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ORAL ARGUMENT NOT YET SCHEDULED

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 11-1131 and consolidated cases

NATIONAL ASSOCIATION OF CLEAN WATER AGENCIES, et al.,

Petitioners,

v.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY et al.,

Respondents.

ON PETITIONS FOR REVIEW OF A FINAL RULE PROMULGATED BY
THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

PROOF BRIEF FOR RESPONDENTS

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DATED: OCTOBER 22, 2012

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IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

NATIONAL ASSOCIATION OF CLEAN WATER AGENCIES, et al.,	)	
Petitioners,	)	
v.	)	**No. 11-1131 (consolidated with 11-1167 and 11-1185)**
ENVIRONMENTAL PROTECTION AGENCY and LISA PEREZ JACKSON, ADMINISTRATOR, EPA,	)	
Respondents.	)	

RESPONDENTS' CERTIFICATE OF COUNSEL

Pursuant to Circuit Rule 28(a)(1), counsel for Respondents United States Environmental Protection Agency and Lisa Perez Jackson submit this certificate as to parties, rulings, and related cases.

(A) Parties and Amici

i. Parties, Intervenors, and Amici Who Appeared in the District Court

This case is a petition for review of final agency action, not an appeal from the ruling of a district court.

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ii. Parties to These Cases

All parties and intervenors appearing in this Court are listed in the Proof Brief for Petitioner Sierra Club and the Page Proof Brief of Municipal Petitioners.

(B) Rulings Under Review

The action under review is "Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Sewage Sludge Incineration Units," 76 Fed. Reg. 15,372 (Mar. 21, 2011).

(C) Related Cases

The case on review has not been previously before this Court or any other court. Undersigned counsel is not aware of any other related cases in this Court or in any other court involving substantially the same parties or similar issues.

Respectfully submitted,

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GLOSSARY

CAA	Clean Air Act
CO	Carbon Monoxide
CWA	Clean Water Act
EPA	Environmental Protection Agency
GACT	Generally Available Control Technology
MACT	Maximum Achievable Control Technology
NACWA	National Association of Clean Water Agencies
NO_x	Nitrogen Oxide
PM	Particulate Matter
POTWs	Publicly Owned Treatment Works
SO_2	Sulfur Dioxide
SSI	Sewage Sludge Incinerator
UPL	Upper Prediction Limit

US EPA ARCHIVE DOCUMENT

TABLE OF CONTENTS

RESPONDENTS' CERTIFICATE OF COUNSEL ii

GLOSSARY v

TABLE OF AUTHORITIES ix

JURISDICTION 1

STATUTES AND REGULATIONS 1

STATEMENT OF ISSUES 1

STATEMENT OF THE CASE 4

I. NATURE OF THE CASE 4

II. BACKGROUND 6

A. Regulation Of Pollutants From Solid Waste Incinerators Under CAA Section 129. 6

B. Regulation Of Hazardous Air Pollutants Under Section 112. 10

C. The Sewage Sludge Incinerator Rule 11

D. Petitioners' Administrative Petitions For Reconsideration 12

STANDARD OF REVIEW 12

SUMMARY OF ARGUMENT 14

ARGUMENT 19

I. EPA'S REGULATION OF SEWAGE SLUDGE INCINERATORS UNDER CAA SECTION 129 IS REASONABLE AND CONSISTENT WITH THE STATUTE. 19

A. Section 129's Plain Language Compels EPA's Interpretation Under *Chevron* Step One. 20

1. This Court has determined that Section 129 unambiguously includes "any" solid waste incineration unit.....20

2. EPA's Rule is consistent with Section 129's plain language and this Court's opinion in *NRDC*.....22

B. Alternatively, EPA's Interpretation Of Section 129 Is Permissible Under *Chevron* Step Two.....25

1. EPA's interpretation gives meaning to Section 129 and Section 112.....25

2. EPA's interpretation is not precluded by the Clean Water Act.....33

II. THE RECORD SUPPORTS EPA'S TECHNICAL DETERMINATION TO ESTABLISH ONLY TWO SUBCATEGORIES OF SEWAGE SLUDGE INCINERATORS.....36

III. EPA'S MACT FLOOR DETERMINATION WAS REASONABLE.....39

A. Consistent With This Court's Precedent And CAA Section 129, EPA Reasonably Used A Statistical Methodology To Estimate The Best Performing 12 Percent Of Existing Units To Determine The MACT Floor.....41

B. EPA Reasonably Accounted For Variability To Set MACT Floors At Levels The Best Performing Sources Could Achieve.....47

1. NACWA's challenge to EPA's methodology to account for variability should be rejected.....47

2. Sierra Club's claims that EPA did not reasonably account for variability should be rejected.....52

C. EPA Appropriately Considered Non-Technology Factors In Estimating The Performance Of The Best Performing SSI Units.....55

D. EPA Reasonably Incorporated Non-Detect Data Into The MACT Floor Calculation.....60

US EPA ARCHIVE DOCUMENT

E. EPA's Decision To Set New Unit Floors At The Existing Source Floors Was Rational....63

IV. EPA'S BEYOND-THE-FLOOR ANALYSIS IS REASONABLE AND SUPPORTED BY THE RECORD....66

A. EPA Appropriately Set MACT Standards For New Multiple Hearth Units At The MACT Floor....66

1. The issue has been waived....66

2. Sierra Club's argument fails on the merits....67

B. EPA Appropriately Considered The Cost Of Beyond-The-Floor Standards....69

V. THE SSI RULE'S MONITORING REQUIREMENTS REASONABLY ENSURE COMPLIANCE WITH EMISSION STANDARDS....73

VI. INTERVENOR MAXWEST LACKS STANDING AND ITS ISSUE IS UNRIPE, OUTSIDE THE SCOPE OF NACWA'S CLAIMS, AND, IN ANY EVENT, LACKS MERIT....77

A. MaxWest Did Not Demonstrate, Nor Could It Demonstrate, Its Standing To Challenge The SSI Rule....77

B. MaxWest's Claim Is Not Ripe For Judicial Review....80

C. The Court Should Not Consider MaxWest's Claim Because It Was Not Raised By Petitioners And There Are No Exceptional Circumstances Warranting Consideration....82

D. MaxWest's Claim Has No Merit....84

CONCLUSION....86

US EPA ARCHIVE DOCUMENT

TABLE OF AUTHORITIES

CASES

Abbott Laboratories v. Gardner,
387 U.S. 136 (1967) 81

Air Transport Ass'n v. FAA,
169 F.3d 1 (D.C. Cir. 1999) 67

American Iron & Steel Inst. v. EPA,
115 F.3d 979 (D.C. Cir. 1997) 47

AMSC Subsidiary Corp. v. FCC,
216 F.3d 1154 (D.C. Cir. 2000) 82

Appalachian Power Co. v. EPA,
251 F.3d 1026 (D.C. Cir. 2001) 13

Barnhart v. Walton,
535 U.S. 212 (2002) 20

Bluewater Network v. EPA,
370 F.3d 1 (D.C. Cir. 2004) 12

**Cement Kiln Recycling Coalition v. EPA*,
255 F.3d 855 (D.C. Cir. 2001) 41, 42, 48, 55

Chem. Mfrs. Ass'n v. NRDC,
470 U.S. 116 (1985) 14, 26

**Chevron U.S.A. Inc. v. NRDC*,
467 U.S. 837 (1984) 13, 25, 26

City of Portland, Oregon v. EPA,
507 F.3d 706 (D.C. Cir. 2007) 85

US EPA ARCHIVE DOCUMENT

* Authorities upon which we chiefly rely are marked with asterisks.

Cohen v. United States,
650 F.3d 717 (D.C. Cir. 2011) 80, 81

Columbia Falls Aluminum Co. v. EPA,
139 F.3d 914 (D.C. Cir. 1998) 40

Davis County v. Solid Waste Mgmt. v. EPA,
101 F.3d 1395 (D.C. Cir. 1996),
amended on reh'g by 108 F.3d 1454 (D.C. Cir. 1997) 7, 23, 37

Entergy Corp. v. Riverkeeper, Inc.,
556 U.S. 208 (2009) 71

Environmental Defense. v. EPA,
489 F.3d 1320 (D.C. Cir. 2007) 47, 50

F.T.C. v. Manager, Retail Credit Co., Miami Branch Office,
515 F.2d 988 (D.C. Cir. 1975) 28

Home Box Office, Inc. v. FCC,
567 F.2d 9 (D.C. Cir. 1977) 85

Husqvarna AB v. EPA,
254 F.3d 195 (D.C. Cir. 2001) 70

Int'l Fabricare, Inst. v. EPA,
972 F.2d 384 (D.C. Cir. 1992) 85

Kennecott v. EPA,
780 F.2d 445 (4th Cir. 1985) 50

Keene Corp. v. United States,
508 U.S. 200 (1993) 45

Lead Indus. Ass'n v. EPA,
647 F.2d 1130 (D.C. Cir. 1980) 13

US EPA ARCHIVE DOCUMENT

Lujan v. Defenders of Wildlife,
504 U.S. 555 (1992) 77

Med. Waste Inst. & Energy Recovery Council v. EPA,
645 F.3d 420 (D.C. Cir. 2011) 40

Mossville Envtl. Action Now v. EPA,
370 F.3d 1232 (D.C. Cir. 2004) 47

Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.,
463 U.S. 29 (1983) 12

**Nat'l Lime Ass'n v. EPA*,
233 F.3d 625 (D.C. Cir. 2000) 42, 45, 55, 76

Nat'l Mining Ass'n v. EPA,
59 F.3d 1351 (D.C. Cir. 1995) 10

Ne. Md. Waste Disposal Auth. v. EPA Maryland,
358 F.3d 936 (D.C. Cir. 2004) 9

NRDC v. EPA,
194 F.3d 130 (D.C. Cir. 1999) 75, 76

**NRDC v. EPA*,
489 F.3d 1250 (D.C. Cir. 2007) 7, 9, 14, 20-24, 29, 30

NRDC v. EPA,
489 F.3d 1364 (D.C. Cir. 2007) 37, 39, 86

NRDC v. EPA,
529 F.3d 1077 (D.C. Cir. 2008) 62

Occidental Permian Ltd. v. FERC,
673 F.3d 1024 (D.C. Cir. 2012) 81

Ratzlaf v. United States,
510 U.S. 135 (1994) 28

US EPA ARCHIVE DOCUMENT

Sierra Club v. EPA,
551 F.3d 1019 (D.C. Cir. 2002, *cert. denied*, 130 S. Ct 1735 (2010) 23

Sierra Club v. EPA (Brick MACT),
479 F.3d 875 (D.C. Cir. 2007) 47, 55

Sierra Club v. EPA,
292 F.3d 895 (D.C. Cir. 2002) 77

**Sierra Club v. EPA*,
167 F.3d 658 (D.C. Cir. 1999) 40, 41, 42, 43, 45, 48, 55, 61

Texas v. United States,
523 U.S. 296 (1998) 81

Texas Rural Legal Aid, Inc. v. Legal Servs. Corp.,
940 F.2d 685 (D.C. Cir. 1991) 61

United States v. Mead Corp.,
533 U.S. 218 (2001) 13

Village of Bensenville v. FAA,
457 F.3d 52 (D.C. Cir. 2006) 82

RULES

D.C. Cir. Rule 28(a) 77

D.C. Cir. Rule 28(a)(7) 1, 77

STATUTES

33 U.S.C. § 1345 ..... 15, 34

33 U.S.C. § 1345(d)(1) 34

33 U.S.C. § 1345(d)(5) 16, 34

US EPA ARCHIVE DOCUMENT

42 U.S.C. § 7401(b)(1) 6

42 U.S.C. § 7412 10

42 U.S.C. § 7412(a)(1) 10

42 U.S.C. § 7412(a)(2) 10

42 U.S.C. § 7412(c)(3) 31

42 U.S.C. § 7412(c)(6) 31

42 U.S.C. § 7412(d) 37

42 U.S.C. § 7412(d)(2), (4) 31

42 U.S.C. § 7412(d)(2)(A), (D) 73

42 U.S.C. § 7412(d)(3)(A) 44

42 U.S.C. § 7412(d)(5) 10, 26

42 U.S.C. § 7412(e)(1)(A) 27

42 U.S.C. § 7412(e)(5) 10, 27

42 U.S.C. § 7412(k)(3)(B) 32

42 U.S.C. § 7412(q)(1) 79

42 U.S.C. § 7414(a)(3) 75

42 U.S.C. § 7423(a)(1)(B) 32

42 U.S.C. § 7429 ..... 1, 7

42 U.S.C. § 7429(a)(1)(A)-(E) 5

42 U.S.C. § 7429(a)(1)(B)-(D) 7

42 U.S.C. § 7429(a)(1)(C) 32

42 U.S.C. § 7429(a)(1)(E) 7, 23

42 U.S.C. § 7429(a)(2) 2, 3, 7, 9, 11, 16, 36, 37, 40, 54, 64, 69

US EPA ARCHIVE DOCUMENT

42 U.S.C. § 7429(a)(3) 75

42 U.S.C. § 7429(a)(4) 11

42 U.S.C. § 7429(c) 74

42 U.S.C. § 7429(g)(1) 5, 7, 21, 23, 24

42 U.S.C. § 7429(g)(2) 9

42 U.S.C. § 7429(g)(4) 9

42 U.S.C. § 7429(g)(6) 8

42 U.S.C. § 7607(b) 1

42 U.S.C. § 7607(d)(7)(B) 3, 66

42 U.S.C. § 7607(d)(8) 19, 86

42 U.S.C. § 7607(d)(9)(A), (C) 12

42 U.S.C. § 7661c(b) 75

CODE OF FEDERAL REGULATIONS

40 C.F.R. § 60.4865 ..... 74, 75

40 C.F.R. § 60.4885 ..... 74, 75

40 C.F.R. § 60.4885-.4915 74

40 C.F.R. § 60.4890 74

40 C.F.R. § 60.4900 74

40 C.F.R. § 60.4930 ..... 8, 12

40 C.F.R. § 60.5185 ..... 74, 75

40 C.F.R. § 60.5205 ..... 74, 75

40 C.F.R. § 60.5205-.5235 75

40 C.F.R. § 60.5210 74

US EPA ARCHIVE DOCUMENT

40 C.F.R. § 60.5220 74

40 C.F.R. § 60.5250 80

40 CFR § 60.5 80

40 C.F.R. pt. 61, subparts C and E..... 57, 58

40 C.F.R. pt. 63, subpart VVV 29

40 C.F.R. pt. 503 ..... 16, 34

40 C.F.R. § 503.1(a)(1) 34

40 C.F.R. § 503.2 57

40 C.F.R. § 503.43 34

FEDERAL REGISTERS

45 Fed. Reg. 33,084, 33,097 (May 19, 1980) 24

58 Fed. Reg. 9248, 9262, 9276-77 (Feb. 19, 1993) 30

63 Fed. Reg. 66,084, 66,087 (Dec. 1, 1998) 11

64 Fed. Reg. 57,572, 57,575 (Oct. 26, 1999)..... 10, 27, 30

64 Fed. Reg. at 57,580 11

65 Fed. Reg. 23,459, 23,461, 23,498, 23,501, 23,503 (Apr. 24, 2000).....21

67 Fed. Reg. 43,112 (June 26, 2002) 31

70 Fed. Reg. 55,568, 55,572 (Sept. 22, 2005) 20

70 Fed. Reg. 74,870 (Dec. 16, 2005) 20

70 Fed. Reg. at 74,880 21

74 Fed. Reg. 51,368, 51,399 (Dec. 7, 2009) 32

75 Fed. Reg. 63,260 (Oct. 14, 2010).....8, 79

75 Fed. Reg. at 63,263 8

US EPA ARCHIVE DOCUMENT

75 Fed. Reg. at 63,264 8

75 Fed. Reg. at 63,268 ..... 37, 38

75 Fed. Reg. at 63,269 50

75 Fed. Reg. at 63,270 ..... 56, 59, 60

75 Fed. Reg. at 63,272-73 ..... 62, 66, 67, 68

75 Fed. Reg. at 63,275-77 71

75 Fed. Reg. at 63,277 ..... 66, 68, 69

75 Fed. Reg. at 63,279 74

75 Fed. Reg. at 63,290 35

76 Fed. Reg. 15,308 (Mar. 21, 2011).....32

76 Fed. Reg. 15,372 (Mar. 21, 2011).....5

76 Fed. Reg. at 15,374 8

76 Fed. Reg. at 15,375 ..... 5, 8, 31

76 Fed. Reg. at 15,376 ..... 12, 75

76 Fed. Reg. at 15,377 15

76 Fed. Reg. at 15,380 65

76 Fed. Reg. at 15,383 ..... 25, 30, 31, 32

76 Fed. Reg. at 15,384 68

76 Fed. Reg. at 15,387 ..... 42, 43, 57, 60

76 Fed. Reg. at 15,388 ..... 63, 65

76 Fed. Reg. at 15,389 50

76 Fed. Reg. at 15,388-92 51

76 Fed. Reg. at 15,391 48

US EPA ARCHIVE DOCUMENT

76 Fed. Reg. at 15,393 71

76 Fed. Reg. at 15,394 12

76 Fed. Reg. at 15,395 33

76 Fed. Reg. at 15,399 67

76 Fed. Reg. at 15,440-41 15

76 Fed. Reg. at 15,443-44 74

76 Fed. Reg. 15,456, 15,513 (Mar. 21 2011).....74

77 Fed. Reg. 25,087 (Apr. 27, 2012) 12

US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

JURISDICTION

The consolidated petitions for review of the Clean Air Act regulation at issue were timely filed under 42 U.S.C. § 7607(b). The Environmental Protection Agency ("EPA") does not challenge Petitioners' standing; however, Petitioner-Intervenor MaxWest Environmental Systems, Inc. has not provided a basis for its standing as required by D.C. Cir. R. 28(a)(7). EPA disputes both MaxWest's standing and the ripeness of the issue it raises.

STATUTES AND REGULATIONS

Pertinent statutory and regulatory provisions are set forth in the addendum.

STATEMENT OF ISSUES

1. Clean Air Act ("CAA" or "Act") Section 129, 42 U.S.C. § 7429, requires EPA to establish emission standards for any "solid waste incineration unit," including "other categories of solid waste incineration units" that combust any type of solid waste, subject to only four exceptions.

   a. Is EPA's regulation of sewage sludge incineration units, which combust sewage sludge (a type of solid waste) and do not fall under any of Section 129's four exceptions, consistent with the unambiguously broad language of Section 129?

b. If Section 129 is ambiguous, is EPA's regulation of sewage sludge incineration units under Section 129 rather than under Section 112 a permissible construction of the statute?

2. CAA Section 129(a)(2), 42 U.S.C. § 7429(a)(2), requires EPA to set emission standards for categories and subcategories of existing units that reflect the performance of the maximum achievable control technology ("MACT"), which must not be "less stringent than the average emissions limitation achieved by the best performing 12 percent of units." Section 129(a)(2) further requires EPA to set emission standards for categories and subcategories of new units that must not be "less stringent than the emissions control that is achieved in practice by the best controlled similar unit," as determined by EPA.

a. Did EPA act arbitrarily, capriciously, or not in accordance with Section 129(a)(2) by using a statistical methodology, in addition to actual emissions test data, to determine the average emission limit achieved by the best performing units?

b. Did EPA reasonably account for variability across the best performing units in setting MACT floors for new and existing sewage sludge incinerators?

US EPA ARCHIVE DOCUMENT

c. Do EPA's MACT floors reasonably reflect the emission levels achieved by the best-performing incinerators, consistent with the requirements of CAA Section 129(a)(2)?

3. Did EPA reasonably exercise its discretionary authority under CAA Section 129(a)(2), 42 U.S.C. § 7429(a)(2), to establish two subcategories of sewage sludge incineration units?

4. Is EPA's decision not to set beyond-the-floor emission standards for new multiple hearth units and all existing units reasonable and consistent with CAA Section 129(a)(2), where EPA determined that the cost of additional emission reductions beyond-the-floor level of control was unreasonable?

5. Does EPA's regulation, which requires both initial and annual emissions testing, and testing to ensure control technologies are operating within set parameters, meet the monitoring requirements of CAA Section 129(c)?

6. Did EPA properly apply CAA Section 307(d)(7)(B), 42 U.S.C. § 7607(d)(7)(B), when it denied NACWA's and Sierra Club's petitions for reconsideration where EPA provided adequate notice of the issues raised in the petitions and the petitions did not demonstrate that the issues were of central relevance to the final rule?

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7. Does MaxWest, which operates a gasifier, have standing to sue and is its issue ripe for review where EPA's regulation does not contain emission standards for gasifiers?

8. Is the gasification issue raised by MaxWest beyond the scope of the issues raised by Petitioners where neither Petitioner questioned whether gasifiers are covered by the regulation or whether gasifiers should be a separate subcategory under the regulation?

9. Was it reasonable for EPA not to respond to the one comment requesting a distinction between gasification and combustion where the regulation has no emission standards for gasifiers and the comment would not have changed the outcome of EPA's regulation?

STATEMENT OF THE CASE

I. NATURE OF THE CASE

This case concerns EPA's regulation of air emissions released from the combustion of sewage sludge at publicly owned treatment works ("POTWs"). Domestic sewage generated by the public is sent by sewer systems to POTWs, which then treat the domestic sewage, creating a solid, semi-solid, or liquid residue known as sewage sludge (a type of solid waste). Differences Between Sewage Sludge, Medical Wastes, Hazardous Wastes and Municipal Solid Wastes and the Incinerators Used to Combust these Materials ("Sludge Memo.") at 1 [JAXX].

Over 200 POTWs currently burn sewage sludge in a sewage sludge incineration unit to reduce the volume of sludge that will eventually be disposed. Fact Sheet at 1 [JAXX]; Regulatory Impact Analysis at 2-1 [JAXX]. The combustion of sewage sludge releases various air pollutants, some of which are hazardous (*e.g.*, carbon monoxide, lead, and mercury). 76 Fed. Reg. 15,372, 15,375 (Mar. 21, 2011).

CAA Section 129 requires EPA to establish emission standards for "any" incineration unit that combusts "any" solid waste, with four narrow exceptions that are inapplicable here. 42 U.S.C. §§ 7429(a)(1)(A)-(E), 7429(g)(1). These standards must be based on the maximum achievable control technology ("MACT") available for each regulated air pollutant. To regulate emissions from sewage sludge incinerators, EPA issued a final rule on March 21, 2011, under CAA Section 129 entitled "Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Sewage Sludge Incineration Units," 76 Fed. Reg. 15,372 (Mar. 21, 2011) ("SSI Rule" or "Rule"). The Rule will reduce emissions of nine air pollutants from two subcategories of sewage sludge incinerators and lead to significant annual health benefits. Regulatory Impact Analysis at 2-3 [JAXX]. In fact, EPA estimates that the SSI Rule will reduce annual nationwide emissions from sewage sludge incinerators by four pounds of mercury, 450 tons of acid gases, 58 tons of particulate matter, and 1.7 tons of cadmium and lead. Regulatory Impact Analysis at 3 [JAXX].

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Municipal Petitioners, the National Association of Clean Water Agencies and Hatfield Township (collectively "NACWA"), are a group of municipalities and municipal clean water agencies operating POTWs. NACWA challenges EPA's authority to regulate sewage sludge incinerators under Section 129 and argues that even if it was proper for EPA to proceed under Section 129, various technical flaws in EPA's analysis resulted in the Rule being overly stringent. In contrast, Petitioner Sierra Club, a nonprofit environmental organization, raises a variety of legal and technical arguments attempting to show that the Rule is not stringent enough. As explained herein, however, neither of these competing positions is correct because the Rule is entirely consistent with the statute and well-supported by the administrative record.

Finally, Petitioner-Intervenor, MaxWest Environmental Systems asserts a claim distinct from Petitioners that is not properly presented here and is meritless in any event.

II. BACKGROUND

A. Regulation Of Pollutants From Solid Waste Incinerators Under CAA Section 129.

The CAA is intended to "protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population." 42 U.S.C. § 7401(b)(1). CAA Section 129 – entitled

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"Solid Waste Combustion" – requires EPA to establish emission standards for "solid waste incineration units." *Id.* § 7429. A "solid waste incineration unit" is "a distinct operating unit of *any* facility which combusts *any* solid waste material from commercial or industrial establishments or the general public (including single and multiple residences, hotels, and motels)." *Id.* § 7429(g)(1) (emphasis added). Congress identified the following categories of solid waste incineration units: those combusting municipal solid waste, hospital and medical waste, or industrial or commercial waste. *Id.* § 7429(a)(1)(B)-(D). Congress also required EPA to set standards for "other categories of solid waste incineration units" that combust solid waste not specifically identified. *Id.* § 7429(a)(1)(E); *see Davis County v. Solid Waste Mgmt. v. EPA*, 101 F.3d 1395, 1403 (D.C. Cir. 1996), *amended on reh'g by* 108 F.3d 1454 (D.C. Cir. 1997). This Court has held that the plain language of Section 129 requires EPA to regulate any unit combusting any solid waste unless that unit falls within one of four narrow exceptions to the definition of solid waste incineration unit. *NRDC v. EPA*, 489 F.3d 1250, 1255 (D.C. Cir. 2007); 42 U.S.C. § 7429(g)(1). Section 129 also gives EPA discretion to "distinguish among classes, types . . . and sizes of units within a category" to establish emission standards. 42 U.S.C. § 7429(a)(2).

POTWs treat domestic sewage from the public, thereby generating sewage sludge – a type of "solid waste" – that is a "solid, semi-solid, or liquid residue

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generated during the treatment of domestic sewage in a treatment works."[1] 40 C.F.R. § 60.4930. To reduce the volume of sewage sludge, POTWs can burn the sludge in a "sewage sludge incineration unit." 76 Fed. Reg. at 15,374; 40 C.F.R. § 60.4930. Because sewage sludge incinerators combust solid waste (sewage sludge), they are one of the "other categories of solid waste incineration units" that EPA is required to regulate under Section 129. The combustion of sewage sludge releases various hazardous and non-hazardous air pollutants, "some of which exist in the waste feed material and are released unchanged during combustion, and some of which are generated as a result of the combustion process itself." 75 Fed. Reg. 63,260, 63,264 (Oct. 14, 2010); *see* 76 Fed. Reg. at 15,375.

CAA Section 129 directs EPA to set emission standards that "reflect the maximum degree of reduction in emissions" of air pollutants, "taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, [that EPA]

---

[1] Under CWA Section 129, the term "solid waste" has the definition established under the Resource Conservation and Recovery Act. 42 U.S.C. § 7429(g)(6). On March 11, 2011, EPA issued a rule under that statute that included sewage sludge in the definition of non-hazardous solid waste. *See* 76 Fed. Reg. 15,456, 15,513 (Mar. 21, 2011). NACWA filed a petition for review of that solid waste definition in this Court. *See Waste Management, Inc. v. EPA*, Case No. 11-1148 (D.C. Cir. filed May 19, 2011). On November 1, 2011, the Court granted EPA's motion to hold the case in abeyance pending the completion of EPA's administrative reconsideration process. *See id.* ECF No. 1339179.

US EPA ARCHIVE DOCUMENT

determines is achievable for new or existing units in each category." 42 U.S.C. § 7429(a)(2). This is referred to as "maximum achievable control technology" or "MACT" standards. *See Ne. Md. Waste Disposal Auth. v. EPA*, 358 F.3d 936, 940 (D.C. Cir. 2004); *NRDC*, 489 F.3d at 1254. EPA develops MACT standards through a two-step process. First, EPA determines the minimum level of stringency – the "MACT floor." For new units, the MACT floor is "the emissions control . . . achieved in practice by the best controlled similar unit." 42 U.S.C. § 7429(a)(2).[2] For existing units, the MACT floor is "the average emissions limitation achieved by the best performing 12 percent of units in the category." [3] *Id.* Second, EPA determines whether more stringent "beyond-the-floor standards" are achievable after consideration of cost, non-air quality health and environmental impacts, and energy requirements. *Id*. The standards for new units are called New Source Performance Standards and the standards for existing units are called Emission Guidelines.

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[2] A "new" solid waste incineration unit is one "the construction of which is commenced after [EPA] proposed requirements under [Section 129] establishing emission standard or other requirements . . . ." 42 U.S.C. § 7429(g)(2).

[3] An "existing" unit is any unit other than a new unit. 42 U.S.C. § 7429(g)(4).

US EPA ARCHIVE DOCUMENT

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B. Regulation Of Hazardous Air Pollutants Under Section 112.

CAA Section 112 requires EPA to establish emission standards for "major" and "area" sources of hazardous air pollutants. 42 U.S.C. § 7412. A "major" source is a stationary source that has the potential to emit 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants. *Id.* § 7412(a)(1). An "area" source is any stationary source that is not a major source. *Id.* § 7412(a)(2). For area sources, Section 112 authorizes EPA to promulgate standards that are based on "generally available control technology" ("GACT") rather than MACT. 42 U.S.C. § 7412(d)(5). Unlike MACT floor standards, EPA can consider cost in determining GACT standards for a particular area source category. 42 U.S.C. § 7412(d)(5); *see Nat'l Mining Ass'n v. EPA*, 59 F.3d 1351, 1353 (D.C. Cir. 1995) (standards based on "generally available control technology").

CAA Section 112(e), entitled "Schedule for standards and review," contains a specific scheduling provision for POTWs that is different from the schedule for establishing standards for other Section 112 source categories and provides that EPA "shall promulgate standards pursuant to subsection (d) . . . applicable to publicly owned treatment works (as defined in title II of the Federal Water Pollution Control Act . . .) not later than 5 years after November 15, 1990." 42 U.S.C. § 7412(e)(5). EPA published emission standards for POTWs in 1999. 64

Fed. Reg. 57,572 (Oct. 26, 1999) ("1999 POTW Rule"). Those standards did not apply to sewage sludge incinerators. In fact, EPA stated in the proposal for the 1999 POTW Rule that "[s]ewage sludge incineration will be regulated under Section 129 of the Act, and will be included in the source category Other Solid Waste Incinerators[.]" 63 Fed. Reg. 66,084, 66,087 (Dec. 1, 1998).[4]

C. The Sewage Sludge Incinerator Rule

On March 21, 2011, EPA issued the SSI Rule under CAA Section 129 to establish New Source Performance Standards and Emission Guidelines for nine air pollutants emitted by sewage sludge incinerators.[5] Prior to issuance of the Rule, EPA sent information collection requests to nine entities operating SSI units, requesting any existing emissions information from these facilities and requiring emissions testing. Using its discretionary authority under CAA Section 129(a)(2), 42 U.S.C. § 7429(a)(2), EPA also established two subcategories of new and

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[4] The 1999 POTW Rule regulated emissions from sources within the POTW other than sewage sludge incinerators, *e.g.*, volatilized emissions from influent waste stream conveyance channels, bar screens, grit chambers, grinders, pump stations, aerated feeder channels, primary clarifiers, primary effluent channels, and primary screening stations. *See* 64 Fed. Reg. at 57,580.

[5] The nine pollutants are: cadmium, carbon monoxide ("CO"), hydrogen chloride, lead, mercury, nitrogen oxides ("NO_x"), particulate matter ("PM"), polycholorinated dibenzo-p-dioxins and polychlorinated dibenzofurans, and sulfur dioxide ("SO_2"). 42 U.S.C. § 7429(a)(4). Of those, SO_2,, NO_x, CO, and PM are non-hazardous pollutants.

US EPA ARCHIVE DOCUMENT

existing sewage sludge incinerators based on their class, type, and size: multiple hearth incinerators and fluidized bed incinerators. 76 Fed. Reg. at 15,376; *see* 40 C.F.R. § 60.4930. EPA determined that beyond-the-floor MACT standards were not warranted for these subcategories and therefore adopted MACT floor standards for each of the nine pollutants emitted from the multiple hearth and fluidized bed sewage sludge incinerators. 76 Fed. Reg. at 15,394.

D. Petitioners' Administrative Petitions For Reconsideration

On May 20 and 25, 2011, Petitioners submitted separate administrative petitions for reconsideration. EPA denied those petitions on April 6, 2012, and published notice of the denials. 77 Fed. Reg. 25,087 (April 27, 2012).

STANDARD OF REVIEW

Under CAA Section 307(d)(9), the Court may reverse EPA's action only if it is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law," or "in excess of statutory jurisdiction, authority, or limitations, or short of statutory right." 42 U.S.C. § 7607(d)(9)(A), (C). This standard is narrow, and a court is not to substitute its judgment for the Agency's. *Bluewater Network v. EPA*, 370 F.3d 1, 11 (D.C. Cir. 2004). Where EPA has considered the relevant factors and articulated a rational connection between the facts found and the choices made, its regulatory choices must be upheld. *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983); *see also Lead Indus. Ass'n*

US EPA ARCHIVE DOCUMENT

v. EPA, 647 F.2d 1130, 1158 (D.C. Cir. 1980) ("[W]here there is evidence in the record which supports [the Administrator's] judgments, this court is not at liberty to substitute its judgment for the Administrator's."). "That the evidence in the record may also support other conclusions, even those that are inconsistent with [EPA's], does not prevent [the court] from concluding that [its] decisions were rational and supported by the record." *Lead Indus. Ass'n.*, 647 F.2d at 1160 (citations omitted). There also is "no question that [EPA] determinations based upon highly complex and technical matters are entitled to great deference." *Appalachian Power Co. v. EPA*, 251 F.3d 1026, 1035 (D.C. Cir. 2001) (citations and internal quotations marks omitted).

Judicial deference also extends to an agency's interpretation of a statute it administers. *United States v. Mead Corp.*, 533 U.S. 218, 227-31 (2001); *Chevron U.S.A. Inc. v. NRDC*, 467 U.S. 837, 842-45 (1984). Under *Chevron*, if Congress has "directly spoken to the precise question at issue," that intent must be given effect. 467 U.S. at 842-43. If, however, "the statute is silent or ambiguous with respect to the specific issue, the question for the court is whether the agency's answer is based on a permissible construction of the statute." *Id.* at 843. To uphold EPA's interpretation, "[the Court] need not find that it is the only permissible construction that EPA might have adopted but only that EPA's understanding of [the] very 'complex statute' is a sufficiently rational one to

US EPA ARCHIVE DOCUMENT

preclude a court from substituting its judgment for that of EPA." *Chem. Mfrs. Ass'n v. NRDC*, 470 U.S. 116, 125 (1985) (citation omitted).

SUMMARY OF ARGUMENT

The threshold statutory issue here is whether EPA must regulate sewage sludge incineration units under CAA Section 129 or Section 112. Under a *Chevron* step one analysis, the answer is Section 129. The unambiguous language of Section 129 requires EPA to regulate emissions from the combustion of "any" solid waste by "any" of four enumerated categories of incineration units, including "other categories of solid waste incineration units," subject to only four exceptions. Here, EPA correctly determined that Section 129 requires the regulation of emissions from incineration units that combust sewage sludge – a solid waste derived from the treatment of domestic sewage. EPA's determination is compelled by this Court's decision in *NRDC v. EPA*, 489 F.3d 1250, 1255 (D.C. Cir. 2007), where the Court found that the broad language of Section 129 requires regulation of "any" solid waste incineration unit, subject only to four narrow exceptions. None of these exceptions applies here, nor does NACWA argue that they do.

NACWA ignores this Court's decision in *NRDC* and carves out one word in Section 129 – "from" – to argue that EPA cannot regulate sewage sludge incinerators under that Section because sewage sludge does not come "from" commercial or industrial establishments or the general public; rather, it comes

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"from" the existence and treatment of domestic sewage. This argument is inconsistent with Section 129's required regulation of "any" solid waste combusted in "any" incineration unit and ignores that sewage sludge *only* exists because of the treatment of domestic sewage. Thus, it is inconsequential whether sewage sludge comes directly "from" the general public or indirectly from the treatment of domestic sewage that is "from" the general public.

Even if Section 129 is ambiguous, however, EPA's regulation of sewage sludge incinerators under that Section is a permissible construction of the statute and should be upheld under *Chevron* step two. EPA's interpretation gives effect not only to the broad language in Section 129, but also to the plain language of Section 112 – on which NACWA relies. Section 112 says nothing about incineration units located at a POTW and merely required EPA (by a certain deadline) to establish emission standards for hazardous air pollutants from POTWs in general. In contrast, Section 129 speaks specifically to solid waste incineration units and requires EPA to regulate "other categories" of solid waste incinerators, which includes sewage sludge incinerators that do not fall under any of the four narrow exceptions. Thus, when reading the statute as a whole, EPA's interpretation is the only one that gives meaning to both Sections 112 and 129.

Further, NACWA's reliance on the Clean Water Act's ("CWA") regulation of sewage sludge incinerators is unavailing. CWA Section 405, 33 U.S.C. § 1345,

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and EPA's corresponding regulations at 40 C.F.R. Part 503, apply to the disposal of sewage sludge and subject sewage sludge incinerators to air emission limits for certain air pollutants. Although a sewage sludge incinerator can be subject to emission standards under both the CWA and CAA, CWA Section 405(d)(5) specifically states that nothing in Section 405 is intended to waive more stringent requirements of the CWA or any other federal law. Thus, nothing in the CWA precludes or undermines EPA's regulation of sewage sludge incinerators under CAA Section 129.

EPA also reasonably exercised its statutory discretion under Section 129 to establish two subcategories of sewage sludge incinerators and NACWA fails to point to any record evidence to cast any doubt on that determination. Based on the record, EPA reasonably established only two subcategories of sewage sludge incinerators – fluidized beds and multiple hearths. EPA requested comments on the subcategorization issue and no commenter – including NACWA – provided sufficient information to support additional subcategories.

EPA's MACT floor determination also was reasonable. First, contrary to NACWA's and Sierra Club's arguments, CAA Section 129(a)(2), 42 U.S.C. § 7429(a)(2), allows for reasonable estimation of the emissions performance of the top twelve percent of units. Here, EPA used a statistical analysis to demonstrate that it collected sufficient data to reasonably estimate the emissions of the top

US EPA ARCHIVE DOCUMENT

twelve percent of existing units. Second, EPA's approach to collecting and analyzing emissions data from information collection requests and state environmental databases was rational. EPA also considered non-technology factors in collecting the emissions data, and considered all reliable data it was able to collect that represent current conditions. Third, EPA reasonably accounted for variability in the operating conditions of the best performing facilities by using data from different facilities across the country during different times of the year, and using a statistical methodology called the Upper Prediction Limit to determine the MACT floors. Fourth, EPA reasonably addressed data that was at or below test method detection levels. To ensure reliability of the data and account for measurement variability, EPA applied a methodology to address the use of data below the detection levels in the MACT floor calculations. This approach allowed the Agency to use actual emissions test data while minimizing the effect of test(s) with an inordinately high detection level. In addition, EPA correctly set new unit floors at existing source floor levels for certain Section 129 pollutants, to ensure that the level of the new unit floors were not less stringent than the existing source floors, consistent with Section 129.

EPA's beyond-the-floor analysis is also reasonable and supported by the record. EPA appropriately did not set beyond-the-floor standards for new multiple hearth units because there are no more effective controls that can be placed on

US EPA ARCHIVE DOCUMENT

those units that are not already required to meet the MACT floors. Further, EPA's construction of Section 129 to allow the Agency to consider cost effectiveness in deciding whether or not to set beyond the floor standards is reasonable. Where, as here, Congress directed EPA to consider cost in its beyond-the-floor analysis, but did not mandate a specific method of cost analysis, EPA appropriately considered whether beyond-the-floor reductions are achievable, and then considered cost and other factors (including cost-effectiveness) in deciding whether to require additional reductions.

EPA's monitoring requirements also are reasonable. The Rule requires initial and annual emissions testing (or, in the alternative, continuous monitoring). These requirements ensure that the standards are met. The initial testing also provides the basis for setting the parameters under which the facilities' control technologies must operate to meet emission standards and the Rule requires parameter testing to ensure that all control technologies are operating efficiently. The Rule's monitoring requirements achieve Section 129's recognized purpose by providing a reasonable assurance of compliance with the emission standards and any evidence that would be relevant in an enforcement proceeding.

Finally, Petitioner-Intervenor MaxWest has no standing and its claim is not ripe for review. Although a gasifier is a type of sewage sludge incinerator, it does not fall under either of the SSI Rule's regulated subcategories (fluidized bed and

US EPA ARCHIVE DOCUMENT

multiple hearth units) and therefore is not subject to emission standards under the Rule. Thus, MaxWest has no injury sufficient to establish standing or ripeness.

Even if MaxWest's claim is considered, it does not fall within the scope of those raised by NACWA. MaxWest argues not for further refinement of the two subcategories (like NACWA does), but instead argues for an entirely distinct subcategory specifically for gasifiers or for exclusion of gasifiers from the Rule entirely. Moreover, even on the merits of MaxWest's argument, EPA was not required to respond to the *one* comment requesting exclusion of gasifiers from the SSI Rule. There is no substantial likelihood, under CAA Section 307(d)(8), 42 U.S.C. § 7607(d)(8), that the Rule would have been changed at all based on that comment because the Rule did not address emission standards for gasifiers.

For all of these reasons, the Court should deny the petitions for review in their entirety.

ARGUMENT

I. EPA'S REGULATION OF SEWAGE SLUDGE INCINERATORS UNDER CAA SECTION 129 IS REASONABLE AND CONSISTENT WITH THE STATUTE.

Chevron guides review of NACWA's claim that EPA cannot regulate sewage sludge incinerators under CAA Section 129. The Court "must decide (1) whether the statute unambiguously forbids the Agency's interpretation, and if not, (2) whether the interpretation, for other reasons exceeds the bounds of the

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permissible." *Barnhart v. Walton*, 535 U.S. 212, 218 (2002). Here, the plain language of Section 129 supports EPA's position. Further, even if Section 129 is ambiguous, EPA's interpretation is reasonable and consistent with the statute.

A. Section 129's Plain Language Compels EPA's Interpretation Under *Chevron* Step One.

1. This Court has determined that Section 129 unambiguously includes "any" solid waste incineration unit.

This Court already determined that the unambiguous language of Section 129 is broad and plainly includes "any" solid waste incineration unit. *NRDC v. EPA*, 489 F.3d at 1255. EPA's interpretation here is compelled by both the language of Section 129 and this Court's precedent.

In 2005, EPA issued two rules under Section 129 concerning solid waste incinerators that are relevant to understanding the context for EPA's SSI Rule. The first rule concerned the definitions of "solid waste" and "commercial and industrial waste" under Section 129. 70 Fed. Reg. 55,568 (Sept. 22, 2005) ("CISWI Definitions Rule"). In that rule, EPA defined "commercial or industrial waste" as only including waste that is combusted at a facility whose design did not provide for energy recovery or whose design operated without energy recovery. *Id.* at 55,572. The second rule established standards under Section 129 for various "other categories of solid waste incineration units," but did not include sewage sludge incinerators. 70 Fed. Reg. 74,870 (Dec. 16, 2005) ("OSWI" Rule). In the

US EPA ARCHIVE DOCUMENT

preamble to that rule, EPA explained that it intended to regulate sewage sludge incinerators under Section 112 rather than under Section 129. *See id.* at 74,880 (citing 65 Fed. Reg. 23,459, 23,501 (Apr. 24, 2000)).

The CISWI Definitions Rule and OSWI Rule each were challenged in the D.C. Circuit. *See NRDC v. EPA*, 489 F.3d 1250 (D.C. Cir. 2007) (CISWI Definitions Rule); *Sierra Club v. EPA*, No. 06-1066 (D.C. Cir. filed Feb. 14, 2006) (OSWI Rule). The CISWI Definitions Rule was challenged on the ground that the definitions conflicted with the plain language of Section 129 and improperly constricted the class of "solid waste incineration units" that were subject to emission standards under Section 129 by excluding units combusting commercial and industrial waste for energy recovery. The *NRDC* Court rejected EPA's definitions, finding that they conflicted with the plain language of Section 129. Specifically, the Court found that the definition of "solid waste incineration unit," "plainly and broadly" means "a distinct operating unit of *any* facility which combusts *any* solid waste material from commercial or industrial establishments or the general public . . . .'" 489 F.3d at 1257 (quoting 42 U.S.C. § 7429(g)(1)) (emphasis added). "The word 'any' is usually understood to be all inclusive." *Id.* (citation omitted). Moreover, Congress enumerated only four exclusions to the definition of "solid waste incineration unit" and the exclusion established by EPA for certain commercial or industrial waste was not among them. *Id*. at 1259-60.

US EPA ARCHIVE DOCUMENT

The Court therefore concluded that EPA's definition of "solid waste incineration units combusting commercial or industrial waste" conflicted with Section 129's plain language because it impermissibly excluded operating units designed for energy recovery that combusted solid waste. *Id*.

Subsequently, the OSWI Rule was held in abeyance pending EPA's reconsideration of that rule after the *NRDC* decision on the CISWI Definitions Rule. *See Sierra Club v. EPA*, No. 06-1066, Doc # 1087021. Once finalized, the new OSWI rule will cover other categories of solid waste incineration units except for sewage sludge incinerators, which are covered by the SSI Rule.

The intervening *NRDC* opinion caused EPA to reevaluate its consideration of solid waste incineration units covered under Section 129. Most notably here, EPA had to reconsider its prior statement in the preamble to the OSWI Rule that sewage sludge incinerators would be regulated under Section 112.

2. EPA's Rule is consistent with Section 129's plain language and this Court's opinion in *NRDC*.

Consistent with Section 129's unambiguously broad language and the Court's opinion in *NRDC*, EPA determined that sewage sludge incineration units are a type of facility that combusts solid waste and therefore are covered under Section 129. As the Court found in *NRDC*, solid waste incineration units include *any* such unit that combusts *any* solid waste material "at all[,]" subject only to four

US EPA ARCHIVE DOCUMENT

specific exceptions. *NRDC*, 489 F.3d at 1257-58. Further, the plain language of Section 129(a)(1)(E) requires EPA to establish standards for "other categories of solid waste incineration units." 42 U.S.C. § 7429(a)(1)(E). That broad language specifically allows EPA the "discretion to identify '*other* categories of solid waste incineration units.'" *Davis County*, 101 F.3d at 1405 (quoting 42 U.S.C. § 7429(a)(1)(E)). Section 129 also excludes four categories of solid waste incinerators from the definition of solid waste incineration units. 42 U.S.C. § 7429(g)(1); *see Davis County*, 101 F.3d at 1398. None of those four exceptions applies to sewage sludge incinerators, which NACWA does not dispute. Thus, EPA reasonably interpreted the "other categories" of solid waste incineration units under Section 129 to include sewage sludge incinerators, which combust solid waste.

The *NRDC* court made clear that EPA cannot broaden the four exclusions in Section 129. Ignoring that precedent, NACWA impermissibly tries to constrict "the scope of this plain, broad language" to create another exclusion for a particular type of solid waste incineration unit. *NRDC*, 489 F.3d at 1258. Where, however, "Congress explicitly enumerates certain exceptions to a general prohibition, additional exceptions are not to be implied, in the absence of a contrary legislative intent." *Sierra Club v. EPA*, 551 F.3d 1019, 1028 (D.C. Cir. 2008) (citation omitted). Had Congress intended to exclude sewage sludge

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incinerators under Section 129, it would have expressly provided another exemption. *Cf. NRDC*, 489 F.3d at 1259 ("Had the Congress intended to exempt all units that combust waste for the purpose of recovering thermal energy, it could likewise have expressly provided for their exemption in the statute.").

To create this implicit exception NACWA focuses on one word – "from" – claiming that sewage sludge is not "*from* commercial or industrial establishments or the general public . . . ." 42 U.S.C. § 7429(g)(1) (emphasis added). NACWA claims instead that sewage sludge is "unique and distinct from the domestic sewage from which sludge is generated in the POTW" and therefore cannot be said to come "from" the general public. Page Proof Brief of Municipal Petitioners ("NACWA Br.") 22-24. Thus, it argues that the word "from" means that only the "proximate" source of the waste can be considered rather than the "original" source of the waste. *Id.* 21.

NACWA's constrictive interpretation of Section 129 based solely on the word "from" draws an artificial line between the "proximate" and "original" source of the solid waste material. EPA previously determined in another rulemaking that sewage sludge is a "solid waste," which NACWA has separately challenged. *See supra* n.1. EPA, however, historically has treated sewage sludge as a "solid waste." *See* 75 Fed. Reg. at 63,263; 45 Fed. Reg. 33,097 (May 19, 1980) (treating sewage sludge as a solid waste in its 1980 Identification and Listing of Hazardous

US EPA ARCHIVE DOCUMENT

Waste rulemaking). Thus, the only question for EPA to consider here was whether the particular solid waste at issue – sewage sludge – comes "from commercial or industrial establishments or the general public[,]" which it does.

Sewage sludge is "a solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a [POTW] . . . ." Sludge Memo. at 1 [JAXX]. "Domestic sewage is generated by residences, businesses, etc. . . ." *Id.* Thus, without the domestic sewage that is generated by the public and then sent to POTWs to be treated, there would be no sewage sludge to be combusted. The POTWs' treatment of domestic sewage to separate out the sewage sludge to be combusted does not change that fact. 76 Fed. Reg. at 15,383. Because sewage sludge is a direct by-product of the treatment of the domestic sewage that comes from the public, EPA reasonably determined that sewage sludge comes "from" the public and, thus, that sewage sludge incinerators combust solid waste from the general public.

B. Alternatively, EPA's Interpretation Of Section 129 Is Permissible Under *Chevron* Step Two.

1. EPA's interpretation gives meaning to Section 129 and Section 112.

Even if this Court concludes that the language in Section 129(g)(1) is ambiguous, EPA's interpretation is a permissible construction of the statute and should be upheld under *Chevron* step two. *Chevron*, 467 U.S. at 843. EPA's

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interpretation does not have to be the only permissible one – it only need be sufficiently rational to preclude the Court from substituting its judgment for that of EPA. *Chem. Mfrs. Ass'n*, 470 U.S. at 125. If the Agency's "choice represents a reasonable accommodation of conflicting policies that were committed to the agency's care by the statute, [the court] should not disturb it unless it appears from the statute or its legislative history that the accommodation is not one that Congress would have sanctioned." *Chevron*, 467 U.S. at 845 (citation and internal quotation marks omitted).

Here, according to NACWA, EPA can only regulate sewage sludge incinerators under CAA Section 112.[6] NACWA Br. 24-28. NACWA relies solely on Subsection 112(e)(5), which is contained in the section entitled "Schedule for standards and review" and provides that EPA "shall promulgate standards pursuant to subsection (d) of this section applicable to publicly owned treatment works (as

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[6] NACWA never explains why regulation under Section 112 rather than Section 129 would make any meaningful difference for its members. Presumably, NACWA believes that standards under Section 112 would be based on GACT that can account for cost and, thus, would be less stringent than MACT floor standards under Section 129 that cannot account for cost. NACWA offers no support for any such hypothesis. EPA notes that Section 112 provides the Agency discretion to establish GACT standards for area sources, but EPA may choose not to exercise that discretion in a particular case. 42 U.S.C. § 7412(d)(5). Further, GACT standards are not necessarily less stringent than MACT standards. For example, EPA may conclude that the same emission levels that reflect MACT also are "generally available control technology" after consideration of cost.

US EPA ARCHIVE DOCUMENT

defined in title II of the [CWA] not later than 5 years after November 15, 1990." 42 U.S.C. § 7412(e)(5). NACWA's argument is that Subsection 112(e)(5)'s reference to "publicly owned treatment works" which encompasses sewage sludge incinerators, means that EPA can only regulate sewage sludge incinerators under that Section. NACWA Br. 24. The fact that POTWs include sewage sludge incinerators, however, is irrelevant to whether Section 112(e)(5) is the exclusive regulatory provision for those incinerators. The plain language of Section 112(e)(5) merely provides a deadline for EPA to establish emission standards for hazardous air pollutants from POTWs that is different from the overall schedule for emission standards for other source categories in Section 112(e)(1).[7] EPA promulgated those initial standards in the 1999 POTW Rule, which did not include emission standards for sewage sludge incineration units. 64 Fed. Reg. 57,572 (Oct. 26, 1999) (stating that sewage sludge incineration units would be regulated under Section 129).[8] Nothing in the plain language of Section 112(e)(5) requires EPA to

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[7] Section 112(e)(1) contains other deadlines for EPA to complete regulation of certain specified percentages of listed source categories, including an initial requirement that 40 listed source categories be regulated within two years of the enactment of the 1990 CAA Amendments. 42 U.S.C. § 7412(e)(1)(A). Section 112(e)(5) was intended to provide additional time for EPA to issue regulations for POTWs under Section 112.

[8] EPA did not receive any comments on the 1999 POTW Rule regarding the regulation of sewage sludge incinerators under Section 129.

US EPA ARCHIVE DOCUMENT

establish emission standards for sewage sludge incinerators located within a POTW.

Moreover, nothing in the legislative history that NACWA cites supports that Congress intended sewage sludge incinerators – as opposed to other parts of the POTW – to be regulated only under Section 112. *See* NACWA Br. 25-26. Like Section 112(e)(5), the legislative history on which NACWA relies only speaks generally to regulation of "treatment works" and not specifically to the regulation of "incinerators," which Congress then specifically addressed in Section 129. Also, nothing in the legislative history speaks to whether sewage sludge incinerators should be regulated under Section 129 or Section 112. NACWA's cited legislative history cannot be used to "cloud a statutory text that is clear." *Ratzlaf v. United States*, 510 U.S. 135, 147-48 (1994).

When read together, it is clear that Congress did not intend for Section 112 to trump regulation of solid waste incinerators under Section 129. "The principle that a specific statutory provision prevails over a more general provision is established beyond question." *F.T.C. v. Manager, Retail Credit Co., Miami Branch Office*, 515 F.2d 988, 993 (D.C. Cir. 1975) (citations omitted). "However inclusive may be the general language of a statute, it will not be held to apply to a matter specifically dealt with in another part of the same enactment . . . ." *Id.* at 994, n.10 (citations and internal quotation marks omitted). Section 129

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specifically addresses solid waste incineration units and applies to certain pollutants (some of which are not hazardous air pollutants) from *any* solid waste incineration unit. *See NRDC*, 489 F.3d at 1256. Section 112(e)(5), however, is more general and applies to all hazardous air pollutants from all other sources within POTWs including, but not limited to: volatilized emissions from influent waste stream conveyance channels, bar screens, grit chambers, grinders, pump stations, aerated feeder channels, primary clarifiers, primary effluent channels, and primary screening stations. *See, e.g.*, 40 C.F.R. Part 63, Subpart VVV (national emission standards for hazardous air pollutants from POTWs). EPA's interpretation gives meaning and effect to both sections: Section 129 requires emission standards for certain pollutants from sewage sludge incinerators within POTWs, whereas Section 112 requires emissions standards for hazardous air pollutants from other parts of the POTW that do not combust solid waste and, thus, are not solid waste incineration units.

NACWA argues that EPA's denial of NACWA's petition for reconsideration seemed to acknowledge that Sections 112 and 129 "are in conflict and ambiguous." NACWA Br. 28. That is not the case and EPA does not maintain that either section is ambiguous or that they are in conflict. EPA explained that

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> [g]iven the broad definition of solid waste incineration in section 129, as well as the context of CAA section 112(e)(5), which is a provision found in a subsection of CAA section 112 that governs the timing of emission regulations, it is reasonable for the EPA to consider both provisions and to conclude that CAA section 129(g)'s all-encompassing definition of solid waste incineration unit requires regulation of [sewage sludge incinerators] under CAA section 129."

NACWA Petition Denial at 3 [JAXX] (citing 76 Fed. Reg. at 15,383) (emphasis in original). Nothing in EPA's denial letter acknowledges any ambiguity or conflict between these two sections.

NACWA also relies on past EPA statements to argue that EPA can only regulate sewage sludge incinerators under Section 112. NACWA Br. 11. Although EPA's interpretation of whether it can regulate sewage sludge incinerators under Section 112 or 129 changed over the years prior to the *NRDC* decision, the fact remains that the *NRDC* Court made it abundantly clear that the broad language of Section 129 includes "any" incineration unit that combusts "any" solid waste, with only four exceptions that do not apply here. 489 F.3d at 1257. This decision came *after* the various statements on which NACWA relies. *See* NACWA Br. 11-12 (citing, *e.g.*, 57 Fed. Reg. 31,576 (July 16, 1992) (listing sewage sludge incinerators under Section 112 on the initial list of major and area source categories); 58 Fed. Reg. 9248, 9262, 9276-77 (Feb. 19, 1993) (listing sewage sludge incinerators on the Section 112 list of sources); 64 Fed. Reg. at 57,575 (stating that sewage sludge incinerators will be subject to Section 129); 67

US EPA ARCHIVE DOCUMENT

Fed. Reg. 43,112 (June 26, 2002) (including sewage sludge incinerators on the Section 112 list of area sources)). Thus, consistent with this Court's opinion in *NRDC* and regardless of EPA's past statements that pre-date that case, EPA must now regulate sewage sludge incinerators under Section 129.

Other statements on which NACWA relies also are not relevant to whether EPA can regulate sewage sludge incinerators under Section 129. NACWA cites to a 2002 Federal Register notice in which EPA included sewage sludge incinerators on the list of area source categories listed under certain sections of Section 112. NACWA Br. 11-12 (citing 67 Fed. Reg. 43,112 (June 26, 2002)). Under Sections 112(c)(3), (c)(6) and (k)(3)(B), EPA must list source categories or subcategories accounting for at least ninety percent of the aggregate emission of certain hazardous air pollutants and promulgate emission standards for those categories or subcategories. 42 U.S.C. §§ 7412(c)(3), (6), (k)(3)(B). EPA then must promulgate regulations that establish emission standards applicable to these sources under Section 112(d)(2) or (d)(4), 42 U.S.C. § 7412(d)(2), (4). EPA has determined that Section 129 source categories can be included in the list of sources under Section 112 to meet these obligations.[9] 76 Fed. Reg. at 15,383. EPA therefore included

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[9] *See* 76 Fed. Reg. at 15,375 (noting that the emission standards in the SSI Rule are needed to fulfill EPA's obligations under Section 112(c)(3), (6), and (k)(3)(B)(ii); (con't)…

US EPA ARCHIVE DOCUMENT

sewage sludge incinerators in the list of sources under Section 112 because they can be used to satisfy EPA's obligations under that Section. *Id.* That does not mean, however, that sewage sludge incinerators must be regulated under Section 112. *Id.* For example, EPA also included in this Section 112 list other categories of solid waste incinerators that are specifically covered under Section 129, including medical waste incinerators, *see* 42 U.S.C. § 7429(a)(1)(C), and municipal waste incinerators, *see id.* § 7423(a)(1)(B), which EPA intended to regulate to fulfill its obligations under Section 112. Thus, the prior EPA statements to which NACWA refers do not bind EPA to regulate sewage sludge incinerators under Section 112 rather than Section 129. Under NACWA's theory, EPA's listing of medical waste and municipal waste incinerators under Section 112(c)(3) and (c)(6) would defeat Section 129(a)'s express requirement that EPA must regulate these sources under Section 129.

Finally, NACWA's argument that regulating sewage sludge incinerators under Section 129 will "usurp local control[,]" NACWA Br. 28, is irrelevant to the statutory construction issue and, in any event, is incorrect. NACWA seemingly

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see also 74 Fed. Reg. 51368, 51399 (Dec. 7, 2009) (explaining that Section 129 regulation for medical waste incinerators counts toward meeting EPA's Section 112(c)(6) obligation); 76 Fed. Reg. 15,308 (Mar. 21, 2011) (announcing EPA's completion of emission standards required by Section 112(c)(3), (6), (k)(3)(B)).

US EPA ARCHIVE DOCUMENT

argues that emission standards under Section 129 will make incineration too costly for many POTWs, thus forcing these facilities to resort to land application or landfilling and removing the municipality's choice in sludge treatment. *Id.* at 5. Based on the Agency's revised cost estimates, however, EPA determined that in many instances incineration is a less expensive option. *See* Revised Cost and Emission Reduction of the MACT Floor Level of Control at Section 3.3 and Tables 2, 3, and 7 (showing, *e.g.*, total annual MACT floor costs at less than $18 million and total annual cost for small entities to landfill at over $80.5 million) [JAXX, XX, XX, XX]. In addition:

> [t]he selection of a management option for sewage sludge is often a local decision that is based on environmental protection concerns, community needs, geographic constraints, and economic conditions. Given a full evaluation of these factors, for some sources, landfilling or land treatment may be a better management option than incineration.

76 Fed. Reg. at 15,395. It is these various factors – not whether EPA regulated sewage sludge incinerators under Section 112 or 129 – that determine POTWs' choice of sewage sludge treatment.

For these reasons, EPA's interpretation of Section 129 is permissible under *Chevron* step two.

2. EPA's interpretation is not precluded by the Clean Water Act.

NACWA further claims that EPA cannot regulate sewage sludge

US EPA ARCHIVE DOCUMENT

incinerators under Section 129 because doing so takes away local control and flexibility over the management of sewage sludge under CWA Section 405, 33 U.S.C. § 1345. NACWA Br. 27. CWA Section 405 directs EPA to issue regulations for the "disposal of sludge and the utilization of sludge for various purposes." 33 U.S.C. § 1345(d)(1). EPA has issued such regulations at 40 C.F.R. Part 503, which establish standards for "sewage sludge applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator." *Id.* § 503.1(a)(1). The requirements for sewage sludge incinerators in Part 503, Subpart E, require compliance with the CAA National Emission Standards for beryllium and mercury, and limit the allowable concentration of five inorganic pollutants (lead, arsenic, cadmium, chromium, and nickel). *Id.* § 503.43. Thus, through operation of the CWA's Part 503 regulations, sewage sludge incinerators are subject to air CAA emission standards for certain pollutants.

Despite NACWA's arguments, nothing in the CWA or the Part 503 regulations restricts EPA's regulation of sewage sludge incinerators to the Part 503 regulations. In fact, CWA Section 405 specifically states that it is not intended to waive more stringent requirements of the CWA or any other law. 33 U.S.C. § 1345(d)(5). Moreover, there are important distinctions between the Part 503 regulations and regulation under CAA Section 129, which show that EPA can regulate sewage sludge incinerators under both provisions.

US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

First and most notably, the emission limits incorporated into the Part 503 regulations are risk-based and, for the five inorganic pollutants, are designed to specifically monitor pollutants in the sludge itself, whereas the MACT standards in the SSI Rule are technology-based to monitor and reduce pollutants in air emissions from combustion of the sludge. 75 Fed. Reg. at 63,290. Second, the SSI Rule covers only three of the inorganic pollutants covered by the Part 503 regulations (lead, cadmium, and mercury), along with six other pollutants not covered by the Part 503 regulations: carbon monoxide, hydrogen chloride, nitrogen oxides, particulate matter, polycholorinated dibenzo-p-dioxins and polychlorinated dibenzofurans, and sulfur dioxide. *Id.* Thus, although the Part 503 regulations and CAA Section 129 overlap, they do not result in the regulation of the same universe of pollutants or the same type of technology controls. EPA therefore can reasonably regulate sewage sludge incinerators under both the Part 503 regulations and Section 129 and a regulated entity can comply with both sets of standards.[10]

The CWA does not cast doubt on EPA's required regulation of sewage sludge incinerators under CAA Section 129, particularly where CWA Section 405

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[10] EPA intends to reevaluate the Part 503 requirements to determine what, if any, changes should be made in light of the SSI Rule. Summary of Public Comments and Responses ("Response to Comments") at 22-1 [JAXX].

allows the application of other more stringent standards under any other federal law.

II. THE RECORD SUPPORTS EPA'S TECHNICAL DETERMINATION TO ESTABLISH ONLY TWO SUBCATEGORIES OF SEWAGE SLUDGE INCINERATORS.

Under Section 129, EPA has broad discretion to "distinguish among classes, types . . . and sizes of units within a category in establishing such standards." 42 U.S.C. § 7429(a)(2). Here, the record supported only two subcategories: fluidized bed and multiple hearth units. NACWA claims that EPA should have created additional subcategories for, *inter alia*, back-up sewage sludge incinerators that operate only a small fraction of the time, or for POTWs that are too small to expand to add on pollution controls. NACWA Br. 43-44.[11] EPA adequately responded to comments on whether additional subcategories should be included and reasonably determined that only two subcategories were supported by the record.

Based on identical language in Section 112(d), 42 U.S.C. § 7412(d), this Court has determined that EPA has broad discretion to decide whether or not subcategories within a source category are warranted based on the class, type, or

[11] MaxWest's arguments regarding a subcategory for gasifiers are discussed *infra* Section VI.

US EPA ARCHIVE DOCUMENT

size. *See Davis County*, 101 F.3d at 1405 n.11 (addressing identical subcategorization authority under Section 112(d)). Section 129(a)(2), 42 U.S.C. § 7429(a)(2), states that EPA "may" distinguish among sources based on class, type, or size, but does not require EPA to do so whenever there are any differences whatsoever among sources within a category. EPA's exercise of this discretion "involves an expert determination," and petitioners bear a "heavy burden to overcome deference" to the Agency's reasonable rationale. *NRDC v. EPA*, 489 F.3d 1364, 1375 (D.C. Cir. 2007) ("*NRDC II*") (rejecting challenge to EPA's failure to establish subcategory within plywood source category under identical language in Section 112).

EPA stated in the proposed rule that it had knowledge at that time of only two types of incinerators being used to combust sewage sludge: fluidized bed and multiple hearth units. 75 Fed. Reg. at 63,268. EPA proposed these two subcategories based largely on information provided by NACWA about unit type, including an inventory of units, unit designs, and characteristics to determine the subcategories. *See. e.g.*, Sewage Sludge Incineration Meeting Between USEPA and NACWA, Aug. 25, 2009 [JAXX]. As EPA explained, this same type of information would be needed to evaluate whether additional subcategories were warranted. 75 Fed. Reg. at 63,268. EPA specifically requested information on whether additional subcategories exist and, "if so, what the content of the

US EPA ARCHIVE DOCUMENT

combusted materials is (i.e., constituents in the sewage sludge), the amount of sewage sludge incinerated, and whether these units should be subject to SSI standards or subject to other section 129 standards." *Id.*

Although NACWA's comments recommended that EPA establish subcategories for limited use units and for units at facilities with space constraints, NACWA did not provide the information that EPA requested for any specific facilities with which it was concerned. *See* Comments of the National Association of Clean Water Agencies ("NACWA Comments") at 31-33 [JAXX]. NACWA states that it "identified back-up and emergency SSIs as unique from other SSIs based on their frequent idle time, low emissions, and high ratio of startup/shutdown to steady-state operations" and that these sewage sludge incinerators cannot meet the SSI Rule's testing obligations. NACWA Br. 44 (citing NACWA Comments at 32). None of these comments, however, identified any particular units or described the amount of material combusted, as EPA had requested. For example, NACWA recommended that EPA create a separate subcategory for units more than 65 miles from a landfill, based on its unsupported claim that stringent MACT standards for such units would "force an environmental detriment" by "forc[ing] sewage sludge to be transported" to landfills that are more than 65 miles away instead of being incinerated. NACWA Comments at 33 [JAXX]. NACWA, however, did not identify any specific incinerators that it

US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

believed would actually cease operation if required to comply with EPA's proposed MACT standards, the sewage sludge constituents of such units, or the amount of sludge incinerated. Additionally, NACWA provided no emissions information on the units it claimed should be included in additional subcategories. Because there was no information on which to support the establishment of additional subcategories, EPA reasonably decided to establish only the two subcategories. *See* Response to Comments at 6-1 [JAXX].

Moreover, NACWA's demand for further subcategories of sewage sludge incinerators is based largely on concerns about cost of compliance for certain facilities. *See* NACWA Comments at 32 [JAXX] (claiming that cost of compliance for limited use units is not justified given units' emissions levels); *id*. at 33 [JAXX] (claiming that units more than 65 miles from landfill may shut down rather than comply with MACT standards). As this Court has held, however, EPA's rejection of a separate subcategory based on cost concerns (under the identical language in Section 112) is reasonable and consistent with its broad discretion. *NRDC II*, 489 F.3d at 1375.

III. EPA'S MACT FLOOR DETERMINATION WAS REASONABLE.

CAA Section 129 requires that the MACT standard for new sources be no less stringent than the emissions control achieved in practice by the best-controlled similar unit. 42 U.S.C. § 7429(a)(2). For existing sources, the MACT standard

can be no less stringent than the average emission limitation achieved by the best performing twelve percent of units in a source category. *Id.* As this Court noted in *Sierra Club v. EPA*, Section 129 "says nothing about how the performance of the best units is to be calculated," and does not "exclude estimation, either by sampling or by some other reliable means." 167 F.3d 658, 661-62 (D.C. Cir. 1999). Thus, as long as EPA's approach for estimating the performance of the top twelve percent of existing units bears a "rational relationship to the reality it purports to represent," EPA's methodology will be upheld. *Id.* at 662 (citing *Columbia Falls Aluminum Co. v. EPA*, 139 F.3d 914, 923 (D.C. Cir. 1998)); *see also Med. Waste Inst. & Energy Recovery Council v. EPA*, 645 F.3d 420, 425 (D.C. Cir. 2011) (recognizing that it would be acceptable for EPA to use regulatory data to set MACT floors "as long as it allows a reasonable inference as to the performance of the top 12 percent of units."). In addition, "EPA typically has wide latitude in determining the extent of data-gathering necessary to solve a problem" and the Court "generally defer[s] to an agency's decision to proceed on the basis of imperfect scientific information, rather than to invest the resources to conduct the perfect study." *Sierra Club*, 167 F.3d at 662 (citation and internal quotation marks omitted).

Here, EPA's statistical methodology to determine the MACT floors is permissible because it allowed a "reasonable inference," based on actual data, "as

US EPA ARCHIVE DOCUMENT

to the performance of the top 12 percent of units." *Id*. at 663. EPA also explained "*why* its methodology yields the required estimate." *Cement Kiln Recycling Coal. v. EPA*, 255 F.3d 855, 862 (D.C. Cir. 2001) ("*CKRC*"); *see* Revised MACT Floor Analysis at 6-10 [JAXX-XX].

A. Consistent With This Court's Precedent And CAA Section 129, EPA Reasonably Used A Statistical Methodology To Estimate The Best Performing 12 Percent Of Existing Units To Determine The MACT Floor.

EPA's use of a statistical methodology to determine the MACT floors for existing units is challenged by both NACWA and Sierra Club.[12] First, both Petitioners incorrectly assert that EPA cannot set MACT floors unless it has actual emissions test data for at least twelve percent of the SSI units. *See* NACWA Br. 32-37; Proof Brief for Petitioner Sierra Club ("Sierra Club Br.") 20, 28. This Court expressly rejected a similar argument in *Sierra Club v. EPA*, stating "Sierra Club says that using regulatory data is impossible because such data exists for fewer than 12 percent of units. But if the regulatory data provide a good proxy for

[12] Neither Petitioner challenges EPA's methodology itself. Rather, the challenges are aimed at whether CAA Section 129 allows the use of such a methodology in the first place in the absence of emissions test data for the best-performing twelve percent of sources in each subcategory, and whether the data used in the methodology were sufficient to determine the average emissions performance for such best-performing sources. NACWA also does not challenge EPA's use of the methodology for determining the MACT floor for new units.

US EPA ARCHIVE DOCUMENT

the performance of the units they do cover, then it is irrelevant that the coverage is incomplete." 167 F.3d at 662. What matters is whether the data used by EPA reasonably estimate the emissions of the best performing units. *Nat'l Lime Ass'n v. EPA*, 233 F.3d 625, 632 (D.C. Cir. 2000) ("*Nat'l Lime II*"); *CKRC*, 255 F.3d at 867. For the SSI Rule, EPA demonstrated how and why the data it relied upon reasonably estimate the emissions of the best performing units.

There are 204 sewage sludge incinerators in operation, and of those, 144 are multiple hearth units and 60 are fluidized bed units. *See* Revised MACT Floor Analysis at 3 [JAXX]. Thus, twelve percent of each of those units (rounding up to the nearest whole number) is 18 multiple hearth units and 8 fluidized bed units. *Id.* at 6 [JAXX]. EPA obtained actual data, in the form of emission tests, for 20 multiple hearth units and 6 fluidized bed units, but not all of these units had data for every pollutant. *Id.*

EPA obtained data for more than twelve percent of units with respect to mercury and particulate matter for existing multiple hearth units and those standards therefore are not at issue. 75 Fed. Reg. at 15,387; Revised MACT Floor Analysis at 7 [JAXX]; 76 Fed. Reg. at 15,387. For those pollutants where EPA did not have data for at least twelve percent of existing units, EPA used a statistical methodology to calculate the minimum number of observations (*i.e.*, actual data) that would be needed to estimate the performance of the best twelve percent of

US EPA ARCHIVE DOCUMENT

units. Revised MACT Floor Analysis at 8-9 and Table 4-2 [JAXX, XX]. EPA's analysis showed that even though EPA did not have actual data from the best twelve percent of units, the data that the Agency did have met or exceeded the minimum number of observations (or minimum amount of actual data) necessary to provide an accurate representation of what the data from the best performing twelve percent of units would have been. 76 Fed. Reg. at 15,387; Revised MACT Floor Analysis at 9 [JAXX].

NACWA disputes EPA's ability to use this statistical methodology and provides tables to compare the number of facilities from which EPA had actual data with the number of facilities from which NACWA claims EPA should have collected data. NACWA Br. 33-34 (asserting that EPA based "16 of the 18 MACT floors . . . on as little as 3.4% (5 of the 144 [multiple hearth units]) and no more than 10% (6 of the 60 [fluidized bed units]) of the SSIs in a category"). NACWA's comparison, however, ignores that this Court already determined that EPA need not have *actual* emissions test results for twelve percent of units in each subcategory. *Sierra Club*, 167 F.3d at 662. Indeed, EPA can use a statistical methodology (as it did here) to ensure that the data EPA actually collected represents the average emissions performance of the best performing twelve percent of units. The methodology EPA used here also accounts for various relevant factors to ensure that the minimum number of observations necessary to

US EPA ARCHIVE DOCUMENT

make that determination is not an arbitrary number. *See* Revised MACT Floor Analysis at 8-9 [JAXX]. The fact that EPA's collected data equaled or exceeded the minimum number of observations that is needed under the methodology to represent the emissions performance of the best performing units ensures that the MACT floor calculations are what they would have been if EPA had a complete dataset from the best performing twelve percent of units.

NACWA also compares the different MACT floor language in CAA Sections 129(a)(2) and 112(d)(3), claiming that the difference in language shows that EPA cannot use a statistical methodology under Section 129 to estimate the emission levels achieved by the best performing twelve percent of units. NACWA Br. 35. Section 112(d)(3) requires the MACT floor to reflect the average emissions limitation achieved by the best performing twelve percent of sources "for which the Administrator has emissions information." 42 U.S.C § 7412(d)(3)(A). Section 129 does not contain this qualifier and, thus, NACWA argues that under Section 129, EPA cannot set floors using actual data from less than twelve percent of units. NACWA Br. 35.

It is true as a general matter that "[w]here Congress includes particular language in one section of statute but omits it in another . . . it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion." *Id.* (quoting *Keene Corp. v. United States*, 508 U.S. 200, 208

US EPA ARCHIVE DOCUMENT

(1993)). The exclusion from Section 129(a)(2) of the language "for which the Administrator has emissions information," however, does not mean that EPA can *only* establish MACT floors when it has actual emissions test data reflecting at least twelve percent of the best performing units. This Court has recognized that Sections 112 and 129 establish "virtually identical" emission requirements, and that the textual difference between Sections 112 and 129 "says nothing about what data the Agency should use to calculate emissions standards." *Nat'l Lime II*, 233 F.3d at 631-32. Indeed, Section 129 is silent on how EPA is to determine the best performing twelve percent of units in a category, and permits EPA to use a reasonable estimate of the performance of these units. *Sierra Club*, 167 F.3d at 661-62. Nothing in Section 129 "exclude[s] estimation, either by sampling or by some other reliable means." *Id.*[13]

Under Section 112, EPA often issues MACT floor standards that are based on the emissions performance of less than the top twelve percent of sources in the source category because the Agency may only have data for a small percentage of sources in the category. In those situations, under Section 112(d)(3), EPA bases

[13] NACWA's arguments that EPA "has the primary obligation to gather the data to comply with § 129(a)(2), not the public," and that EPA could have initiated its information collection efforts sooner, have no bearing on the statutory construction issue of whether Section 129 dictates how EPA is supposed to determine the best performing twelve percent of units. *See* NACWA Br. 37.

US EPA ARCHIVE DOCUMENT

the MACT floor standards on the emission performance of the best performing twelve percent of sources for which EPA actually has information. Because Section 129, however, directs EPA to base the MACT floors on the average emissions performance of the best performing twelve percent of units, reasonable estimation of that emissions performance is particularly appropriate in the absence of actual emissions test data for such units.

Sierra Club does not dispute that EPA can use a statistical methodology to estimate the performance of the best performing twelve percent of units; rather, it claims that EPA's selection of best performing units is unreasonable because EPA did not obtain emissions data from *all* SSI units operating more than one of the technologies recognized by EPA. *See* Sierra Club Br. 21. That argument, however, in no way renders unreliable the emissions data EPA did collect. EPA need not "invest [in] the resources to conduct the perfect study" before taking action. *Am. Iron & Steel Inst. v. EPA*, 115 F.3d 979, 1004 (D.C. Cir. 1997). For this reason, Sierra Club's assertion that Hatfield Township and Cobb County have installed the same controls as facilities from which EPA obtained emissions data is meaningless. Sierra Club Br. 21-22. Sierra Club points to no emissions data from Hatfield Township, Cobb County, or any other SSI, that demonstrates that EPA's dataset is not representative of the best performing units.

US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

B. EPA Reasonably Accounted For Variability To Set MACT Floors At Levels The Best Performing Sources Could Achieve.

NACWA and Sierra Club also both attack how EPA accounted for variability among emissions in calculating the MACT floors. EPA, however, deserves deference in how it accounted for variability. *See Environmental Defense v. EPA*, 489 F.3d 1320, 1333 (D.C. Cir. 2007);

1. NACWA's challenge to EPA's methodology to account for variability should be rejected.

In setting MACT floors, EPA may consider emission variability to estimate the performance achieved by the best performing sources and may set the floor at a level that the best performing sources can expect to meet "every day and under all operating conditions." *Mossville Envtl. Action Now v. EPA*, 370 F.3d 1232, 1241-42 (D.C. Cir. 2004); *see Sierra Club v. EPA* ("*Brick MACT*"), 479 F.3d 875, 881-82 (D.C. Cir. 2007). This Court has recognized EPA's authority to account for variability in setting MACT floors to reflect the fact that even the performance of the best units will not always be the same. *CKRC*, 255 F.3d at 863 (citing *Sierra Club*, 167 F.3d at 665).

Here, to determine facilities that represented the best performers, EPA collected emissions data from nine different facilities in nine different states across the country, and emissions data from state environmental databases. 76 Fed. Reg. at 15,391. The facilities represented residential and commercial populations as

well as varying winter and early spring climates – the seasons during which the majority of the air emissions testing were conducted. *Id.*

NACWA takes issue with EPA's use of these facilities and consideration of variability, claiming that the units were not a "representative cross section of geographies and climates" and that the databases often represent "only one single test from the winter of 2010." NACWA Br. 40; *see id.* 38. For example, NACWA states that the MACT floors for fluidized bed units were derived using data from only three or four sewage sludge incinerators in only four states, and that, for this reason, EPA failed to adequately assess variability among the best performers. *Id.* EPA's variability determination, however, was more complicated than NACWA would have this Court believe.

MACT-based standards typically are "derived from short-term emissions test data[.]" Revised MACT Floor Analysis at 4 [JAXX]. These data, however, are not representative of the range of operating conditions that the best-performing facilities face on a day-to-day basis." *Id.* "EPA, therefore, often needs to adjust these short-term data to account for these varying conditions." *Id.* The varying conditions with which EPA is concerned are variations between tests at the same unit, and variations between the separate test runs that comprise a single test at a unit. *Id.* at 4-5 [JAXX-XX]. "A single test at a unit usually includes at least three separate test runs." *Id.* at 5 [JAXX]. "Between-test variability" can be caused by

US EPA ARCHIVE DOCUMENT

different settings for testing equipment, different people performing the tests, or different laboratories analyzing the results. *Id.* These same differences can lead to variations in results from different runs comprising the same test, which is known as "within-test variability," *i.e.*, variability among the three separate test runs. *Id.* Each separate test run is a snapshot of actual performance that gives information about the "normal, and unavoidable, variation in emissions that would expect to occur over time." *Id.*

To analyze these variations here, EPA used a statistical methodology called the Upper Prediction Limit ("UPL") – a statistical formula that EPA applied to a single test at a unit (which consisted of three separate test runs) for a particular pollutant to provide an appropriate margin of variability in the best performing source's operations. *See* Revised MACT Floor Analysis at 5 [JAXX] (explaining the UPL analysis). Using the three-run test data from the best performing source in the record, EPA applied the UPL to estimate a level of emission control that future three-run test averages from that source would achieve a certain percent of the time. *See* 75 Fed. Reg. at 63,269. Revised MACT Floor Analysis at 5 [JAXX]. Here, EPA applied a 99 percent confidence level UPL, meaning that the MACT floor limit was calculated so that if a source has average emissions that are equal to the three-run test average achieved by the best performer, the source would be expected to meet the limit 99 percent of the time. *See* 76 Fed. Reg. at 15,389; *see*

US EPA ARCHIVE DOCUMENT

also Revised MACT Floor Analysis at 5 [JAXX] ("[S]hould a future test condition be selected randomly from any of these sources (i.e., average of three runs), we can be 99 percent confident that the reported level will fall below a MACT floor emission limit calculated using a UPL."). This analysis is designed to estimate a MACT floor level that is achieved with some level of confidence.

By applying this methodology, EPA reasonably accounted for the best performing sources' variability. This choice of statistical methodology to account for variability in setting the MACT floors should be afforded a high level of deference. *Environmental Defense*, 489 F.3d at 1333; *see Kennecott v. EPA*, 780 F.2d 445, 450-51 (4th Cir. 1985) (upholding technology-based standards where long-term limits were derived from short term data by application of statistical procedures). NACWA's overly simplistic criticism of how EPA accounted for variability using the UPL is insufficient to overcome that deference.

NACWA further claims that EPA should have used metals concentration data from sludge feed at POTWs that is collected under the CWA Part 503 regulations and that EPA refused to other consider stack test data that was submitted. NACWA Br. 41-42. First, the stack test data on which NACWA relies was in the form of summary tables and did not contain actual test information. Therefore, EPA was unable to evaluate whether the data was collected using

US EPA ARCHIVE DOCUMENT

appropriate test methods and quality assurance procedures. Response to Comments at 10-17 [JAXX].

Second, NACWA fails to explain how the alleged variations in the metals content in sludge affects the emissions performance of the best performing units. Rather, NACWA simply points to data submitted under the CWA Part 503 regulations without demonstrating whether and how the pollutant content of the sludge affects emissions. *Id.* The MACT floor standards must be based on the *emissions* performance of the best performing sources. *See* NACWA Petition Denial at 5-6 [JAXX-XX]. EPA's use of the UPL to account for variability also addressed any emissions variability due to differences in sludge content. *See* 76 Fed. Reg. at 15,388-92. Moreover, the air pollution control devices generally used by the best performing sewage sludge incinerators result in significant pollutant reductions between the incoming sludge feed and outgoing emissions. Consequently, any differences in pollutant concentrations in the sludge feed should have minimal impact on emissions because the pollutants contained in the sludge feed itself are removed by air pollution control devices. If NACWA's approach was accepted, it would account for variability in sludge content on top of the variability in emission levels that are already accounted for through the UPL. This approach is not justified, particularly given the lack of any information showing

US EPA ARCHIVE DOCUMENT

whether and how that sludge content affects emissions. *See* NACWA Petition Denial at 6 [JAXX].

None of NACWA's arguments show that EPA's choice of the best performers and method for accounting for variability was unreasonable. NACWA has failed to demonstrate why data from more units across more states during different times of the year would have led to a better determination of the best performers, why the representative data that EPA did collect prevented EPA from reasonably determining the best performers, or how consideration of CWA Part 503 data or stack test data would have changed the results. EPA therefore is entitled to deference on how it accounted for variability.

2. Sierra Club's claims that EPA did not reasonably account for variability should be rejected.

Sierra Club's claim, that EPA has not demonstrated how the UPL allows EPA to estimate the average emission levels of the best performing sources, is meritless. Sierra Club Br. 26. As described above, EPA did not simply "pick a number," as asserted by Sierra Club. *Id.* Instead, EPA provided a detailed analysis of the emissions data used to set the MACT floors.[14] *See* Revised MACT Floor

[14] Sierra Club claims that EPA's MACT floor limits calculated using the UPL do not reflect the "average" emission level of the best performing sources, but rather is only "based on the average." Sierra Club Br. 26. This is a semantic distinction (con't)…

US EPA ARCHIVE DOCUMENT

Analysis at 4-17 [JAXX-XX]. EPA organized the units and data into their respective subcategories, averaged the test runs, ranked the units by performance, and then applied the UPL to account for variability. *Id.* Sierra Club's contention – that the individual multiple hearth units with the lowest emissions of hydrogen chloride and sulfur dioxide are achieving worse emission levels than the average emission level achieved by the top twelve percent of units, and that this shows that EPA's use of the Upper Prediction Limit is arbitrary and capricious – is inaccurate and misplaced. Sierra Club Br. 25-28. As discussed below, in setting *new source* standards for multiple hearth units for hydrogen chloride and sulfur dioxide based on the emissions of the best performing unit, EPA was working with a smaller data set with greater variation in the data. Revised MACT Floor Analysis Attachs. A-D [JAXX-XX]. The available data for the individual multiple hearth units with the lowest average emissions of hydrogen chloride and sulfur dioxide had variation in the emissions data such that the MACT floor for new multiple hearths (for those pollutants) would have been greater than the MACT floor for existing sources (for those two pollutants). Revised MACT Floor Analysis at 19, Tables 5-1 and 5-2,

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without a difference. EPA's MACT floor limits do in fact represent the average emissions level of the best performing sources, and, as explained above, the UPL calculation is used to account for variability in emissions performance among the best performers.

US EPA ARCHIVE DOCUMENT

n.3 [JAXX, XX, XX, XX]. Because Section 129 directs EPA to set MACT floors for new sources at a level no less stringent than floors for existing sources, *see* 42 U.S.C. § 7429(a)(2), EPA set the MACT floor for hydrogen chloride and sulfur dioxide for new source multiple hearth units at the same level as existing sources. This in no way renders EPA's scientific methodology for assessing the performance of the top twelve percent of existing sources arbitrary or capricious. Sierra Club has pointed to no information that demonstrates that EPA's methodology for addressing variability in setting MACT floors does not reasonably estimate the emissions of the best performers.[15]

Therefore, EPA's use of the 99 percent confidence level UPL adequately accounts for variability in the operations of the best performing sources.

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[15] Sierra Club also claims that because EPA ranked best performers based on the single lowest three-run test average, it should only have applied the UPL analysis to the single lowest test run. Sierra Club Br. 8-9. Doing so, however, would ignore demonstrated variability in emissions performance at the single best performer (for new sources) and the set of best performers (for existing sources), and could result in a MACT floor standard that does not adequately account for variability. Multiple test runs reflect normal operating conditions of the best performers. If EPA applied the UPL only to the single lowest three-run test average, the MACT floor would not represent the level of performance at various times.

US EPA ARCHIVE DOCUMENT

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C. EPA Appropriately Considered Non-Technology Factors In Estimating The Performance Of The Best Performing SSI Units.

In *Cement Kiln Recycling Coalition*, this Court held, "[t]o be sure, it is not our place to dictate to the Agency how to account for variables other than MACT control. If . . . the Agency can demonstrate with substantial evidence . . . that MACT technology significantly controls emissions, or that factors other than the control have a negligible effect, the MACT approach could be a reasonable means of satisfying the statute's requirements." *CKRC*, 255 F.3d at 866 (*citing Nat'l Lime II*, 233 F.3d at 633); *cf. Brick MACT*, 479 F.3d at 882-83. Sierra Club contends that EPA estimated the performance of the best performing SSI units based solely on the control technology they use. Sierra Club Br. 18-19. Sierra Club's contention is not supported by the record.

EPA used a rational approach to collecting and analyzing emissions data in the face of a court-ordered deadline.[16] *See Sierra Club*, 167 F.3d at 662 ("EPA

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[16] EPA issued the SSI Rule to comply with an order issued by the District Court for the District of Columbia in *Sierra Club v. Jackson*, Case No. 1:01-cv-1537 (PLF), to satisfy EPA's obligations under CAA Sections 112(c)(3), (k)(3)(B), and (c)(6). As explained *supra* n.9, EPA's regulations under Section 129 serve towards meeting those Section 112 obligations. An earlier order by the district court in that case required such regulations to be promulgated by January 21, 2011. On December 7, 2010, EPA requested that the court extend that deadline to April 15, 2013, to allow EPA additional time to complete final action on several regulations required by the court's order, including the SSI Rule. Sierra Club opposed EPA's (con't)…

typically has wide latitude in determining the extent of data-gathering necessary to solve a problem.”). Because EPA had limited emissions data from the 204 SSI units in operation at the time the Agency was preparing to propose MACT standards for sewage sludge incinerators, EPA sent information collection requests to nine municipalities operating such units. 75 Fed. Reg. at 63,270; Revised MACT Floor Analysis at 6-7 [JAXX-XX]. EPA selected the municipalities based on the type of sewage sludge incineration unit operated and the installed air pollution controls. *Id.* EPA specifically sought emissions data from those municipalities that have installed and operate more than one of the controls that EPA identified as achieving the most reductions possible for the Section 129 pollutants. 75 Fed. Reg. at 63,270; Revised MACT Floor Analysis at 6 (listing and describing various control technologies) [JAXX]. The selected municipalities are located in different states and regions across the country. *See* Revised MACT Floor Analysis Attach. G [JAXX].

In addition, EPA sought and collected information from state environmental agencies’ public databases. 76 Fed. Reg. at 15,387; Revised MACT Floor Analysis at 7 [JAXX]. This information included emissions test data from

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request, and on January 20, 2011, the district court denied EPA’s motion for an extension, allowing EPA only an additional 30 days (until February 21, 2011) to issue the required regulations, including the SSI rule.

US EPA ARCHIVE DOCUMENT

facilities/units that met the same criteria EPA used in issuing information collection requests, *i.e.*, units with more than one of the controls that EPA identified as achieving the most reductions possible for the Section 129 pollutants. *See* Final Inventory and Emissions Database [JAXX-XX] (identifying emissions data, units from which data was submitted, and control devices at each unit). With the exception of the data greater than 15 years of age,[17] and three specific test reports that appeared irregular,[18] EPA utilized *all* other emissions data where the Agency could verify the accuracy of the data. 76 Fed. Reg. at 15,387.

Consistent with this Court's decisions in *CKRC*, *National Lime II*, and *Sierra Club (Brick MACT)*, EPA also considered whether variables other than control technology significantly influence which sources are best performing.

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[17] EPA reached this conclusion based on the age of the data and the fact that they pre-dated required compliance with the CWA Part 503 requirements. 40 C.F.R. § 503.2. Part 503 establishes daily average concentration limits for lead, cadmium, and other metals in sewage sludge that is disposed of by incineration, and requires that sewage sludge incinerators meet the National Emission Standards for beryllium and mercury in 40 C.F.R. Part 61, Subparts C and E. Emissions from sewage sludge incinerators undoubtedly were higher before compliance with the CWA standards was required.

[18] Where emission test results were three standard deviations from the mean, those results were reviewed to determine if there were any irregularities during the operation of the sewage sludge incinerator or during testing and analysis. In the Revised MACT Floor Analysis, EPA described three specific test results that were removed from the floor calculations because they were greater than three standard deviations from the other tests. Revised MACT Floor Analysis at 9 [JAXX].

US EPA ARCHIVE DOCUMENT

While acknowledging that there is *some* variation in the amount of Section 129 pollutants present in the waste that is burned at individual sewage sludge incinerators, EPA noted that not only do sewage sludge incinerators receive a more homogeneous type of waste to burn than most other solid waste incineration units (i.e., only sewage sludge), but sewage sludge incinerators also must comply with the discharge and emission requirements of the CWA Part 503 regulations.

As discussed above, Part 503 establishes daily average concentration limits for lead, cadmium, and other metals in sewage sludge that is disposed of by incineration, and requires that sewage sludge incinerators meet the National Emission Standards for beryllium and mercury set forth in 40 C.F.R. part 61, subparts C and E. 75 Fed. Reg. at 63,270; Revised MACT Floor Analysis at 6 [JAXX]. As a result of controls installed to meet these requirements, variations in sludge content have little impact on the emissions performance of the best performing units. Also, pursuant to the Part 503 standards, facilities already incorporate management practices and measures to reduce waste and limit the concentration of pollutants in the sludge sent to sewage sludge incinerators, such as segregating contaminated and uncontaminated wastes and establishing discharge limits or pre-treatment standards for non-domestic users discharging wastewater to publicly owned treatment works. Revised MACT Floor Analysis at 6-7 [JAXX-XX]; *see also* Response to Comments at 12-13 to 12-14 [JAXX-XX] (comments

US EPA ARCHIVE DOCUMENT

referencing waste management plans required under the CWA). EPA thus concluded that non-technology measures to reduce emissions are already reflected by the data used to develop the MACT floors, and no commenter provided data or information to refute that conclusion. Revised MACT Floor Analysis at 7-8 [JAXX-XX].

Sierra Club points to comments from the City of Palo Alto that mercury emissions at its units have declined since the city introduced a program to reduce mercury inputs. Sierra Club Br. 20-21. However, even if true, such comments do not demonstrate that Palo Alto's program is unique among sewage sludge incinerators in this respect. Furthermore, the Palo Alto comments relied upon by Sierra Club only summarized emissions from the sewage sludge incinerator. *See* Comments of City of Palo Alto ("Palo Alto Comments") at 2-5 [JAXX-XX]. In the proposed rule, EPA specifically requested that commenters "provide additional emission stack test data and supporting documentation" so that EPA could base final MACT standards on a more complete data set. 75 Fed. Reg. at 63,270. EPA received some summary information from sewage sludge incinerator operators, but no emissions data or supporting documentation that could be verified. 76 Fed. Reg. at 15,387. Palo Alto did not submit any actual test data or supporting documents in response to the proposed rule. *See* 75 Fed. Reg. at 63,270 (requesting data and supporting documentation). Without such information, EPA

US EPA ARCHIVE DOCUMENT

could not confirm the accuracy and utility of the emissions numbers in the summary provided by Palo Alto. Thus, Palo Alto's asserted emissions levels and any correlation between a change in management practices and a reduction in mercury emissions could not be verified or used by EPA in the MACT floor calculation, *see* 76 Fed. Reg. at 15,387, and Sierra Club's reliance on the comments is misplaced.[19]

D. EPA Reasonably Incorporated Non-Detect Data Into The MACT Floor Calculation.

Sierra Club incorrectly asserts that EPA made a "policy decision" to set floors at three times the representative method detection level, and argues that this violates the unambiguous requirement of Section 129(a)(2) that floors reflect the emission levels actually achieved. Sierra Club Br. 30-31. As an initial matter, Sierra Club's argument is presented in such a conclusory manner the Court should decline to consider the challenge. *Sierra Club*, 167 F.3d at 666 (citing *Texas Rural Legal Aid, Inc. v. Legal Servs. Corp.*, 940 F.2d 685, 697 (D.C. Cir. 1991)). Sierra Club simply claims that EPA's approach is "unlawful" and "unreasonable under

[19] Sierra Club's reference to emissions levels at the Palo Alto sewage sludge incinerators is based only on the summary information submitted by Palo Alto in comments that argued against beyond-the-floor MACT standards, which does not include any actual emissions data or information as to how the testing was performed. *See* Palo Alto Comments at 2-5 [JAXX-XX].

US EPA ARCHIVE DOCUMENT

Chevron step two," without any explanation to support these conclusory statements. Sierra Club Br. 30-31.

What EPA's Revised MACT Floor Analysis makes clear is that EPA applied a *scientific* rather than a policy approach to addressing emission data below detection levels. Revised MACT Floor Analysis at 14-15 [JAXX]. EPA recognized that non-detect values accounted for more than half of the emission data for hydrogen chloride from fluidized bed units and polychlorinated dibenzo-P-dioxins and polychlorinated dibenzo furans from both multiple hearth and fluidized bed units. *Id.* at 14 [JAXX]. EPA further recognized that at very low emission levels where emission tests result in non-detect values, the inherent imprecision in the pollutant measurement can influence the reliability of the data. *Id.* Sierra Club in no way disputes either finding by EPA.

Further, EPA did not simply set floors at three times the representative method detection level.[20] To ensure reliability of the data and account for measurement variability, EPA applied a systematic approach to identify method detection limits reported by the best performers to determine a representative

[20] The measurement detection level is the minimum concentration of a pollutant that can be measured with confidence that the level is greater than zero. The representative method detection level identifies the level at which a pool of laboratories is capable of analyzing the measurement detection level.

US EPA ARCHIVE DOCUMENT

detection level. *Id.* In order to reduce measurement imprecision to a reasonable level of ten to fifteen percent, EPA calculated the value equal to three times the representative detection level. Revised MACT Floor Analysis at 14 [JAXX]. EPA then compared this value to the calculated floor to ensure that the limit accounts for measurement variability and imprecision. *Id.; see also* 75 Fed. Reg. at 63,272-73. Where the value equal to three times the representative method detection level was less than the calculated floor, EPA concluded that the calculated floor emission limit adequately accounted for measurement variability. Where the value equal to three times the representative method detection level was greater than the calculated floor, EPA concluded that the measurement variability was not adequately addressed and adjusted the floor level accordingly. Revised MACT Floor Analysis at 14 [JAXX].; *see also* 75 Fed. Reg. at 63,272-73. Thus, EPA's approach accounts for measurement and analytical variability while representing the data that constitutes the dataset.

EPA's scientific approach to addressing non-detect levels for specific Section 129 pollutants therefore is reasonable. *See NRDC v. EPA*, 529 F.3d 1077, 1086 (D.C. Cir. 2008) ("the sole question . . . is whether EPA has acted reasonably, not whether it has acted flawlessly").

US EPA ARCHIVE DOCUMENT

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E. EPA's Decision To Set New Unit Floors At The Existing Source Floors Was Rational.

Sierra Club argues that EPA has not shown that hydrogen chloride and sulfur dioxide floors for new multiple hearth units reflect the emission levels achieved by the relevant best units. Sierra Club Br. 31-34. To the contrary, EPA's floor analysis demonstrates that the Agency applied the Upper Prediction Limit statistical approach to account for the variability in a limited, though adequate, dataset.

For two pollutants – hydrogen chloride and sulfur dioxide – EPA set new source floors for new multiple hearth units at the same level as the existing source floors. 76 Fed. Reg. at 15,388. This was due to the significant variability associated with the limited dataset in the record for the best performing source for these two pollutants. EPA's application of the UPL to address variability in a small dataset for the best performing units resulted in new source floors that were higher than the existing source floors. *Id.* at 15,389 (Table 8 footnote). Setting these two floors for new multiple hearth units at the same level as the existing source floors is consistent with the statutory requirement that precludes setting new source limits that are less stringent than existing source limits, and therefore is a reasonable approach. 42 U.S.C. § 7429(a)(2) ("The degree of reduction in emission limits that is deemed achievable for new units in a category shall not be

less stringent than the emissions control that is achieved in practice by the best controlled similar unit, as determined by the Administrator.”).

As discussed above, the UPL is a statistical measure designed to ensure that sources—even the “best” sources—actually can meet the selected standard under a range of typical, variable operating conditions. Under the specific approach used here, EPA’s goal was to derive a standard that could be met by the best performers 99 percent of the time. The degree of the statistical adjustment reflected in the UPL depends on the limitations of the underlying data. In general, less of a statistical adjustment is needed where there is a relatively large amount of emissions data and/or where the emissions data reflect fairly consistent emissions levels. This was the case for most of the pollutants for which EPA set a new source standard, and Sierra Club conspicuously does not mention the standards for those pollutants. Instead, Sierra Club focuses entirely on the standards for two pollutants—hydrogen chloride and sulfur dioxide—for which a relatively larger statistical adjustment was needed in light of the limitations (*i.e.*, smaller dataset and greater inconsistency among emission levels) in the underlying data. *See* Revised MACT Floor Analysis, Attachs. A-D [JAXX-XX] (data for hydrogen chloride and sulfur dioxide).

In addition, EPA correctly denied Sierra Club’s petition for reconsideration on this issue, where Sierra Club commented on EPA’s application of the 99-

US EPA ARCHIVE DOCUMENT

percentile UPL method with respect to existing sources, but not with respect to new sources. *See* Sierra Club Petition Denial at 3-4 [JAXX-XX]; Comments of Earthjustice, Sierra Club, and Friends of the Earth ("Sierra Club Comments") at 5 [JAXX]. Although EPA refined its analysis in the final rule, *see* 76 Fed. Reg. at 15,388 (describing three revisions to variability calculation), that refinement did not change the fact that EPA applied the UPL to both existing and new floors in both the proposed and final rules. 76 Fed. Reg. at 15,380; Revised MACT Floor Analysis at 14 [JAXX]. In denying Sierra Club's petition for reconsideration, EPA further noted that Sierra Club did not provide, in either its original comments or its petition for reconsideration, an alternative way of accounting for variability. Sierra Club Petition Denial at 3-4 [JAXX-XX].

Thus, Sierra Club had the opportunity to comment on the use of the UPL to address variability, availed itself of that opportunity, and raised no new points in its petition for reconsideration that could not have been provided in response to the proposed rule. EPA properly denied the petition for reconsideration.

US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

IV. EPA'S BEYOND-THE-FLOOR ANALYSIS IS REASONABLE AND SUPPORTED BY THE RECORD.

A. EPA Appropriately Set MACT Standards For New Multiple Hearth Units At The MACT Floor.

1. The issue has been waived.

In its petition seeking reconsideration of the SSI Rule, Sierra Club argued for the first time that EPA erred in not setting beyond-the-floor standards for new source multiple hearth units, Sierra Club Pet. at 10-13 [JAXX-XX]. Because no commenter argued during the comment period that EPA should adopt beyond-the-floor standards for new source multiple hearth units, it may not be raised in this petition. 42 U.S.C. § 7607(d)(7)(B).

Sierra Club's claim – that it was not able to comment on new source standards for multiple hearth units because EPA proposed new source standards for multiple hearth units based on the emissions performance of fluidized bed units – is unavailing. *See* Sierra Club Pet. for Recons. at 7 [JAXX]. In the proposed rule, EPA specifically sought comment on new source standards for multiple hearth units that were calculated based on the best performing multiple hearth unit (rather than the best performing fluidized bed unit). 75 Fed. Reg. at 63,272 and Table 3. In addition, the preamble to the proposed rule was clear in stating that EPA did not believe that beyond-the-floor standards were warranted for new sources, and that EPA was not proposing beyond-the-floor standards for new sources. *Id.* at 63,277;

see also Revised Estimation of Impacts for New Units at 1-2 and 4 (discussing unlikelihood of construction of new multiple hearth units and analysis of beyond-the-floor options) [JAXX, XX]. The fact that EPA actually included in the proposed rule a table identifying new source standards for multiple hearth units and did not propose beyond-the-floor standards for new sources, *see* 75 Fed. Reg. at 63,272, put commenters on notice that EPA may in fact adopt such standards in the final rule. *Air Transp. Ass'n v. FAA*, 169 F.3d 1, 6 (D.C. Cir. 1999) ("agency's notice must fairly apprise interested persons of the subjects and issues involved in the rulemaking") (citations and internal quotation marks omitted). EPA properly denied reconsideration of this issue. Sierra Club Petition Denial at 2-3 [JAXX-XX].

2. Sierra Club's argument fails on the merits.

Even if Sierra Club had not waived the argument, EPA's decision not to set beyond-the-floor standards for new multiple hearth units was reasonable. As an initial matter, there is no evidence that any new multiple hearth units will even be constructed. In estimating new sources, EPA recognized the general trend of replacing multiple hearth units with fluidized bed units in light of better emissions performance, savings in fuel costs, and flexibility in operation. 76 Fed. Reg. at 15,399. EPA's discussions with industry sources revealed that no new multiple hearth units have been constructed in over twenty years, and that all new sewage

US EPA ARCHIVE DOCUMENT

sludge incinerators constructed since 1988 have been fluidized bed units, some of which replaced existing multiple hearth units. Revised Estimation of Impacts for New Units at 1-2 [JAXX-XX]. Based on this trend, and the data collected, EPA predicted that only two fluidized bed units would be constructed and be operational in the next five years. *Id.* at 2 [JAXX]. Given that no new multiple hearth units are expected to be constructed, it was entirely reasonable for EPA to conclude that beyond-the-floor standards were not warranted for that type of unit.[21]

Second, Sierra Club's argument that EPA "weakened" new source multiple hearth floors is misleading. Sierra Club Br. 35. As noted above, the proposed rule stated that EPA was considering the best performing fluidized bed incinerator to be the best performing multiple hearth incinerator for purposes of calculating new source floors. 75 Fed. Reg. at 63,272. The Agency noted the concerns of some operators of multiple hearth units on this issue and sought public comment. 76 Fed. Reg. at 15,384. Sierra Club did not comment on the issue, and does not argue in its brief that EPA was unjustified in setting new source multiple hearth floors based on the best performing multiple hearth unit. EPA also stated in the proposed rule that it was not proposing beyond-the-floor standards for new sources. 75 Fed. Reg.

[21] Moreover, in the absence of evidence that any new multiple hearth units are expected to be constructed, Sierra Club lacks standing to challenge the standards nominally applicable to such units.

US EPA ARCHIVE DOCUMENT

at 63,277. Nowhere in its brief does Sierra Club explain how EPA was incorrect when it concluded that where there are no more effective emission controls that can be placed on existing sources, it is not possible to set beyond-the-floor standards for new sources. *See* 75 Fed. Reg. at 63,277; Revised Estimation of Impacts for New Units at 4 [JAXX]. Instead, Sierra Club simply states that EPA must set beyond-the-floor standards for new multiple hearth units based on the design of fluidized bed units. Sierra Club Br. 34. Sierra Club points to no information or analysis to demonstrate such standards are warranted based on consideration of the factors set out in Section 129(a)(2).

B. EPA Appropriately Considered The Cost Of Beyond-The-Floor Standards.

CAA Section 129(a)(2) provides that in setting achievable MACT standards, EPA is to take into consideration, *inter alia*, "the cost of achieving such emission reduction." 42 U.S.C. § 7429(a)(2). As explained above, the MACT standards cannot be less stringent than the "floor" levels further specified in Section 129(a)(2). While EPA cannot take cost into account in determining MACT floor levels, it must do so in deciding whether to establish MACT standards that require reductions "beyond the floor."

Sierra Club argues that EPA should consider "whether the cost of a particular control technology renders the application of that technology

US EPA ARCHIVE DOCUMENT

unachievable," [22] and not whether a particular control technology is cost-effective. Sierra Club Pet. for Recons. at 10 [JAXX]; Sierra Club Br. 36-37. Sierra Club does not explain when or how the cost of a particular control technology would render the application of such technology "unachievable," and cites to no statutory analysis, legislative history, or other support for its argument.

Section 129(a)(2)'s direction that EPA consider "the cost of achieving [beyond-the-floor] emission reduction" plainly does not require EPA to establish a beyond-the-floor standard regardless of cost. Where Congress has specifically directed EPA to consider cost, but did not mandate a specific method of cost analysis, it is reasonable for EPA to consider whether beyond-the-floor reductions are achievable, and then to consider cost and other factors (including cost-effectiveness) in deciding whether to require additional reductions. *See Husqvarna AB v. EPA*, 254 F.3d 195, 200-01 (D.C. Cir. 2001) (deferring to EPA's choice to consider costs on a "per ton of emissions removed basis" where the CAA directed EPA to consider cost in setting emission standards for handheld engines). That is precisely what EPA did in this case. Sierra Club Petition Denial at 5 [JAXX]; Revised Beyond-The-Floor Analysis at 1 [JAXX].

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[22] In arguing that EPA should have addressed whether beyond-the-floor measures are "too costly to be 'achievable,'" Sierra Club appears to acknowledge that some form of a cost-benefit analysis is permissible. Sierra Club Br. 37.

US EPA ARCHIVE DOCUMENT

In requiring EPA to consider "the cost of achieving" beyond-the-floor measures, the plain language of Section 129(a)(2) in no way bars EPA from considering cost-effectiveness. Where there is no bar to consideration of costs and benefits of pollution control technologies in setting standards, courts will defer to such an analysis where reasonable. *See, e.g.*, *Entergy Corp. v. Riverkeeper, Inc.*, 556 U.S. 208, 219-24 (2009) (finding EPA's cost-benefit analysis performed in setting CWA standards for cooling-water intake structures reasonable, even where the authorizing statute did not list cost as a factor to be considered in setting such standards).

Further, EPA's cost-effectiveness analysis was reasonable. EPA first identified controls for each Section 129 pollutant that would be more stringent than required to meet the MACT floors to determine if they were technically feasible. Revised Beyond-The-Floor Analysis at 3-4 [JAXX-XX]; 75 Fed. Reg. at 63,275-77; 76 Fed. Reg. at 15,393. To the extent there were technically feasible control technologies available, EPA then reviewed the cost, emission reduction, and cost-effectiveness of those controls. Revised Beyond-The-Floor Analysis at 5-6 [JAXX-XX]; 75 Fed. Reg. at 63,275-77; 76 Fed. Reg. at 15,393.

Sierra Club is mistaken in its assertion, made for the first time in its petition for reconsideration, that EPA did not evaluate the emission reductions for all Section 129 pollutants in connection with a combination of afterburner, fabric

US EPA ARCHIVE DOCUMENT

filter, and activated carbon injection. *See* Revised Beyond-The-Floor Analysis at 3 and Table 1-1 [JAXX, XX].[23] EPA described technologies that would achieve additional reductions beyond the levels achieved by the MACT floor limits for all the Section 129 pollutants that would be reduced the most from use of an afterburner, fabric filter, and activated carbon injection. Revised Beyond-The-Floor Analysis at 5-6 and Table 4 [JAXX-XX, XX]. Based on this analysis, EPA evaluated whether any cost-effective reductions could be achieved beyond the MACT floor level. Therefore, Sierra Club's claims that EPA failed to evaluate the costs and emissions reductions of a combination of control technologies, and failed to evaluate additional available cost-effective reductions for all Section 129 pollutants, is simply incorrect.

Finally, EPA correctly responded to other comments suggesting that controls on the sources of sewage sludge (*e.g.*, household hazardous waste collection, dental amalgam separation programs, and other forms of pre-treatment) could achieve beyond-the-floor reductions by stating that such controls are beyond the scope of Section 129 rulemaking. Response to Comments at 27-1 to 27-2 [JAXX-

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[23] Sierra Club fails to establish why it was not practicable to comment on this issue, especially given the fact that Sierra Club did comment on EPA's proposal to set beyond-the-floor standards for mercury for existing multiple hearth units. Sierra Club Comments at 7 [JAXX].

US EPA ARCHIVE DOCUMENT

XX]. Under Section 129(a)(3), MACT standards are to be based on "methods and technologies for removal or destruction of pollutants before, during or after combustion." 42 U.S.C. § 7429(a)(3). The language of Section 129(a)(3) contrasts with that of Section 112(d)(2)(A) and (D), which direct EPA to base MACT standards on, *inter alia*, measures that reduce or eliminate emissions "through process changes, substitution of materials or other modifications," and "are design, equipment, work practice, or operational standards." 42 U.S.C. § 7412(d)(2)(A), (D). Thus, Section 129 does not authorize EPA to regulate the sources of sewage sludge under the CAA, and no commenter cited any authority to the contrary.

V. THE SSI RULE'S MONITORING REQUIREMENTS REASONABLY ENSURE COMPLIANCE WITH EMISSION STANDARDS.

Sierra Club asserts that CAA Section 129(c) "unambiguously requires" both emissions monitoring and parameter monitoring and that the Rule is unlawful because it only requires parameter monitoring. Sierra Club Br. 40-41. Sierra Club is mistaken on both the law and the facts.

CAA Section 129(c) provides that EPA shall, as part of each performance standard promulgated pursuant to Section 129(a), require the owner or operator of each solid waste incineration unit "(1) to monitor emissions from the unit . . . ; (2) to monitor such other parameters relating to the operation of the unit and its control technology as the Administrator determines are appropriate; and (3) to report the

US EPA ARCHIVE DOCUMENT

results of such monitoring." 42 U.S.C. § 7429(c). As an initial matter, parameter monitoring is only required where EPA determines it to be appropriate, as was the case with the SSI Rule. 76 Fed. Reg. at 15,377, 15,440-41, 15,443-44. Moreover, EPA's monitoring and testing requirements satisfy the requirements of Section 129(c).

To ensure compliance with the emission standards, the Rule does require emissions monitoring, contrary to Sierra Club's assertion. Specifically, the Rule requires initial and annual emissions testing for all pollutants, with the option of continuous emissions monitoring or continuous sampling as an alternative. 40 C.F.R. §§ 60.4865, 60.4885, 60.4900, 60.5185, 60.5205, 60.5220. This ensures that standards are met as an initial matter, and establishes the parameter operating limits under which the facilities' control technologies operate to meet those standards. *See* 75 Fed. Reg. at 63,279. EPA imposed a number of requirements to ensure continued compliance. *Id.*; 76 Fed. Reg. at 15,377. Sources must continuously monitor the operating parameters of their pollution control equipment, 40 C.F.R. §§ 60.4885, 60.4890, 60.5205, 60.5210, and demonstrate that the facility stays within operating limits at all relevant times. *Id.* §§ 60.4860, 60.5180. EPA also requires that sources comply with the inspection and maintenance requirements for their control devices, maintain monitoring data, and submit appropriate compliance reports and notices. *Id.* §§ 60.4885-.4915,

US EPA ARCHIVE DOCUMENT

60.5205-.5235.

Sierra Club ignores the portions of EPA's monitoring and testing requirements that include emissions performance testing to demonstrate initial and annual compliance with the emission limits (or, in the alternative, continuous emissions monitoring or continuous sampling), and a continuous emission monitoring system for carbon monoxide for all new units. 76 Fed. Reg. at 15,377; 40 C.F.R. §§ 60.4865, 60.4885, 60.5185, 60.5205. It is unclear from its brief whether Sierra Club is suggesting that these requirements do not constitute "emissions monitoring," but to the extent that is the case, Sierra Club is wrong. Under CAA Section 504(b), EPA may establish "procedures and methods for determining compliance and for monitoring and analysis of pollutants regulated under this chapter, but continuous emissions monitoring need not be required if alternative methods are available that provide sufficiently reliable and timely information for determining compliance." 42 U.S.C. § 7661c(b). Even in the context of "enhanced monitoring" requirements for major stationary sources under CAA Section 114(a)(3), 42 U.S.C. § 7414(a)(3), this Court has rejected claims that monitoring must be continuous. *NRDC v. EPA*, 194 F.3d 130, 135 (D.C. Cir. 1999).

The recognized purpose of monitoring requirements is to "provide a reasonable assurance of compliance with emissions standards" and to "provide[]

US EPA ARCHIVE DOCUMENT

evidence that will be relevant in any enforcement proceeding." *Id.* at 136-37. Moreover, "because analysis [of compliance] 'requires a high level of technical expertise, [the Court] must defer to the informed discretion' of the Agency." *Nat'l Lime II*, 233 F.3d at 635 (citation omitted). Sierra Club in no way asserts that the monitoring and testing requirements in the Rule will not provide reasonable assurance of compliance with the standards. Indeed, the monitoring and testing requirements do just that by requiring initial and annual testing, and testing to ensure that the control technologies are operating within defined parameters.

Sierra Club is also mistaken in arguing that EPA did not respond to comments that emission and parameter monitoring are required under CAA Section 129(c). Sierra Club Br. 41. EPA explained that it was requiring both emissions testing for all pollutants (with the option of continuous monitoring or sampling) as well as parameter monitoring. Response to Comments at 12-23 [JAXX]; 76 Fed. Reg. at 15,377. Thus, EPA adequately considered and responded to the comment.

Sierra Club has not raised any actual flaw with the Rule's final monitoring requirements. EPA's judgment should be upheld.

US EPA ARCHIVE DOCUMENT

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VI. INTERVENOR MAXWEST LACKS STANDING AND ITS ISSUE IS UNRIPE, OUTSIDE THE SCOPE OF NACWA'S CLAIMS, AND, IN ANY EVENT, LACKS MERIT.

A. MaxWest Did Not Demonstrate, Nor Could It Demonstrate, Its Standing To Challenge The SSI Rule.

D.C. Circuit Rule 28(a)(7) requires that in all cases "involving direct review . . . of administrative actions, the brief of . . . petitioner must set forth the basis for the claim of standing." D.C. Cir. Rule 28(a)(7). When the "petitioner's standing is not apparent from the administrative record, the brief must include arguments and evidence establishing the claim of standing." *Id.* This requirement applies equally to petitioner-intervenors. D.C. Cir. Rule 28(a). Despite this Rule, MaxWest failed to include *any* basis for its standing in its opening brief. In any event, MaxWest would be unable to establish that it has standing to challenge the SSI Rule.

To satisfy the "case or controversy" requirement of Article III of the Constitution, MaxWest must demonstrate that it: (1) has suffered an "injury in fact" that is actual and imminent, not conjectural or hypothetical; (2) the injury complained of is caused by or fairly traceable to the challenged action of EPA; and (3) it is likely that the injury will be redressed by a favorable decision. *See Lujan v. Defenders of Wildlife*, 504 U.S. 555, 560-61 (1992); *see Sierra Club v. EPA*, 292 F.3d 895, 898, 900-01 (D.C. Cir. 2002). Here, MaxWest has no injury at all

because there are no emission limits under the SSI Rule, at this time, with which a gasifier such as MaxWest must comply.

MaxWest's entire brief assumes – without explanation – that the company's gasifier must comply with the emissions standards for fluidized bed or multiple hearth units established by the SSI Rule. Without citing any document, MaxWest claims that "[i]n December 2010, EPA separately determined that MaxWest's process would be regulated by the SSI Rule." Intervenor MaxWest Environmental Systems, Inc.'s Opening Brief in Support of Municipal Petitioners ("MaxWest Br.") 5. That statement is incorrect, as is MaxWest's implicit assumption that its gasifier must comply with the SSI Rule.

The entire basis for MaxWest's assumption that it is subject to the SSI Rule appears to be an applicability determination from EPA under a different set of regulations. On August 26, 2010, MaxWest submitted a letter to EPA requesting a formal applicability determination under 40 C.F.R. Part 61, Subpart E – the National Emissions Standards for Mercury under CAA Section 112 that apply to sludge incineration plants, sludge drying plants, or a combination of these that process wastewater treatment plant sludges, and that pre-date the 1990 CAA

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amendments (which adopted Section 129).[24] *See* Ex. 1 (Aug. 26, 2010 MaxWest letter at 1). EPA replied to MaxWest and explained that the company's gasifier and thermal oxidizer at the plant are sewage sludge incinerators that would be subject to the Part 61, Subpart E emission standard for mercury. *See* Ex. 2 (Dec. 7, 2010 EPA applicability determination at 1-4). EPA also stated that "MaxWest should be aware that the Agency recently proposed Standards of Performance and Emissions Guidelines for sewage sludge incinerators under Section 129 of the Clean Air Act." *Id.* at 4 (citing 75 Fed. Reg. 63,260). As these letters make clear, EPA informed MaxWest that its gasifier and thermal oxidizer constituted a sewage sludge incinerator under the Part 61, Subpart E regulations that would be subject to the mercury emissions standards. EPA's determination did not conclude that the SSI Rule – which at that time was only proposed – also would apply to the gasifier.

Although EPA's determination that the MaxWest gasifier is a sewage sludge incinerator for purposes of the Part 61 regulations supports that this gasifier also would be a sewage sludge incinerator under the SSI Rule, that is not the end of the issue. As explained above, the only two subcategories for which the SSI Rule currently establishes emissions standards are new and existing fluidized bed and

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[24] Pursuant to Section 112(q)(1), 42 U.S.C. § 7412(q)(1), emission standards that are in effect before November 15, 1990 (the date of enactment of the 1990 CAA amendments) remain in effect unless modified.

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multiple hearth units. 40 C.F.R. § 60.5250. MaxWest's gasifier does not meet the regulatory definition of either of those units. Thus, whether MaxWest's gasifier is a sewage sludge incinerator is not alone the determinative factor; the gasifier also must be subject to the emissions standards established by the SSI Rule such that MaxWest would have some type of "actual or imminent injury." *Occidental Permian Ltd. v. FERC*, 673 F.3d 1024, 1027 (D.C. Cir. 2012) (citation and internal quotation marks omitted).

If MaxWest wanted to know if its gasifier is subject to the SSI Rule, it should have submitted a formal applicability determination under 40 C.F.R § 60.5. MaxWest has not done so. If it had, it would have known that it is not currently subject to emission standards under the SSI Rule and unless and until it is, MaxWest will not have any injury sufficient for standing.

B. MaxWest's Claim Is Not Ripe For Judicial Review.

For similar reasons, MaxWest's challenge also is not ripe for review. "Ripeness is a justiciability doctrine that is drawn from both Article III limitations on judicial power and from prudential reasons for refusing to exercise jurisdiction." *Cohen v. United States*, 650 F.3d 717, 742 (D.C. Cir. 2011) (citation and internal quotation marks omitted). "A challenge to an agency regulation is ripe for judicial review where (i) the issue is fit for decision and (ii) delay would impose hardship on the plaintiffs." *Id.* The regulation therefore must require "'an

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immediate and significant change in the plaintiffs' conduct of their affairs with serious penalties attached to noncompliance.'" *Id.* (quoting *Abbott Labs v. Gardner*, 387 U.S. 136, 153 (1967)).

Here, the SSI Rule will not require any immediate or significant change in MaxWest's conduct or impose any hardship on the company because there are no emissions standards for gasifiers in this Rule. Again, only if and when EPA creates such standards will MaxWest have any potential hardship or be required to make immediate and significant changes. Further, EPA has not made any actual decision about whether gasifiers should be included as a separate subcategory and, if so, what the appropriate emissions standards should be. Thus, there is no factual record for the issue on which MaxWest seeks review, as MaxWest currently is not subject to emission standards under the SSI Rule and there is no way of knowing at this point whether MaxWest ever will be required to comply with emission standards under the SSI Rule. *See Texas v. United States* 523 U.S. 296, 300 (1998) ("A claim is not ripe for adjudication if it rests upon contingent future events that may not occur as anticipated, or indeed may not occur at all") (citation and internal quotation marks omitted).

Finally, delaying review of MaxWest's claim until the Court has a full factual record concerning any decision by EPA to develop emissions standards for gasifiers under the SSI Rule will not impose any hardship on MaxWest – the

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company will have the opportunity to challenge any such final agency action at that time in a new petition for review. MaxWest's claim therefore is unripe for judicial review at this time.

C. The Court Should Not Consider MaxWest's Claim Because It Was Not Raised By Petitioners And There Are No Exceptional Circumstances Warranting Consideration.

Even if the MaxWest has standing and its issue is ripe for review, the Court should not consider its claim because it is beyond the issues raised by NACWA and Sierra Club. "[I]ntervenors may only argue issues that have been raised by the principal parties . . . ." *Village of Bensenville v. FAA*, 457 F.3d 52, 61 (D.C. Cir. 2006) (citation and internal quotation marks omitted). The Court has discretion to consider arguments that have been raised only by intervenors in "extraordinary circumstances" where "[t]he intervenor had no incentive to file its own petition for review; and resolution of the issue raised by the intervenor is an essential predicate to the resolution of the issue raised by the petitioner." *AMSC Subsidiary Corp. v. FCC*, 216 F.3d 1154, 1161 (D.C. Cir. 2000) (citations and internal quotation marks omitted). Here, MaxWest's claim goes beyond those raised by Petitioners and neither of the extraordinary circumstances exists that would warrant consideration of the gasifier issue.

MaxWest argues first that gasifiers should not be considered as sewage sludge incinerators and that EPA failed to adequately respond to comments on this

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issue. MaxWest Br. 11-18. It next argues that EPA should have created additional subcategories to account for the "differences in form and substance [of] each type of combustion technology. . . ." *Id.* 18-21. Neither of these issues is within the scope of issues raised by NACWA.

Although both NACWA and MaxWest claim that EPA failed to adequately respond to comments on the subcategorization issue, there is no substantive overlap in NACWA's and MaxWest's arguments as to why they believe it was arbitrary for EPA not to include additional subcategories. NACWA does not claim (like MaxWest does) that its units are not sewage sludge incinerators. Moreover, NACWA's issues have nothing to do with creating subcategories for gasifiers or with differentiating between different types of "combustion technology," which is the focus of MaxWest's arguments. Rather, NACWA claims that EPA should have created additional subcategories based on differences in operating time, size and input among sewage sludge incinerators – not based on the type of combustion technology used. *See supra* Section II. Thus, MaxWest had an incentive to file its own petition (assuming it is actually covered by the Rule) because its gasifier issue is distinct from those raised by NACWA.

Second, resolving whether EPA should include gasifiers as sewage sludge incinerators, whether EPA adequately considered comments on whether gasifiers should be considered sewage sludge incinerators, or whether EPA should have

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included a specific subcategory for gasifiers, is in no way an essential predicate to resolving any of NACWA's issues, including the claims regarding further subcategorization for sewage sludge incinerators based on size, input, and operating time. The Court can adequately resolve NACWA's issues without any need to consider MaxWest's issues, which (as explained above) can be reserved for if and when EPA finalizes emissions standards in the SSI Rule for gasifiers. The Court therefore need not consider MaxWest's issues.

D. MaxWest's Claim Has No Merit.

If the Court reaches the merits of MaxWest's challenge, it has no merit. MaxWest argues that EPA did not adequately respond to comments requesting that gasifiers be excluded from the SSI Rule and that EPA should include a definition of combustion to distinguish it from gasification. MaxWest Br. 11-15. This argument fails for two reasons.

First, as MaxWest states, only one commenter requested that EPA include a definition of "combustion" to distinguish it from gasification and asked that EPA specifically exclude gasifiers from the SSI Rule. *See* County Sanitation Districts of Los Angeles County Comments at 1 [JAXX]. EPA, however, did not propose a definition for "combustion." Such a definition was not essential to EPA's rulemaking because there was no question as to whether the two subcategories for which emissions standards were proposed (fluidized beds and multiple hearths)

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involved combustion. Emission standards for gasifiers and the question of whether gasifiers involve combustion were not at issue because EPA was not aware of – and no commenter provided information on – any existing gasification units.[25] EPA is only required "to give reasoned responses to all *significant* comments in a rulemaking proceeding." *Int'l Fabricare, Inst. v. EPA*, 972 F.2d 384, 389 (D.C. Cir. 1992) (citation and internal quotation marks omitted) (emphasis added); *see City of Portland v. EPA*, 507 F.3d 706, 715 (D.C. Cir. 2007) (quoting same). "Significant comments are those 'which, if true, raise points relevant to the agency's decision *and, which if adopted, would require a change in an agency's proposed rule.*'" *City of Portland*, 507 F.3d at 715 (quoting *Home Box Office, Inc. v. FCC*, 567 F.2d 9, 35 n.58 (D.C. Cir. 1977)) (emphasis in original). Here, any comments on combustion versus gasification and whether gasifiers should be excluded from the SSI Rule were insignificant because emissions standards for gasifiers were not at issue. Thus, any such comments had no bearing on EPA's rulemaking.

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[25] EPA responded to a comment requesting that EPA clarify the applicability of the Rule for facilities that may not be certain whether they are subject to the rule, providing gasification units as an example, by noting that any such facilities could request an applicability determination from the Agency. *See* Response to Comments at 3-4 to 3-5 [JAXX-XX].

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Second, even if EPA should have responded to this comment, the failure to do so is not grounds for invalidating the SSI Rule under CAA Section 307(d)(8), which provides that "the court may invalidate the rule only if the errors were so serious and related to matters of such central relevance to the rule that there is a substantial likelihood that the rule would have been significantly changed if such errors had not been made." 42 U.S.C. § 7607(d)(8). Here, as explained above, the SSI Rule does not impose any emissions standards on gasifiers. Thus, even if EPA did not respond to comments about whether gasification should be included within combustion, such "error" is not serious and the SSI Rule would not have been significantly changed if this error had not been made. Whether gasifiers should have been excluded from rule was not an issue of any relevance to the final emission standards for fluidized bed and multiple hearth units.

CONCLUSION

For the foregoing reasons, EPA respectfully requests that the Court deny the consolidated petitions for review.[26]

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[26] Should the Court decides to remand any portion of the SSI Rule to EPA, Sierra Club's request that the Court set a one-year deadline for EPA to respond to the remand should be denied. Sierra Club Br. at 42. The cases cited by Sierra Club do not support its request, and this Court has denied similar requests because mandamus affords a remedy for undue delay. *See, e.g.*, *NRDC II*, 489 F.3d at 1375 (denying Sierra Club request for a two year limit on EPA's remand proceedings).

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Dated: October 22, 2012

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that, on October 22, 2012, a true and correct copy of the foregoing PROOF BRIEF FOR RESPONDENTS' UNITED STATES ENVIRONMENTAL PROTECTION AGENCY was served electronically through the ECF system on all registered counsel.

_/s/ Michele L. Walter _____
MICHELE L. WALTER

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CERTIFICATE OF COMPLIANCE WITH WORD LIMITATION

Pursuant to Federal Rule of Appellate Procedure 32(a)(7)(C), I hereby certify that the foregoing Brief of Respondent EPA contains 19,895 words as counted by the Microsoft Office Word 2007 word processing system, and thus complies with the applicable word limitation.

_/s/ Michele L. Walter _____

MICHELE L. WALTER

US EPA ARCHIVE DOCUMENT

ADDENDUM

US EPA ARCHIVE DOCUMENT

TABLE OF CONTENTS

STATUTES

33 U.S.C. § 1345 ..... ADD1

42 U.S.C. § 7401 ..... ADD6

42 U.S.C. § 7411 ..... ADD8

42 U.S.C. § 7412 ..... ADD47

42 U.S.C. § 7414 ..... ADD100

42 U.S.C. § 7423 ..... ADD103

42 U.S.C. § 7429 ..... ADD105

42 U.S.C. § 7607 ..... ADD113

42 U.S.C. § 7661c(b) ADD121

CODE OF FEDERAL REGULATIONS

40 C.F.R. § 60.4865 ..... ADD123

40 C.F.R. § 60.4885 ..... ADD126

40 C.F.R. § 60.4915 ..... ADD130

40 C.F.R. § 60.4890 ..... ADD137

40 C.F.R. § 60.4900 ..... ADD139

40 C.F.R. § 60.4930 ..... ADD146

40 C.F.R. § 60.5185 ..... ADD150

40 C.F.R. § 60.5205 ..... ADD153

40 C.F.R. § 60.5235 ..... ADD157

40 C.F.R. § 60.5220 ..... ADD164

40 C.F.R. § 60.5210 ..... ADD171

40 C.F.R. pt. 60, Subpart A, § 60.5 ..... ADD173

40 C.F.R. pt. 61, Subpart C ADD174

40 C.F.R. pt. 61, Subpart E ADD183

40 C.F.R. § 63.1587 ..... ADD197

40 C.F.R. pt. 63, Subpart VVV ADD198

40 C.F.R. § 503.1(a)(1) ADD227

40 C.F.R. § 503.43 ..... ADD228

FEDERAL REGISTERS

58 Fed. Reg. 9248 (Feb. 19, 1993) ADD232

63 Fed. Reg. 66,084 (Dec. 1, 1998) ADD262

64 Fed. Reg. 57,572 (Oct. 26, 1999) ADD268

65 Fed. Reg. 23,459 (Apr. 24, 2000) ADD277

70 Fed. Reg. 55,568 (Sept. 22, 2005) ADD322

70 Fed. Reg. 74,870 (Dec. 16, 2005) ADD328

75 Fed. Reg. 63,260 (Oct. 14, 2010) ADD340

76 Fed. Reg. 15,372 (Mar. 21, 2011) ADD361

77 Fed. Reg. 25,087 (Apr. 27, 2012) ADD444

US EPA ARCHIVE DOCUMENT

40 C.F.R. pt. 60, Subpart A, § 60.5 ..... ADD173

40 C.F.R. pt. 61, Subpart C ADD174

40 C.F.R. pt. 61, Subpart E ADD183

40 C.F.R. § 63.1587 ..... ADD197

40 C.F.R. pt. 63, Subpart VVV ADD198

40 C.F.R. § 503.1(a)(1) ADD227

40 C.F.R. § 503.43 ..... ADD228

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United States Code Annotated Currentness
Title 33. Navigation and Navigable Waters (Refs & Annos)
Chapter 26. Water Pollution Prevention and Control (Refs & Annos)
Subchapter IV. Permits and Licenses (Refs & Annos)

§ 1345. Disposal or use of sewage sludge

(a) Permit

Notwithstanding any other provision of this chapter or of any other law, in any case where the disposal of sewage sludge resulting from the operation of a treatment works as defined in section 1292 of this title (including the removal of in-place sewage sludge from one location and its deposit at another location) would result in any pollutant from such sewage sludge entering the navigable waters, such disposal is prohibited except in accordance with a permit issued by the Administrator under section 1342 of this title.

(b) Issuance of permit; regulations

The Administrator shall issue regulations governing the issuance of permits for the disposal of sewage sludge subject to subsection (a) of this section and section 1342 of this title. Such regulations shall require the application to such disposal of each criterion, factor, procedure, and requirement applicable to a permit issued under section 1342 of this title.

(c) State permit program

Each State desiring to administer its own permit program for disposal of sewage sludge subject to subsection (a) of this section within its jurisdiction may do so in accordance with section 1342 of this title.

(d) Regulations

(1) Regulations

The Administrator, after consultation with appropriate Federal and State agencies and other interested persons, shall develop and publish, within one year after December 27, 1977, and from time to time thereafter, regulations providing guidelines for the disposal of sludge and the utilization of sludge for various purposes. Such regulations shall--

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(A) identify uses for sludge, including disposal;

(B) specify factors to be taken into account in determining the measures and practices applicable to each such use or disposal (including publication of information on costs);

(C) identify concentrations of pollutants which interfere with each such use or disposal.

The Administrator is authorized to revise any regulation issued under this subsection.

(2) Identification and regulation of toxic pollutants

(A) On basis of available information

(i) Proposed regulations

Not later than November 30, 1986, [FN1] the Administrator shall identify those toxic pollutants which, on the basis of available information on their toxicity, persistence, concentration, mobility, or potential for exposure, may be present in sewage sludge in concentrations which may adversely affect public health or the environment, and propose regulations specifying acceptable management practices for sewage sludge containing each such toxic pollutant and establishing numerical limitations for each such pollutant for each use identified under paragraph (1)(A).

(ii) Final regulations

Not later than August 31, 1987, and after opportunity for public hearing, the Administrator shall promulgate the regulations required by subparagraph (A)(i).

(B) Others

(i) Proposed regulations

Not later than July 31, 1987, the Administrator shall identify those toxic pollutants not identified under subparagraph (A)(i) which may be present in sewage sludge in concentrations which may adversely affect public health or the environment, and propose regulations specifying acceptable management practices for sewage sludge containing each such toxic pollutant and establishing numerical limitations for each pollutant for each such use identified under paragraph (1)(A).

(ii) Final regulations

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Not later than June 15, 1988, the Administrator shall promulgate the regulations required by subparagraph (B)(i).

(C) Review

From time to time, but not less often than every 2 years, the Administrator shall review the regulations promulgated under this paragraph for the purpose of identifying additional toxic pollutants and promulgating regulations for such pollutants consistent with the requirements of this paragraph.

(D) Minimum standards; compliance date

The management practices and numerical criteria established under subparagraphs (A), (B), and (C) shall be adequate to protect public health and the environment from any reasonably anticipated adverse effects of each pollutant. Such regulations shall require compliance as expeditiously as practicable but in no case later than 12 months after their publication, unless such regulations require the construction of new pollution control facilities, in which case the regulations shall require compliance as expeditiously as practicable but in no case later than two years from the date of their publication.

(3) Alternative standards

For purposes of this subsection, if, in the judgment of the Administrator, it is not feasible to prescribe or enforce a numerical limitation for a pollutant identified under paragraph (2), the Administrator may instead promulgate a design, equipment, management practice, or operational standard, or combination thereof, which in the Administrator's judgment is adequate to protect public health and the environment from any reasonably anticipated adverse effects of such pollutant. In the event the Administrator promulgates a design or equipment standard under this subsection, the Administrator shall include as part of such standard such requirements as will assure the proper operation and maintenance of any such element of design or equipment.

(4) Conditions on permits

Prior to the promulgation of the regulations required by paragraph (2), the Administrator shall impose conditions in permits issued to publicly owned treatment works under section 1342 of this title or take such other measures as the Administrator deems appropriate to protect public health and the environment from any adverse effects which may occur from toxic pollutants in sewage sludge.

(5) Limitation on statutory construction

Nothing in this section is intended to waive more stringent requirements established by this chapter or any other law.

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(e) Manner of sludge disposal

The determination of the manner of disposal or use of sludge is a local determination, except that it shall be unlawful for any person to dispose of sludge from a publicly owned treatment works or any other treatment works treating domestic sewage for any use for which regulations have been established pursuant to subsection (d) of this section, except in accordance with such regulations.

(f) Implementation of regulations

(1) Through section 1342 permits

Any permit issued under section 1342 of this title to a publicly owned treatment works or any other treatment works treating domestic sewage shall include requirements for the use and disposal of sludge that implement the regulations established pursuant to subsection (d) of this section, unless such requirements have been included in a permit issued under the appropriate provisions of subtitle C of the Solid Waste Disposal Act [42 U.S.C.A. § 6921 et seq.], part C of the Safe Drinking Water Act [42 U.S.C.A. § 300h et seq.], the Marine Protection, Research, and Sanctuaries Act of 1972 [33 U.S.C.A. § 1401 et seq.], or the Clean Air Act [42 U.S.C.A. § 7401 et seq.], or under State permit programs approved by the Administrator, where the Administrator determines that such programs assure compliance with any applicable requirements of this section. Not later than December 15, 1986, [FN2] the Administrator shall promulgate procedures for approval of State programs pursuant to this paragraph.

(2) Through other permits

In the case of a treatment works described in paragraph (1) that is not subject to section 1342 of this title and to which none of the other above listed permit programs nor approved State permit authority apply, the Administrator may issue a permit to such treatment works solely to impose requirements for the use and disposal of sludge that implement the regulations established pursuant to subsection (d) of this section. The Administrator shall include in the permit appropriate requirements to assure compliance with the regulations established pursuant to subsection (d) of this section. The Administrator shall establish procedures for issuing permits pursuant to this paragraph.

(g) Studies and projects

(1) Grant program; information gathering

The Administrator is authorized to conduct or initiate scientific studies, demonstration projects, and public information and education projects which are designed to promote the safe and beneficial management or use of sewage sludge for such purposes as aiding the restoration of abandoned mine sites, conditioning soil for parks and recreation areas, agricultural and horticultural uses, and other beneficial purposes. For the purposes of car-

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rying out this subsection, the Administrator may make grants to State water pollution control agencies, other public or nonprofit agencies, institutions, organizations, and individuals. In cooperation with other Federal departments and agencies, other public and private agencies, institutions, and organizations, the Administrator is authorized to collect and disseminate information pertaining to the safe and beneficial use of sewage sludge.

(2) Authorization of appropriations

For the purposes of carrying out the scientific studies, demonstration projects, and public information and education projects authorized in this section, there is authorized to be appropriated for fiscal years beginning after September 30, 1986, not to exceed $5,000,000.

CREDIT(S)

(June 30, 1948, c. 758, Title IV, § 405, as added Oct. 18, 1972, Pub.L. 92-500, § 2, 86 Stat. 884; amended Dec. 27, 1977, Pub.L. 95-217, §§ 54(d), 68, 91 Stat. 1591, 1606; Feb. 4, 1987, Pub.L. 100-4, Title IV, § 406(a)-(c), (f), 101 Stat. 71, 72, 74.)

[FN1] So in original. Subsec. (d)(2) was enacted by Pub.L. 100-4, which was approved Feb. 4, 1987.

[FN2] So in original. Subsec. (f) was enacted by Pub.L. 100-4, which was approved Feb. 4, 1987.

Current through P.L. 112-174 (excluding P.L. 112-140, 112-141, and 112-166) approved 9-20-12.

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Title 42. The Public Health and Welfare
Chapter 85. Air Pollution Prevention and Control (Refs & Annos)
Subchapter I. Programs and Activities
Part A. Air Quality and Emissions Limitations (Refs & Annos)
§ 7401. Congressional findings and declaration of purpose

(a) Findings

The Congress finds--

(1) that the predominant part of the Nation's population is located in its rapidly expanding metropolitan and other urban areas, which generally cross the boundary lines of local jurisdictions and often extend into two or more States;

(2) that the growth in the amount and complexity of air pollution brought about by urbanization, industrial development, and the increasing use of motor vehicles, has resulted in mounting dangers to the public health and welfare, including injury to agricultural crops and livestock, damage to and the deterioration of property, and hazards to air and ground transportation;

(3) that air pollution prevention (that is, the reduction or elimination, through any measures, of the amount of pollutants produced or created at the source) and air pollution control at its source is the primary responsibility of States and local governments; and

(4) that Federal financial assistance and leadership is essential for the development of cooperative Federal, State, regional, and local programs to prevent and control air pollution.

(b) Declaration

The purposes of this subchapter are--

(1) to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population;

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(2) to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution;

(3) to provide technical and financial assistance to State and local governments in connection with the development and execution of their air pollution prevention and control programs; and

(4) to encourage and assist the development and operation of regional air pollution prevention and control programs.

(c) Pollution prevention

A primary goal of this chapter is to encourage or otherwise promote reasonable Federal, State, and local governmental actions, consistent with the provisions of this chapter, for pollution prevention.

CREDIT(S)

(July 14, 1955, c. 360, Title I, § 101, formerly § 1, as added Dec. 17, 1963, Pub.L. 88-206, § 1, 77 Stat. 392, and renumbered § 101 and amended Oct. 20, 1965, Pub.L. 89-272, Title I, § 101(2), (3), 79 Stat. 992; Nov. 21, 1967, Pub.L. 90-148, § 2, 81 Stat. 485; Nov. 15, 1990, Pub.L. 101-549, Title I, § 108(k), 104 Stat. 2468.)

Current through P.L. 112-174 (excluding P.L. 112-140, 112-141, and 112-166) approved 9-20-12.

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United States Code Annotated Currentness
Title 42. The Public Health and Welfare
Chapter 85. Air Pollution Prevention and Control (Refs & Annos)
Subchapter I. Programs and Activities
Part A. Air Quality and Emissions Limitations (Refs & Annos)
§ 7411. Standards of performance for new stationary sources

(a) Definitions

For purposes of this section:

(1) The term "standard of performance" means a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.

(2) The term "new source" means any stationary source, the construction or modification of which is commenced after the publication of regulations (or, if earlier, proposed regulations) prescribing a standard of performance under this section which will be applicable to such source.

(3) The term "stationary source" means any building, structure, facility, or installation which emits or may emit any air pollutant. Nothing in subchapter II of this chapter relating to nonroad engines shall be construed to apply to stationary internal combustion engines.

(4) The term "modification" means any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant emitted by such source or which results in the emission of any air pollutant not previously emitted.

(5) The term "owner or operator" means any person who owns, leases, operates, controls, or supervises a stationary source.

(6) The term "existing source" means any stationary source other than a new source.

(7) The term "technological system of continuous emission reduction" means--

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(A) a technological process for production or operation by any source which is inherently low-polluting or nonpolluting, or

(B) a technological system for continuous reduction of the pollution generated by a source before such pollution is emitted into the ambient air, including precombustion cleaning or treatment of fuels.

(8) A conversion to coal (A) by reason of an order under section 2(a) of the Energy Supply and Environmental Coordination Act of 1974 [15 U.S.C.A. § 792(a)] or any amendment thereto, or any subsequent enactment which supersedes such Act [15 U.S.C.A. § 791 et seq.], or (B) which qualifies under section 7413(d)(5)(A)(ii) of this title, shall not be deemed to be a modification for purposes of paragraphs (2) and (4) of this subsection.

(b) List of categories of stationary sources; standards of performance; information on pollution control techniques; sources owned or operated by United States; particular systems; revised standards

(1)(A) The Administrator shall, within 90 days after December 31, 1970, publish (and from time to time thereafter shall revise) a list of categories of stationary sources. He shall include a category of sources in such list if in his judgment it causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare.

(B) Within one year after the inclusion of a category of stationary sources in a list under subparagraph (A), the Administrator shall publish proposed regulations, establishing Federal standards of performance for new sources within such category. The Administrator shall afford interested persons an opportunity for written comment on such proposed regulations. After considering such comments, he shall promulgate, within one year after such publication, such standards with such modifications as he deems appropriate. The Administrator shall, at least every 8 years, review and, if appropriate, revise such standards following the procedure required by this subsection for promulgation of such standards. Notwithstanding the requirements of the previous sentence, the Administrator need not review any such standard if the Administrator determines that such review is not appropriate in light of readily available information on the efficacy of such standard. Standards of performance or revisions thereof shall become effective upon promulgation. When implementation and enforcement of any requirement of this chapter indicate that emission limitations and percent reductions beyond those required by the standards promulgated under this section are achieved in practice, the Administrator shall, when revising standards promulgated under this section, consider the emission limitations and percent reductions achieved in practice.

(2) The Administrator may distinguish among classes, types, and sizes within categories of new sources for the purpose of establishing such standards.

(3) The Administrator shall, from time to time, issue information on pollution control techniques for categories of new sources and air pollutants subject to the provisions of this section.

(4) The provisions of this section shall apply to any new source owned or operated by the United States.

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(5) Except as otherwise authorized under subsection (h) of this section, nothing in this section shall be construed to require, or to authorize the Administrator to require, any new or modified source to install and operate any particular technological system of continuous emission reduction to comply with any new source standard of performance.

(6) The revised standards of performance required by enactment of subsection (a)(1)(A)(i) and (ii) of this section shall be promulgated not later than one year after August 7, 1977. Any new or modified fossil fuel fired stationary source which commences construction prior to the date of publication of the proposed revised standards shall not be required to comply with such revised standards.

(c) State implementation and enforcement of standards of performance

(1) Each State may develop and submit to the Administrator a procedure for implementing and enforcing standards of performance for new sources located in such State. If the Administrator finds the State procedure is adequate, he shall delegate to such State any authority he has under this chapter to implement and enforce such standards.

(2) Nothing in this subsection shall prohibit the Administrator from enforcing any applicable standard of performance under this section.

(d) Standards of performance for existing sources; remaining useful life of source

(1) The Administrator shall prescribe regulations which shall establish a procedure similar to that provided by section 7410 of this title under which each State shall submit to the Administrator a plan which (A) establishes standards of performance for any existing source for any air pollutant (i) for which air quality criteria have not been issued or which is not included on a list published under section 7408(a) of this title or emitted from a source category which is regulated under section 7412 of this title but (ii) to which a standard of performance under this section would apply if such existing source were a new source, and (B) provides for the implementation and enforcement of such standards of performance. Regulations of the Administrator under this paragraph shall permit the State in applying a standard of performance to any particular source under a plan submitted under this paragraph to take into consideration, among other factors, the remaining useful life of the existing source to which such standard applies.

(2) The Administrator shall have the same authority--

(A) to prescribe a plan for a State in cases where the State fails to submit a satisfactory plan as he would have under section 7410(c) of this title in the case of failure to submit an implementation plan, and

(B) to enforce the provisions of such plan in cases where the State fails to enforce them as he would have under sections 7413 and 7414 of this title with respect to an implementation plan.

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In promulgating a standard of performance under a plan prescribed under this paragraph, the Administrator shall take into consideration, among other factors, remaining useful lives of the sources in the category of sources to which such standard applies.

(e) Prohibited acts

After the effective date of standards of performance promulgated under this section, it shall be unlawful for any owner or operator of any new source to operate such source in violation of any standard of performance applicable to such source.

(f) New source standards of performance

(1) For those categories of major stationary sources that the Administrator listed under subsection (b)(1)(A) of this section before November 15, 1990, and for which regulations had not been proposed by the Administrator by November 15, 1990, the Administrator shall--

(A) propose regulations establishing standards of performance for at least 25 percent of such categories of sources within 2 years after November 15, 1990;

(B) propose regulations establishing standards of performance for at least 50 percent of such categories of sources within 4 years after November 15, 1990; and

(C) propose regulations for the remaining categories of sources within 6 years after November 15, 1990.

(2) In determining priorities for promulgating standards for categories of major stationary sources for the purpose of paragraph (1), the Administrator shall consider--

(A) the quantity of air pollutant emissions which each such category will emit, or will be designed to emit;

(B) the extent to which each such pollutant may reasonably be anticipated to endanger public health or welfare; and

(C) the mobility and competitive nature of each such category of sources and the consequent need for nationally applicable new source standards of performance.

(3) Before promulgating any regulations under this subsection or listing any category of major stationary sources as required under this subsection, the Administrator shall consult with appropriate representatives of the Governors and of State air pollution control agencies.

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(g) Revision of regulations

(1) Upon application by the Governor of a State showing that the Administrator has failed to specify in regulations under subsection (f)(1) of this section any category of major stationary sources required to be specified under such regulations, the Administrator shall revise such regulations to specify any such category.

(2) Upon application of the Governor of a State, showing that any category of stationary sources which is not included in the list under subsection (b)(1)(A) of this section contributes significantly to air pollution which may reasonably be anticipated to endanger public health or welfare (notwithstanding that such category is not a category of major stationary sources), the Administrator shall revise such regulations to specify such category of stationary sources.

(3) Upon application of the Governor of a State showing that the Administrator has failed to apply properly the criteria required to be considered under subsection (f)(2) of this section, the Administrator shall revise the list under subsection (b)(1)(A) of this section to apply properly such criteria.

(4) Upon application of the Governor of a State showing that--

(A) a new, innovative, or improved technology or process which achieves greater continuous emission reduction has been adequately demonstrated for any category of stationary sources, and

(B) as a result of such technology or process, the new source standard of performance in effect under this section for such category no longer reflects the greatest degree of emission limitation achievable through application of the best technological system of continuous emission reduction which (taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impact and energy requirements) has been adequately demonstrated,

the Administrator shall revise such standard of performance for such category accordingly.

(5) Unless later deadlines for action of the Administrator are otherwise prescribed under this section, the Administrator shall, not later than three months following the date of receipt of any application by a Governor of a State, either--

(A) find that such application does not contain the requisite showing and deny such application, or

(B) grant such application and take the action required under this subsection.

(6) Before taking any action required by subsection (f) of this section or by this subsection, the Administrator shall provide notice and opportunity for public hearing.

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(h) Design, equipment, work practice, or operational standard; alternative emission limitation

(1) For purposes of this section, if in the judgment of the Administrator, it is not feasible to prescribe or enforce a standard of performance, he may instead promulgate a design, equipment, work practice, or operational standard, or combination thereof, which reflects the best technological system of continuous emission reduction which (taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated. In the event the Administrator promulgates a design or equipment standard under this subsection, he shall include as part of such standard such requirements as will assure the proper operation and maintenance of any such element of design or equipment.

(2) For the purpose of this subsection, the phrase "not feasible to prescribe or enforce a standard of performance" means any situation in which the Administrator determines that (A) a pollutant or pollutants cannot be emitted through a conveyance designed and constructed to emit or capture such pollutant, or that any requirement for, or use of, such a conveyance would be inconsistent with any Federal, State, or local law, or (B) the application of measurement methodology to a particular class of sources is not practicable due to technological or economic limitations.

(3) If after notice and opportunity for public hearing, any person establishes to the satisfaction of the Administrator that an alternative means of emission limitation will achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such air pollutant achieved under the requirements of paragraph (1), the Administrator shall permit the use of such alternative by the source for purposes of compliance with this section with respect to such pollutant.

(4) Any standard promulgated under paragraph (1) shall be promulgated in terms of standard of performance whenever it becomes feasible to promulgate and enforce such standard in such terms.

(5) Any design, equipment, work practice, or operational standard, or any combination thereof, described in this subsection shall be treated as a standard of performance for purposes of the provisions of this chapter (other than the provisions of subsection (a) of this section and this subsection).

(i) Country elevators

Any regulations promulgated by the Administrator under this section applicable to grain elevators shall not apply to country elevators (as defined by the Administrator) which have a storage capacity of less than two million five hundred thousand bushels.

(j) Innovative technological systems of continuous emission reduction

(1)(A) Any person proposing to own or operate a new source may request the Administrator for one or more

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waivers from the requirements of this section for such source or any portion thereof with respect to any air pollutant to encourage the use of an innovative technological system or systems of continuous emission reduction. The Administrator may, with the consent of the Governor of the State in which the source is to be located, grant a waiver under this paragraph, if the Administrator determines after notice and opportunity for public hearing, that--

(i) the proposed system or systems have not been adequately demonstrated,

(ii) the proposed system or systems will operate effectively and there is a substantial likelihood that such system or systems will achieve greater continuous emission reduction than that required to be achieved under the standards of performance which would otherwise apply, or achieve at least an equivalent reduction at lower cost in terms of energy, economic, or nonair quality environmental impact,

(iii) the owner or operator of the proposed source has demonstrated to the satisfaction of the Administrator that the proposed system will not cause or contribute to an unreasonable risk to public health, welfare, or safety in its operation, function, or malfunction, and

(iv) the granting of such waiver is consistent with the requirements of subparagraph (C).

In making any determination under clause (ii), the Administrator shall take into account any previous failure of such system or systems to operate effectively or to meet any requirement of the new source performance standards. In determining whether an unreasonable risk exists under clause (iii), the Administrator shall consider, among other factors, whether and to what extent the use of the proposed technological system will cause, increase, reduce, or eliminate emissions of any unregulated pollutants; available methods for reducing or eliminating any risk to public health, welfare, or safety which may be associated with the use of such system; and the availability of other technological systems which may be used to conform to standards under this section without causing or contributing to such unreasonable risk. The Administrator may conduct such tests and may require the owner or operator of the proposed source to conduct such tests and provide such information as is necessary to carry out clause (iii) of this subparagraph. Such requirements shall include a requirement for prompt reporting of the emission of any unregulated pollutant from a system if such pollutant was not emitted, or was emitted in significantly lesser amounts without use of such system.

(B) A waiver under this paragraph shall be granted on such terms and conditions as the Administrator determines to be necessary to assure--

(i) emissions from the source will not prevent attainment and maintenance of any national ambient air quality standards, and

(ii) proper functioning of the technological system or systems authorized.

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Any such term or condition shall be treated as a standard of performance for the purposes of subsection (e) of this section and section 7413 of this title.

(C) The number of waivers granted under this paragraph with respect to a proposed technological system of continuous emission reduction shall not exceed such number as the Administrator finds necessary to ascertain whether or not such system will achieve the conditions specified in clauses (ii) and (iii) of subparagraph (A).

(D) A waiver under this paragraph shall extend to the sooner of--

(i) the date determined by the Administrator, after consultation with the owner or operator of the source, taking into consideration the design, installation, and capital cost of the technological system or systems being used, or

(ii) the date on which the Administrator determines that such system has failed to--

(I) achieve at least an equivalent continuous emission reduction to that required to be achieved under the standards of performance which would otherwise apply, or

(II) comply with the condition specified in paragraph (1)(A)(iii),

and that such failure cannot be corrected.

(E) In carrying out subparagraph (D)(i), the Administrator shall not permit any waiver for a source or portion thereof to extend beyond the date--

(i) seven years after the date on which any waiver is granted to such source or portion thereof, or

(ii) four years after the date on which such source or portion thereof commences operation,

whichever is earlier.

(F) No waiver under this subsection shall apply to any portion of a source other than the portion on which the innovative technological system or systems of continuous emission reduction is used.

(2)(A) If a waiver under paragraph (1) is terminated under clause (ii) of paragraph (1)(D), the Administrator shall grant an extension of the requirements of this section for such source for such minimum period as may be necessary to comply with the applicable standard of performance under this section. Such period shall not extend beyond the date three years from the time such waiver is terminated.

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(B) An extension granted under this paragraph shall set forth emission limits and a compliance schedule containing increments of progress which require compliance with the applicable standards of performance as expeditiously as practicable and include such measures as are necessary and practicable in the interim to minimize emissions. Such schedule shall be treated as a standard of performance for purposes of subsection (e) of this section and section 7413 of this title.

CREDIT(S)

(July 14, 1955, c. 360, Title I, § 111, as added Dec. 31, 1970, Pub.L. 91-604, § 4(a), 84 Stat. 1683; amended Nov. 18, 1971, Pub.L. 92-157, Title III, § 302(f), 85 Stat. 464; Aug. 7, 1977, Pub.L. 95-95, Title I, § 109(a)-(d)(1), (e), (f), Title IV, § 401(b), 91 Stat. 697 to 703, 791; Nov. 16, 1977, Pub.L. 95-190, § 14(a)(7) to (9), 91 Stat. 1399; Nov. 9, 1978, Pub.L. 95-623, § 13(a), 92 Stat. 3457; Nov. 15, 1990, Pub.L. 101-549, Title I, § 108(e) to (g), Title III, § 302(a), (b), Title IV, § 403(a), 104 Stat. 2467, 2574, 2631.)

HISTORICAL AND STATUTORY NOTES

Revision Notes and Legislative Reports

1970 Acts. House Report No. 91-1146 and Conference Report No. 91-1783, see 1970 U.S. Code Cong. and Adm. News, p. 5356.

1971 Acts. House Report No. 92-258 andHouse Conference Report No. 92-578, see 1971 U.S. Code Cong. and Adm. News, p. 1610.

1977 Acts. House Report No. 95-294 andHouse Conference Report No. 95-564, see 1977 U.S. Code Cong. and Adm. News, p. 1077.

House Report No. 95-338, see 1977 U.S. Code Cong. and Adm. News, p. 3648.

1978 Acts. Senate Report No. 95-839 and House Conference Report No. 95-1783, see 1978 U.S. Code Cong. and Adm. News, p. 9088.

1990 Acts. Senate Report No. 101-228, House Conference Report No. 101-952, and Statement by President, see 1990 U.S. Code Cong. and Adm. News, p. 3385.

References in Text

Such Act, referred to in subsec. (a)(8), means Pub.L. 93-319, June 22, 1974, 88 Stat. 246, as amended, known as the Energy Supply and Environmental Coordination Act of 1974, which is classified principally to chapter 16C (section 791 et seq.) of Title 15, Commerce and Trade. For complete classification of this Act to the Code, see

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Short Title note set out under section 791 of Title 15 and Tables.

Section 7413 of this title, referred to in subsec. (a)(8), was amended generally by Pub.L. 101-549, Title VII, § 701, Nov. 15, 1990, 104 Stat. 2672, and, as so amended, subsec. (d) of section 7413 no longer relates to final compliance orders.

Subsec. (a)(1) of this section, referred to in subsec. (b)(6), was amended generally by Pub.L. 101-549, Title IV, § 403(a), Nov. 15, 1990, 104 Stat. 2631, and, as so amended, no longer contains subpars.

Codifications

Section was formerly classified to section 1857c-6 of this title.

Amendments

1990 Amendments. Subsec. (a)(1). Pub.L. 101-549, § 403(a), substituted provisions defining "standard of performance" with respect to any air pollutant, for provisions defining such term with respect to subsec. (b) fossil fuel fired and other stationary sources and subsec. (d) particular sources.

Subsec. (a)(3). Pub.L. 101-549, § 108(f), added at end "Nothing in subchapter II of this chapter relating to nonroad engines shall be construed to apply to stationary internal combustion engines."

Subsec. (b)(1)(B). Pub.L. 101-549, § 108(e)(1), substituted "Within one year" for "Within 120 days", "within one year" for "within 90 days", and "every 8 years" for "every four years", inserted provision directing that the Administrator need not review a standard if it is determined to be unnecessary in light of information on the efficacy of such standard, and added provision requiring the Administrator, when revising standards, to consider the emission limitations and percent reductions achieved in practice when implementation and enforcement of a requirement indicate amounts beyond those required by the standards.

Subsec. (d)(1)(A)(i). Pub.L. 101-549, § 302(a), which directed the substitution of "7412(b)" for "7412(b)(1)(A)", could not be executed, because of the prior amendment by Pub.L. 101-549, § 108(g), see following note.

Pub.L. 101-549, § 108(g), substituted "or emitted from a source category which is regulated under section 7412 of this title" for "or section 7412(b)(1)(A) of this title".

Subsec. (f)(1). Pub.L. 101-549, § 108(e)(2), substituted provisions requiring the Administrator to propose regulations establishing standards of performance for categories of major stationary sources listed before Nov. 15, 1990 for provisions requiring the Administrator to promulgate regulations listing the categories of major station-

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ary sources not on the required list by Aug. 7, 1977 and establishing standards of performance for such categories.

Subsec. (g)(5). Pub.L. 101-549, § 302(b), redesignated former par. (7) as (5), in par. (5), as so redesignated, struck out "or section 7412 of this title" following "this section", and struck out former par. (5), which required Administrator to include pollutant in list under section 7412 of this title upon showing by State Governor that unlisted pollutant was likely to cause mortality or irreversible or incapacitating illness.

Subsec. (g)(6). Pub.L. 101-549, § 302(b), redesignated former par. (8) as (6), and struck out former par. (6), which required Administrator, upon showing by State Governor, to promulgate emission standards for categories of stationary sources of pollutants listed under section 7412 of this title not already subject to such standards.

Subsec. (g)(7). Pub.L. 101-549, § 302(b), redesignated former par. (7) as (5).

Subsec. (g)(8). Pub.L. 101-549, § 302(b), redesignated former par. (8) as (6).

1978 Amendments. Subsec. (d)(1)(A)(ii). Pub.L. 95-623, § 13(a)(2), substituted "under this section" for "under subsection (b) of this section".

Subsec. (g)(4)(B). Pub.L. 95-623, § 13(a)(2), substituted "under this section" for "under subsection (b) of this section".

Subsec. (h)(5). Pub.L. 95-623, § 13(a)(1), added par. (5).

Subsec. (j). Pub.L. 95-623, § 13(a)(3), substituted in pars. (1)(A) and (2)(A) "standards under this section" and "under this section" for "standards under subsection (b) of this section" and "under subsection (b) of this section", respectively.

1977 Amendments. Subsec. (a)(1). Pub.L. 95-95, § 109(c)(1)(A), added subpars. (A), (B), and (C), substituted "For the purpose of subparagraphs (A)(i) and (ii) and (B), a standard of performance shall reflect" for "a standard for emissions of air pollutants which reflects", "and the percentage reduction achievable" for "achievable", and "technological system of continuous emission reduction which (taking into consideration the cost of achieving such emission reduction, and any nonair quality health and environment impact and energy requirements)" for "system of emission reduction which (taking into account the cost of achieving such reduction)" in the existing provisions, and added provision that, for the purpose of subparagraph (1)(A)(ii), any cleaning of the fuel or reduction in the pollution characteristics of the fuel after extraction and prior to combustion may be credited, as determined under regulations promulgated by the Administrator, to a source which burns such fuel.

Subsec. (a)(7). Pub.L. 95-190, § 14(a)(7), redesignated par. (7), as added by section 109(f) of Pub.L. 95-95, as (8).

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Pub.L. 95-95, § 109(c)(1)(B), added par. (7), defining "technological system of continuous emission reduction".

Pub.L. 95-95, § 109(f), added par. (7) directing that under certain circumstances a conversion to coal not be deemed a modification for purposes of pars. (2) and (4).

Subsec. (a)(8). Pub.L. 95-190, § 14(a)(7), redesignated par. (7), as added by section 109(f) of Pub.L. 95-95, as (8).

Subsec. (b)(1)(A). Pub.L. 95-95, § 401(b), substituted "such list if in his judgment it causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger" for "such list if he determines it may contribute significantly to air pollution which causes or contributes to the endangerment of".

Subsec. (b)(1)(B). Pub.L. 95-95, § 109(c)(2), substituted "shall, at least every four years, review and, if appropriate," for "may, from time to time,".

Subsec. (b)(5), (6). Pub.L. 95-95, § 109(c)(3), added pars. (5) and (6).

Subsec. (c)(1). Pub.L. 95-95, § 109(d)(1), struck out "(except with respect to new sources owned or operated by the United States)" following "implement and enforce such standards".

Subsec. (d)(1). Pub.L. 95-95, § 109(b)(1), substituted "standards of performance" for "emission standards" and added provisions directing that regulations of the Administrator permit the State, in applying a standard of performance to any particular source under a submitted plan, to take into consideration, among other factors, the remaining useful life of the existing source to which the standard applies.

Subsec. (d)(2). Pub.L. 95-95, § 109(b)(2), provided that, in promulgating a standard of performance under a plan, the Administrator take into consideration, among other factors, the remaining useful lives of the sources in the category of sources to which the standard applies.

Subsecs. (f) to (i). Pub.L. 95-95, § 109(a), added subsecs. (f) to (i).

Subsec. (j). Pub.L. 95-190, § 14(a)(8), (9), redesignated former subsec. (k) as (j) and, as so redesignated, substituted "(B)" for "(8)" as designation for second subpar. in par. (2). Former subsec. (j), added by Pub.L. 95-95, § 109(e), which related to compliance with applicable standards of performance, was struck out.

Subsec. (k). Pub.L. 95-190, § 14(a)(8), redesignated former subsec. (k) as (j).

Pub.L. 95-95, § 109(e), added subsec. (k).

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1971 Amendments. Subsec. (b)(1)(B). Pub.L. 92-157 substituted in first sentence "publish proposed" for "propose".

Effective and Applicability Provisions

1990 Acts. Amendment by Pub.L. 101-549 effective Nov. 15, 1990, except as otherwise provided, see section 711(b) of Pub.L. 101-549, set out as a note under section 7401 of this title.

1977 Acts. Amendment by Pub.L. 95-95 effective Aug. 7, 1977, except as otherwise expressly provided, see section 406(d) of Pub.L. 95-95, set out as a note under section 7401 of this title.

Transfer of Functions

Enforcement functions of Administrator or other official in Environmental Protection Agency related to compliance with new source performance standards under this section with respect to pre-construction, construction, and initial operation of transportation system for Canadian and Alaskan natural gas transferred to Federal Inspector, Office of Federal Inspector for the Alaska Natural Gas Transportation System, until first anniversary of date of initial operation of Alaska Natural Gas Transportation System, see Reorg. Plan No. 1 of 1979, eff. July 1, 1979, §§ 102(a), 203(a), 44 F.R. 33663, 33666, 93 Stat. 1373, 1376, set out in Appendix 1 to Title 5, Government Organization and Employees Office of Federal Inspector for the Alaska Natural Gas Transportation System abolished and functions and authority vested in Inspector transferred to Secretary of Energy by section 3012(b) of Pub.L. 102-486, set out as an Abolition of Office of Federal Inspector note under section 719e of Title 15, Commerce and Trade.

Savings Provisions

Suits, actions or proceedings commenced under this chapter as in effect prior to Nov. 15, 1990, not to abate by reason of the taking effect of amendments by Pub.L. 101-549, except as otherwise provided for, see section 711(a) of Pub.L. 101-549, set out as a note under section 7401 of this title.

Suits, actions, and other proceedings lawfully commenced by or against the Administrator or any other officer or employee of the United States in his official capacity or in relation to the discharge of his official duties under Act July 14, 1955, the Clean Air Act, as in effect immediately prior to the enactment of Pub.L. 95-95 [Aug. 7, 1977], not to abate by reason of the taking effect of Pub.L. 95-95, see section 406(a) of Pub.L. 95-95, set out as an Effective and Applicability Provisions note under section 7401 of this title.

Prior Provisions

A prior section 111 of Act July 14, 1955, was renumbered section 118 by Pub.L. 91-604, and is set out as section 7418 of this title.

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Modification or Rescission of Rules, Regulations, Orders, Determinations, Contracts, Certifications, Authorizations, Delegations, and Other Actions

All rules, regulations, orders, determinations, contracts, certifications, authorizations, delegations, or other actions duly issued, made, or taken by or pursuant to Act July 14, 1955, the Clean Air Act, as in effect immediately prior to the date of enactment of Pub.L. 95-95 [Aug. 7, 1977] to continue in full force and effect until modified or rescinded in accordance with Act July 14, 1955, as amended by Pub.L. 95-95 [this chapter], see section 406(b) of Pub.L. 95-95, set out as an Effective Date note under section 7401 of this title.

Revised Regulations; Applicability

Section 403(b), (c) of Pub.L. 101-549 provided that:

"(b) Revised regulations.--Not later than three years after the date of enactment of the Clean Air Act Amendments of 1990 [Nov. 15, 1990], the Administrator shall promulgate revised regulations for standards of performance for new fossil fuel fired electric utility units commencing construction after the date on which such regulations are proposed that, at a minimum, require any source subject to such revised standards to emit sulfur dioxide at a rate not greater than would have resulted from compliance by such source with the applicable standards of performance under this section [amending sections 9411 and 7479 of this title] prior to such revision.

"(c) Applicability.--The provisions of subsections (a) [amending subsec. (a)(1) of this section] and (b) [subsec. (b) of this note] apply only so long as the provisions of section 403(e) of the Clean Air Act [section 7651b(e) of this title] remain in effect."

CROSS REFERENCES

Federally permitted release defined to include emissions into air subject to permit or control regulation under this section for purposes of Comprehensive Environmental Response, Compensation, and Liability Act of 1980, see 42 USCA § 9601.

LAW REVIEW COMMENTARIES

Establishing interstate markets for emissions trading of ozone precursors: Case of the Northeast Ozone Transport Commission and the Northeast States for Coordinated Air Use Management emissions trading proposals. 3 N.Y.U.Envtl.L.J. 195 (1994).

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NOTES OF DECISIONS

Generally 1
Accrual of action 44
Alternative solutions, considerations governing adoption of standards 17
Applicability of standards 27
Arbitrary or capricious administrative actions 37
Authority of Agency 8
Best system adequately demonstrated, standard of performance defined 11
Burden of proof 39
Change in administrative interpretations 34
Considerations governing adoption of standards 16-21
- Considerations governing adoption of standards - Generally 16
- Considerations governing adoption of standards - Alternative solutions 17
- Considerations governing adoption of standards - Cost-benefit analysis 18
- Considerations governing adoption of standards - Environmental impact 19
- Considerations governing adoption of standards - Opacity 20

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Considerations governing adoption of standards - Technological innovation 21
Construction 2
Cost of achieving reduction, standard of performance defined 12
Cost-benefit analysis, considerations governing adoption of standards 18
Degree of emission reduction achievable, standard of performance defined 10
Environmental impact, considerations governing adoption of standards 19
Exclusions, new source defined 13-13a
Exemptions from standards 25
Force and effect of standards 26
Law governing 4
Modeling as basis of standards 23
Modification defined 15
New source defined 13
New source defined - Generally 13
New source defined - Exclusions 13a
Notice and comment 22
Opacity, considerations governing adoption of standards 20
Presumptions 38
Purpose 3
Reasonableness of administrative interpretations 35
Reasonableness of standards 28
Remand to Agency or Administrator 43
Retroactive effect 5
Scope of review 41
Standard of performance defined 9-12
Standard of performance defined - Generally 9
Standard of performance defined - Best system adequately demonstrated 11
Standard of performance defined - Cost of achieving reduction 12
Standard of performance defined - Degree of emission reduction achievable 10
Standard of review 42
State implementation and enforcement of standards 33
State regulation or control 6
Stationary source defined 14
Technological innovation, considerations governing adoption of standards 21
Technology-forcing nature of chapter 7
Test results as basis of standards 24
Uniformity of standards 29
Validity of standards 30
Variable or flexible standards 31
Waiver of standards 32
Weight and conclusiveness of administrative interpretations 36
Weight and sufficiency of evidence 40

1. Generally

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This chapter does not preclude construction of projects which might interfere with attainment and maintenance of air quality standards, but provides for promulgation of implementation plans and setting of standards of performance for stationary sources. Plan For Arcadia, Inc. v. Anita Associates, C.D.Cal.1973, 379 F.Supp. 311, affirmed 501 F.2d 390, certiorari denied 95 S.Ct. 517, 419 U.S. 1034, 42 L.Ed.2d 309. Environmental Law 254

2. Construction

Availability of nuisance claim against operators of fossil-fuel fired power plants under laws of states where plants were operated would be left for consideration on remand by United States Supreme Court following determination that federal common law right to seek abatement of carbon dioxide emissions from those plants had been displaced by Clean Air Act (CAA), where none of the parties had briefed issue of preemption or otherwise addressed availability of claim under state nuisance law. American Elec. Power Co., Inc. v. Connecticut, U.S.2011, 131 S.Ct. 2527, 180 L.Ed.2d 435. Federal Courts 462

Subsec. (j) of this section relating to innovative technological systems of continuous emission reduction supplements rather than restricts Agency's discretion under subsec. (a) of this section defining standards of performance. Sierra Club v. Costle, C.A.D.C.1981, 657 F.2d 298, 211 U.S.App.D.C. 336. Environmental Law 254

3. Purpose

This chapter, which was designed to reduce existing levels of air pollution, was also designed to prevent new pollution problems, especially deterioration of air quality in areas where existing air quality levels exceed promulgated air quality standards. National Asphalt Pavement Ass'n v. Train, C.A.D.C.1976, 539 F.2d 775, 176 U.S.App.D.C. 296. Environmental Law 245

4. Law governing

A “savings” clause did perpetuate rules, regulations, orders, determinations or other actions already duly issued, made or taken, but as Agency's new source performance standards for lime-manufacturing plants were not “duly issued” until finally promulgated in March 1978, the substantive aspects of finally promulgated standards were governed by 1977 amendments of provisions of this section for new source performance standards. National Lime Ass'n v. Environmental Protection Agency, C.A.D.C.1980, 627 F.2d 416, 200 U.S.App.D.C. 363. Environmental Law 248

Even though Ohio Environmental Protection Agency found that city's steam generating coal-fired power unit was not a “new stationary source” under Ohio law, where Ohio law differed from regulations promulgated pursuant to this section, the Federal Environmental Protection Agency was not bound by state determination that power unit was not a “new stationary source” and was not precluded from contending that unit was subject to emission standards established by federal regulations. U. S. v. City of Painesville, N.D.Ohio 1977, 431 F.Supp. 496, affirmed 644 F.2d 1186, certiorari denied 102 S.Ct. 392, 454 U.S. 894, 70 L.Ed.2d 209, rehearing denied 102 S.Ct. 619, 454 U.S. 1069, 70 L.Ed.2d 604. States 18.31

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5. Retroactive effect

Environmental Protection Agency regulation invoking application of new source performance standards upon "reconstruction" of stationary source of particulate emissions, regardless of effect of such reconstruction on particulate emission rate, would not be retroactively applied to asphalt concrete facility, the renovation of which was completed prior to adoption of the regulation; regulation was not merely clarification of existing Environmental Protection Agency policy, but represented abrupt departure from prior law, and, furthermore, no overwhelming public interest justified retroactive application. U.S. v. Narragansett Imp. Co., D.C.R.I.1983, 571 F.Supp. 688. Environmental Law 248

Provision of this section directing the Administrator to publish a list of categories of stationary sources which "contribute significantly to air pollution which causes or contributes to the endangerment of public health or welfare", and to thereafter promulgate pollution standards for "new sources" within such categories, applies only to sources constructed or modified after the effective date of the standard and does not contemplate retrofitting of preexisting facilities. People of State of Cal. ex rel. State Air Resources Bd. v. Department of Navy, N.D.Cal.1977, 431 F.Supp. 1271, affirmed 624 F.2d 885. Environmental Law 268

6. State regulation or control

In action by eight states, New York City, and three land trusts against electric power corporations that owned and operated fossil-fuel-fired power plants in twenty states seeking abatement of their ongoing contributions to public nuisance of global warming, plaintiffs had Article III standing under Supreme Court's 2007 *Massachusetts v. EPA* decision which permitted a state to challenge refusal of Environmental Protection Agency (EPA) to regulate greenhouse gas emissions, and no other threshold obstacle barred review. (Per Justice Ginsburg for an equally divided court.) American Elec. Power Co., Inc. v. Connecticut, U.S.2011, 131 S.Ct. 2527, 180 L.Ed.2d 435. Nuisance 82

Under the Environmental Protection Agency's (EPA's) delegation of its authority to enforce the Clean Air Act to a state agency, the EPA reserved to itself the power to continue enforcement of the Act where it saw fit, despite the absence of or different action on the part of the state agency. U.S. v. Chevron, U.S.A. Inc., E.D.Pa.1990, 757 F.Supp. 512. Environmental Law 254

Fact that the Agency has not included jet engine test cells in its list of "stationary sources" under this section does not preclude state regulation of test cells under § 7410 of this title. People of State of Cal. ex rel. State Air Resources Bd. v. Department of Navy, N.D.Cal.1977, 431 F.Supp. 1271, affirmed 624 F.2d 885. States 18.31

In enacting this section, Congress intended that federal enforcement of federal air pollution standards not be controlled by the states. U. S. v. City of Painesville, N.D.Ohio 1977, 431 F.Supp. 496, affirmed 644 F.2d 1186, certiorari denied 102 S.Ct. 392, 454 U.S. 894, 70 L.Ed.2d 209, rehearing denied 102 S.Ct. 619, 454 U.S. 1069, 70 L.Ed.2d 604. States 18.31

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7. Technology-forcing nature of chapter

This chapter is a technology-forcing statute. Sierra Club v. Costle, C.A.D.C.1981, 657 F.2d 298, 211 U.S.App.D.C. 336. Environmental Law 254

8. Authority of Agency

Provision of this section relating to standards of performance for new stationary sources gives Agency authority when determining best technological system to weigh cost, energy, and environmental impacts in broadest sense at national and regional levels and over time as opposed to simply at plant level in immediate present. Sierra Club v. Costle, C.A.D.C.1981, 657 F.2d 298, 211 U.S.App.D.C. 336. Environmental Law 268

9. Standard of performance defined--Generally

Environmental Protection Agency (EPA), in promulgating rule interpreting New Source Review (NSR) permitting process for stationary sources under Clean Air Act (CAA), improperly provided for use of "clean unit" status as means of measuring emissions increases rather than actual emissions; plain language of CAA indicated that Congress intended to apply NSR to facility changes that increased actual emissions instead of potential or allowable emissions. New York v. U.S. E.P.A., C.A.D.C.2005, 413 F.3d 3, 367 U.S.App.D.C. 3, rehearing en banc denied , rehearing denied 431 F.3d 801, 369 U.S.App.D.C. 11. Environmental Law 268

New source performance standards governing emission control by coal burning power plants must maximize potential for long-term economic growth by reducing emissions as much as practicable. Sierra Club v. Costle, C.A.D.C.1981, 657 F.2d 298, 211 U.S.App.D.C. 336. Environmental Law 269

10. ---- Degree of emission reduction achievable, standard of performance defined

"Representative performance of the facility," within meaning of Environmental Protection Agency regulations requiring that manual emission tests and continuous monitoring systems be based upon "representative performance of the facility" when determining applicability to power plant of "new source performance standards" under Clean Air Act, refers generally to all conditions of test, not specifically to its timing. Wisconsin Elec. Power Co. v. Reilly, C.A.7 1990, 893 F.2d 901, rehearing denied. Environmental Law 254

Provision of this section relating to standards of performance for new stationary sources does not mandate any particular percentage but reflects to degree of emission limitation and the percentage reduction achievable through application of the best technological system of continuous emission reduction which the Administrator determines has been adequately demonstrated. Sierra Club v. Costle, C.A.D.C.1981, 657 F.2d 298, 211 U.S.App.D.C. 336. Environmental Law 268

"Achievable standard" within purview of this section defining standard of performance as standard for emissions of air pollutant which reflects degree of emission limitation achievable through application of best system of emission reduction that Administrator determines has been adequately demonstrated is one within realm of adequately demonstrated system's efficiency and one which, while not at a level that is purely theoretical or experi-

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mental, need not necessarily be routinely achieved within industry prior to its adoption. National Asphalt Pavement Ass'n v. Train, C.A.D.C.1976, 539 F.2d 775, 176 U.S.App.D.C. 296. Environmental Law 254

For purposes of subsec. (a)(1) of this section an achievable standard is one which is within realm of adequately demonstrated system's efficiency and which, while not at a level that is purely theoretical or experimental, need not necessarily be routinely achieved within industry prior to its adoption. Essex Chemical Corp. v. Ruckelshaus, C.A.D.C.1973, 486 F.2d 427, 158 U.S.App.D.C. 360, certiorari denied 94 S.Ct. 1991, 416 U.S. 969, 40 L.Ed.2d 558. Environmental Law 254

11. ---- Best system adequately demonstrated, standard of performance defined

Fact that incremental cost of reducing boilers' nitrogen oxides emissions was higher with selective catalytic reduction (SCR) required under new Environmental Protection Agency (EPA) standards than with combustion controls did not establish that SCR was not best demonstrated system under Clean Air Act, in view of EPA's findings that new standards would only modestly increase cost of producing electricity in newly constructed boilers. Lignite Energy Council v. U.S. E.P.A., C.A.D.C.1999, 198 F.3d 930, 339 U.S.App.D.C. 183. Environmental Law 281

Agency's incorrect assumption that any of three control methods identified as “best” could be designed to meet new source performance standards for lime-manufacturing plants would not necessarily taint proceeding, whose purpose was to state an “achievable” standard under any “adequately demonstrated” system, but incorrect assumption would probably have been reflected in Agency's cost analysis, viz., the Agency would have assumed that broader choice of control methods was available to limestone industry than in fact was available, and to extent that cost analysis depended on such incorrect assumption, rationale for standards may be flawed. National Lime Ass'n v. Environmental Protection Agency, C.A.D.C.1980, 627 F.2d 416, 200 U.S.App.D.C. 363. Environmental Law 271

“Adequately demonstrated” within purview of this section defining standard of performance as standard for emissions of air pollutants reflecting degree of emission limitation achievable through application of best system of emission reduction that Administrator determined has been adequately demonstrated does not mean that existing asphalt concrete plant must be capable of meeting standard but rather looks toward what may fairly be projected for regulated future. National Asphalt Pavement Ass'n v. Train, C.A.D.C.1976, 539 F.2d 775, 176 U.S.App.D.C. 296. Environmental Law 270

This section provides that a new source of pollutant emissions must utilize the best available technology to reduce emissions without regard to air quality standards. Kennecott Copper Corp. v. Train, C.A.9 1975, 526 F.2d 1149, certiorari denied 96 S.Ct. 1665, 425 U.S. 935, 48 L.Ed.2d 176.

For purposes of subsec. (a)(1) of this section defining “standard of performance,” an adequately demonstrated system is one which has been shown to be reasonably reliable, reasonably efficient, and which can reasonably be expected to serve interests of pollution control without becoming exorbitantly costly in an economic or environmental way. Essex Chemical Corp. v. Ruckelshaus, C.A.D.C.1973, 486 F.2d 427, 158 U.S.App.D.C. 360, certi-

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orari denied 94 S.Ct. 1991, 416 U.S. 969, 40 L.Ed.2d 558. Environmental Law 254

12. ---- Cost of achieving reduction, standard of performance defined

An achievable new source performance standard for industry need not be one already routinely achieved in industry, but, to be achievable, a uniform standard must be capable of being met under most adverse conditions which can reasonably be expected to recur and which are not or cannot be taken into account in determining "costs" of compliance. National Lime Ass'n v. Environmental Protection Agency, C.A.D.C.1980, 627 F.2d 416, 200 U.S.App.D.C. 363. Environmental Law 262

System of emission reduction required under this section must be one which can reasonably be expected to serve interest of pollution control without becoming exorbitantly costly in economic or environmental way. National Asphalt Pavement Ass'n v. Train, C.A.D.C.1976, 539 F.2d 775, 176 U.S.App.D.C. 296. Environmental Law 254

Administrator must take into account the cost of achieving the emission reduction he prescribes. Portland Cement Ass'n v. Train, C.A.D.C.1975, 513 F.2d 506, 168 U.S.App.D.C. 248, certiorari denied 96 S.Ct. 469, 423 U.S. 1025, 46 L.Ed.2d 399, rehearing denied 96 S.Ct. 889, 423 U.S. 1092, 47 L.Ed.2d 104. Environmental Law 254

Record supported claim that economic costs had been taken into account in selecting best system for sulfur-burning plants, whether that system be dual absorption, sodium sulfite-bisulfite scrubber, or acid mist controls. Essex Chemical Corp. v. Ruckelshaus, C.A.D.C.1973, 486 F.2d 427, 158 U.S.App.D.C. 360, certiorari denied 94 S.Ct. 1991, 416 U.S. 969, 40 L.Ed.2d 558. Environmental Law 280

13. New source defined--Generally

Environmental Protection Agency (EPA), in promulgating rule interpreting New Source Review (NSR) permitting process for stationary sources under Clean Air Act (CAA), was not arbitrary and capricious in selecting ten-year "lookback" period for calculating baseline actual emissions; although data was incomplete on prospective impacts of new methodology, EPA's predictive judgment was entitled to deference. New York v. U.S. E.P.A., C.A.D.C.2005, 413 F.3d 3, 367 U.S.App.D.C. 3, rehearing en banc denied , rehearing denied 431 F.3d 801, 369 U.S.App.D.C. 11. Environmental Law 268; Environmental Law 683

Agency did not exceed its statutory authority under subsec. (a) of this section in promulgating new source performance standards governing emission control by coal burning power plants. Sierra Club v. Costle, C.A.D.C.1981, 657 F.2d 298, 211 U.S.App.D.C. 336. Environmental Law 269

Interpretation by Agency that boiler which city did not purchase until almost one year after cutoff date under regulations for new sources of carbon dioxide, was "new source" was not plainly erroneous. U. S. v. City of Painesville, Ohio, C.A.6 (Ohio) 1981, 644 F.2d 1186, certiorari denied 102 S.Ct. 392, 454 U.S. 894, 70 L.Ed.2d 209, rehearing denied 102 S.Ct. 619, 454 U.S. 1069, 70 L.Ed.2d 604. Environmental Law 301

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Renovation of existing asphalt concrete facility to replace filter bag house with electrostatic precipitator did not constitute "construction" of "new source," under this section, so as to impose upon facility requirements of new source performance standards, at least where the renovation resulted in no material increase in production capacity or in amount or type of particulate matter emissions. U.S. v. Narragansett Imp. Co., D.C.R.I.1983, 571 F.Supp. 688. Environmental Law 277

Jet engine test cells are not "new sources" within the meaning of this section. People of State of Cal. ex rel. State Air Resources Bd. v. Department of Navy, N.D.Cal.1977, 431 F.Supp. 1271, affirmed 624 F.2d 885.

Where as of Aug. 17, 1971, no contract for production of boiler for city's steam generating coal-fired power unit had been entered into nor had construction of power unit progressed to the point that change in its design would have required facility already erected to be modified in order to insure that it could comply with the sulfur dioxide emission standards of regulations promulgated pursuant to this section, "construction" of power unit had not "commenced" as of Aug. 17, 1971 within meaning of regulations and thus power unit was a "new stationary source" subject to the emission standards established by the regulations. U. S. v. City of Painesville, N.D.Ohio 1977, 431 F.Supp. 496, affirmed 644 F.2d 1186, certiorari denied 102 S.Ct. 392, 454 U.S. 894, 70 L.Ed.2d 209, rehearing denied 102 S.Ct. 619, 454 U.S. 1069, 70 L.Ed.2d 604. Environmental Law 269; Environmental Law 280

13a. ---- Exclusions, new source defined

Environmental Protection Agency (EPA), in promulgating rule interpreting New Source Review (NSR) permitting process for stationary sources under Clean Air Act (CAA), did not act unlawfully in providing for demand growth exclusion to post-change emissions calculation; notwithstanding inconsistent tentative conclusions, EPA adequately explained its reasons for extending exclusion to all industries, so long as growth was unrelated to change. New York v. U.S. E.P.A., C.A.D.C.2005, 413 F.3d 3, 367 U.S.App.D.C. 3, rehearing en banc denied , rehearing denied 431 F.3d 801, 369 U.S.App.D.C. 11. Environmental Law 268; Environmental Law 293

14. Stationary source defined

Environmental Protection Agency regulation allowing states to treat all pollution-emitting devices within same industrial grouping as though they were encased within single "bubble" was based on permissible construction of term "stationary source" in the subsec. a of this section. Chevron, U.S.A., Inc. v. Natural Resources Defense Council, Inc., U.S.Dist.Col.1984, 104 S.Ct. 2778, 467 U.S. 837, 81 L.Ed.2d 694, rehearing denied 105 S.Ct. 28, 468 U.S. 1227, 82 L.Ed.2d 921, rehearing denied 105 S.Ct. 29, 468 U.S. 1227, 82 L.Ed.2d 921. Environmental Law 268

Environmental Protection Agency (EPA), in promulgating rule interpreting New Source Review (NSR) permitting process for stationary sources under Clean Air Act (CAA), did not act unlawfully in reinterpreting statutory term "increases" by adopting new method for calculating baseline actual emissions; ten-year "lookback" period provided for in new rule fulfilled statutory goal of balancing economic growth with need to protect air quality. New York v. U.S. E.P.A., C.A.D.C.2005, 413 F.3d 3, 367 U.S.App.D.C. 3, rehearing en banc denied , rehearing

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denied 431 F.3d 801, 369 U.S.App.D.C. 11. Environmental Law 268

Agency ambient air quality standards for new stationary sources definition of a "fossil fuel-fired steam generating unit" as "a furnace or boiler used in the process of burning fossil fuel for the purpose of producing steam by heat transfer" included not only boilers operating entirely on fossil fuel but also waste heat boilers which used a combination of fossil fuel and waste heat gases. PPG Industries, Inc. v. Harrison, C.A.5 1981, 660 F.2d 628. Environmental Law 269

Agency regulations incorporating "bubble concept" by defining a stationary source to include any combination of facilities and allowing source whose emissions are increased by alterations to avoid complying with new source performance standards if emission decreases from other facilities within the source cancel out increase from alterations were inconsistent with language and purpose of this section defining stationary source as any facility emitting an air pollutant and mandating that new source performance standards be applied to any structure that undergoes any physical change increasing amount of air pollutants and could not be justified by any alleged need for flexibility. ASARCO Inc. v. Environmental Protection Agency, C.A.D.C.1978, 578 F.2d 319, 188 U.S.App.D.C. 77. Environmental Law 268

For purposes of this chapter shopping center was a "complex source" and was not to be treated as stationary source. Plan For Arcadia, Inc. v. Anita Associates, C.D.Cal.1973, 379 F.Supp. 311, affirmed 501 F.2d 390, certiorari denied 95 S.Ct. 517, 419 U.S. 1034, 42 L.Ed.2d 309. Environmental Law 268

15. Modification defined

One-hour new source review (NSR), one-hour penalties, rate-of-progress milestones, contingency plans, and motor vehicle conformity demonstrations were ozone "controls" under CAA, and withdrawing any of them from state implementation plan (SIP) would have constituted impermissible backsliding. South Coast Air Quality Management Dist. v. E.P.A., C.A.D.C.2006, 472 F.3d 882, 374 U.S.App.D.C. 121, decision clarified on denial of rehearing 489 F.3d 1245, 376 U.S.App.D.C. 409, certiorari denied 128 S.Ct. 1065, 552 U.S. 1140, 169 L.Ed.2d 807. Environmental Law 287

Environmental Protection Agency (EPA) regulation which exempted equipment replacements from New Source Review (NSR) if the fixed capital cost of the replacement component did not exceed twenty percent of the replacement value of the process unit and did not change its basic design parameters violated Clean Air Act (CAA) requirement of NSR if any physical change increased emissions; by using the word "any" to define a modification, Congress meant to cover all types of physical changes, and the regulation would allow equipment replacements resulting in non-de minimis emission increases to avoid NSR. New York v. E.P.A., C.A.D.C.2006, 443 F.3d 880, 370 U.S.App.D.C. 239, rehearing en banc denied , certiorari denied 127 S.Ct. 2127, 550 U.S. 928, 167 L.Ed.2d 882. Environmental Law 274

Definition of "modification" within Environmental Protection Agency (EPA) rule interpreting New Source Review (NSR) permitting process for stationary sources under Clean Air Act (CAA) did not unlawfully differ from term's prior definition for New Source Performance Standards (NSPS) purposes; although Congress used same

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language in both contexts, there were no indications in statutory language or history to support inference that Congress intended to incorporate preexisting regulatory definition into statute. New York v. U.S. E.P.A., C.A.D.C.2005, 413 F.3d 3, 367 U.S.App.D.C. 3, rehearing en banc denied , rehearing denied 431 F.3d 801, 369 U.S.App.D.C. 11. Environmental Law 291

Power company's replacement program for electric power plant constituted "physical change," within definition of a "modification" which will subject power plant to "new source performance standards" under Clean Air Act, where power company proposed to replace rear steam drums and air heaters. Wisconsin Elec. Power Co. v. Reilly, C.A.7 1990, 893 F.2d 901, rehearing denied. Environmental Law 269

Proposal of owner of aluminum reduction plant to turn off its wet scrubbers was a "modification" of existing facility under Clean Air Act; nonuse of wet scrubbers would leave gaseous fluorides virtually uncontrolled and would not decrease emissions of any other pollutant. National-Southwire Aluminum Co. v. U.S. E.P.A., C.A.6 1988, 838 F.2d 835, 94 A.L.R. Fed. 733, certiorari denied 109 S.Ct. 390, 488 U.S. 955, 102 L.Ed.2d 379. Environmental Law 271; Environmental Law 276

Word "increases" as used in definition of "modification" for purpose of prevention of significant deterioration of air quality permit and review process under this chapter is not to be construed as requiring an inspection at individual plant units affected by an operational change to determine whether any of the units will consequently emit more of a pollutant, as opposed to a "bubble" concept, i.e., determination of whether net effect of all steps involved in the change is to increase emission of any air pollutant. Alabama Power Co. v. Costle, C.A.D.C.1979, 636 F.2d 323, 204 U.S.App.D.C. 51. Environmental Law 264

Oil company refinery's operation of several furnaces, heaters and steam generators which were fired in part by liquid fuel and in part by process gas, without removal of hydrogen sulfide, was "modification" of facilities within meaning of federal regulations requiring approval of Administrator of Environmental Protection Agency for purposes of determining whether oil company was liable for civil penalties for emission of excess sulfur dioxide. U.S. v. Chevron U.S.A., Inc., W.D.Tex.1985, 639 F.Supp. 770. Environmental Law 296; Environmental Law 280

16. Considerations governing adoption of standards--Generally

Environmental Protection Agency (EPA) considered effects of New Source Performance Standards (NSPS) under CAA on older kilns, where EPA demonstrated how all regulated kilns could meet NSPS standards; although it would be more difficult for older kilns to meet final emissions limits, EPA ultimately determined that older kilns could avoid increasing their nitrogen oxide emissions, and thus remain in compliance with NSPS standards, by utilizing variety of different controls. Portland Cement Ass'n v. E.P.A., C.A.D.C.2011, 2011 WL 6118574. Environmental Law 270

Because Clean Air Act section requiring Environmental Protection Agency (EPA) to establish performance standards for emission of nitrogen oxides from newly constructed boilers does not set forth the weight that be should assigned to each of specified factors, agency has great degree of discretion in balancing them; EPA's

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choice will be sustained unless the environmental or economic costs of using the technology are exorbitant. Lignite Energy Council v. U.S. E.P.A., C.A.D.C.1999, 198 F.3d 930, 339 U.S.App.D.C. 183. Environmental Law 281

Agency should not be required to withhold promulgation of proposed new source performance standards for lime-manufacturing plants while it considered development of newly authorized and severable aspects of those standards, and court of appeals considered requirement of "percentage reduction" for fossil fuel-fired sources one such severable aspect, but, with respect to aspects of 1977 amendments of this chapter which may operate at cross-purposes or in fact inconsistently with prior law, Agency's standards should reflect new law, and new requirements that standards be achievable by emission reduction system which was "technological" and "continous" were two such aspects to which Agency ought to have given some consideration before standard was finally promulgated. National Lime Ass'n v. Environmental Protection Agency, C.A.D.C.1980, 627 F.2d 416, 200 U.S.App.D.C. 363. Environmental Law 271

17. ---- Alternative solutions, considerations governing adoption of standards

Power company could not utilize lower sulfur coal instead of implementing pollution control technologies to prevent increase in emissions, and thus prevent application of "new source performance standards" under Clean Air Act. Wisconsin Elec. Power Co. v. Reilly, C.A.7 1990, 893 F.2d 901, rehearing denied. Environmental Law 280

In adopting new source performance standards governing emission control by coal burning power plants, Agency is authorized to balance long-term national and regional impacts of alternative standards. Sierra Club v. Costle, C.A.D.C.1981, 657 F.2d 298, 211 U.S.App.D.C. 336. Environmental Law 269

Administrator, in promulgating stationary source emission standards for portland cement plants, satisfactorily considered cement manufacturers' suggested alternative of dispersing pollutants into the air rather than into water. Portland Cement Ass'n v. Train, C.A.D.C.1975, 513 F.2d 506, 168 U.S.App.D.C. 248, certiorari denied 96 S.Ct. 469, 423 U.S. 1025, 46 L.Ed.2d 399, rehearing denied 96 S.Ct. 889, 423 U.S. 1092, 47 L.Ed.2d 104. Environmental Law 270

18. ---- Cost-benefit analysis, considerations governing adoption of standards

In view of fact that industrial plant's stacks were equipped with electrostatic precipitators designed to trap virtually all particulates before they were released, and of fact that plants were required to comply with New York's particulate regulations which were in fact more stringent than Connecticut's, minimal impacts would not prevent Connecticut's attainment of national ambient air quality standards for total suspended particulates. State of Conn. v. E.P.A., C.A.2 (Conn.) 1982, 696 F.2d 147. Environmental Law 277

Question of whether noncomplying polluter may continue operations without change if such change is not technologically or economically feasible may be raised in enforcement proceeding instituted by Agency under this chapter. Union Elec. Co. v. Environmental Protection Agency, C.A.8 (Mo.) 1979, 593 F.2d 299, certiorari

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denied 100 S.Ct. 76, 444 U.S. 839, 62 L.Ed.2d 50. Environmental Law 267

Qualified cost-benefit analysis, showing benefit to ambient air conditions as measured against the cost of pollution devices, although desirable, was not required by this chapter as a condition for the promulgation by the Agency of stationary source standards for new or modified portland cement plants. Portland Cement Ass'n v. Ruckelshaus, C.A.D.C.1973, 486 F.2d 375, 158 U.S.App.D.C. 308, certiorari denied 94 S.Ct. 2628, 417 U.S. 921, 41 L.Ed.2d 226. Environmental Law 301

19. ---- Environmental impact, considerations governing adoption of standards

In adopting new source performance standards governing emission control by coal burning power plants, it was sensible for Agency to assess likely impacts of such standards in the year 1995 as opposed to an earlier time. Sierra Club v. Costle, C.A.D.C.1981, 657 F.2d 298, 211 U.S.App.D.C. 336. Environmental Law 269

No impact statement under National Environmental Policy Act, § 4321 et seq. of this title, need be filed by Administrator in setting standards of performance for new or modified stationary sources of pollution. Essex Chemical Corp. v. Ruckelshaus, C.A.D.C.1973, 486 F.2d 427, 158 U.S.App.D.C. 360, certiorari denied 94 S.Ct. 1991, 416 U.S. 969, 40 L.Ed.2d 558. Environmental Law 595(1)

20. ---- Opacity, considerations governing adoption of standards

Plume opacity was not too unreliable to be used by the Administrator in respect to the promulgation of stationary source standards, as a measure of pollution or as an aid in controlling emissions by portland cement plants. Portland Cement Ass'n v. Train, C.A.D.C.1975, 513 F.2d 506, 168 U.S.App.D.C. 248, certiorari denied 96 S.Ct. 469, 423 U.S. 1025, 46 L.Ed.2d 399, rehearing denied 96 S.Ct. 889, 423 U.S. 1092, 47 L.Ed.2d 104. Environmental Law 270

If opacity test was to be a standard for stationary source standards in new or modified portland cement plants and if violations could result in enforcement actions without further testing, the standard would be required to be consistent with this chapter and congressional intent. Portland Cement Ass'n v. Ruckelshaus, C.A.D.C.1973, 486 F.2d 375, 158 U.S.App.D.C. 308, certiorari denied 94 S.Ct. 2628, 417 U.S. 921, 41 L.Ed.2d 226. Environmental Law 277

21. ---- Technological innovation, considerations governing adoption of standards

Decision of Environmental Protection Agency (EPA) to focus primarily, but not exclusively, on preheater or precalciner kilns in Portland cement industry was not arbitrary or capricious, when promulgating New Source Performance Standards (NSPS) under CAA, given universal movement towards adoption of preheater or precalciner technology. Portland Cement Ass'n v. E.P.A., C.A.D.C.2011, 2011 WL 6118574. Environmental Law 270

In adopting new source performance standards governing emission control by coal burning power plants, man-

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dated balancing under subsec. (a)(1)(C) of this section of cost, energy, and nonair quality health and environmental factors embraces consideration of technological innovation as part of that balance. Sierra Club v. Costle, C.A.D.C.1981, 657 F.2d 298, 211 U.S.App.D.C. 336. Environmental Law 269

22. Notice and comment

Error by Environmental Protection Agency (EPA) in not giving adequate notice that it might adopt continuously-monitored standard (CEMS) requirement under New Source Performance Standards (NSPS) was harmless, since proposed National Emission Standards for Hazardous Air Pollutants (NESHAP) had put Portland cement manufacturers on notice that EPA might require kilns to install CEMS systems, manufacturers did comment on potential for required CEMS system, and repeating comments that they made in response to proposed NESHAP rulemaking would not have resulted in substantial likelihood that NSPS standards would have significantly changed. Portland Cement Ass'n v. E.P.A., C.A.D.C.2011, 2011 WL 6118574. Environmental Law 690

Environmental Protection Agency's final rule, which required use of new source performance standards as emission level during good engineering practice fluid modeling demonstrations for above-formula stacks, unless standards were infeasible, was "logical outgrowth" of initial proposal, and, thus, final rule did not deprive industry petitioners of opportunity to comment, even though it was promulgated less than two weeks after Agency informed petitioners of decision to adopt change. Natural Resources Defense Council, Inc. v. Thomas, C.A.D.C.1988, 838 F.2d 1224, 267 U.S.App.D.C. 274, certiorari denied 109 S.Ct. 219, 488 U.S. 888, 102 L.Ed.2d 210, certiorari denied 109 S.Ct. 250, 488 U.S. 901, 102 L.Ed.2d 238. Administrative Law And Procedure 395; Environmental Law 292

When viewed in light of material contained in Agency's own support statement that particle size was variable in emissions control, and in light of background documents on which Agency relied, limestone industry's comments concerning regional variations in particle size met "threshold requirement of materiality" that mandated that Agency consider such variable in determining new source performance standards for lime-manufacturing plants, but Agency failed to do so. National Lime Ass'n v. Environmental Protection Agency, C.A.D.C.1980, 627 F.2d 416, 200 U.S.App.D.C. 363. Environmental Law 277

Designation of industry as significant contributor to air pollution under this chapter is integral and pivotal part of rule-making procedure under this chapter and thus interested persons must be afforded meaningful opportunity to comment on such designation, including being made aware of information Agency finally decides to rely on in taking Agency action; however, Agency may continue to have one informal rule-making proceeding as long as that proceeding considers both "significant contributor" designation and proposed standards for sources within that category. National Asphalt Pavement Ass'n v. Train, C.A.D.C.1976, 539 F.2d 775, 176 U.S.App.D.C. 296. Environmental Law 291; Environmental Law 292

In order that rule-making proceedings to determine standards be conducted in orderly fashion, information should generally be disclosed as the basis of a proposed rule at the time of its issuance and if this is not feasible, as in case of statutory time constraints, information that is material to the subject should be disclosed if it becomes available, and comments received, even though subsequent to the issuance of the rule and with court au-

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thorization, where necessary. Portland Cement Ass'n v. Ruckelshaus, C.A.D.C.1973, 486 F.2d 375, 158 U.S.App.D.C. 308, certiorari denied 94 S.Ct. 2628, 417 U.S. 921, 41 L.Ed.2d 226. Administrative Law And Procedure 392.1

For purposes of fair notice doctrine, which prevents deference shown to agency interpretations from validating the application of a regulation that fails to give fair warning of the conduct it prohibits or requires, electric power company had fair notice that Environmental Protection Agency (EPA) interpreted regulation, exempting "routine maintenance, repair or replacement" activities from compliance with requirements of new source review program (NSRP) of Clean Air Act (CAA) narrowly, and not expansively; plain language of CAA and regulation made it clear that exemption was narrow, and courts had interpreted regulation narrowly. U.S. v. Ohio Edison Co., S.D.Ohio 2003, 276 F.Supp.2d 829. Environmental Law 683

23. Modeling as basis of standards

For Agency to be justified in using econometric model, there must be a rational connection between factual inputs, modeling assumptions, modeling results and conclusions drawn from these results. Sierra Club v. Costle, C.A.D.C.1981, 657 F.2d 298, 211 U.S.App.D.C. 336. Environmental Law 259

24. Test results as basis of standards

It was incumbent upon Agency, at least where it chose to propose new source performance standards for lime-manufacturing plants on limited data base, to offer some supportable reason for its conclusion that a tested plant, chosen as likely to be well controlled, did not represent best technology, and mere fact that its test results were unsatisfactory was not enough. National Lime Ass'n v. Environmental Protection Agency, C.A.D.C.1980, 627 F.2d 416, 200 U.S.App.D.C. 363. Environmental Law 271

25. Exemptions from standards

The Agency did not act improperly in excluding fugitive emissions from coverage by regulations setting air pollution control standards for basic oxygen process furnaces used in the production of steel, instead choosing a separate rule-making proceeding as process for proposing revised standard to broaden regulations to control fugitive emissions. Group Against Smog and Pollution, Inc. v. U. S. Environmental Protection Agency, C.A.D.C.1981, 665 F.2d 1284, 214 U.S.App.D.C. 466. Environmental Law 278

It was not plainly erroneous for Agency, in making its exemption determination, to focus on power of plaintiff's boiler as "affected facility" for which a "contractual obligation" had to exist prior to publication of irrelevant new source performance standard. Potomac Elec. Power Co. v. E.P.A., C.A.4 1981, 650 F.2d 509, certiorari denied 102 S.Ct. 1709, 455 U.S. 1016, 72 L.Ed.2d 133. Environmental Law 274

Agency did not abuse its discretion in interpreting its regulations to require actual physical construction or a binding construction contract for second unit of power plant, independent of first unit, prior to Sept. 19, 1978, in order for power companies to qualify for exemption to stringent antipollution regulations promulgated by Agency in 1978, nor did Agency abuse its discretion in refusing to consider planning and design activity or in

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concluding that power companies did not qualify for exemption with respect to second unit. Sierra Pacific Power Co. v. U.S. E.P.A., C.A.9 1981, 647 F.2d 60. Environmental Law 274

26. Force and effect of standards

New source performance standards governing emission control by coal burning power plants is a national standard with long-term effects. Sierra Club v. Costle, C.A.D.C.1981, 657 F.2d 298, 211 U.S.App.D.C. 336. Environmental Law 269

27. Applicability of standards

Agency properly considered second unit boiler facility of power plant by itself in determining whether construction had commenced for purpose of determining whether to apply stringent antipollution regulations promulgated by Agency in 1978 to the second unit, and Agency properly disregarded progress of construction on first unit or on facilities that would be shared by both units. Sierra Pacific Power Co. v. U.S. E.P.A., C.A.9 1981, 647 F.2d 60. Environmental Law 269

Renovation of existing asphalt concrete facility to replace filter bag house with electrostatic precipitator did not constitute "modification" of facility so as to invoke application of new source performance standards, where renovation not only did not increase amount or type of particulate matter emissions, but probably resulted in net decrease in particulate emission rate. U.S. v. Narragansett Imp. Co., D.C.R.I.1983, 571 F.Supp. 688. Environmental Law 277

28. Reasonableness of standards

Environmental Protection Agency (EPA) acted lawfully in resetting Clean Air Act (CAA) maximum achievable control technology (MACT) floors for hospital/medical/infectious waste incinerators (HMIWI) based on post-compliance emissions data, after the court had remanded an earlier case petitioning for review of the original MACT standards for further explanation, where in its previous decision, the court withheld vacatur for the purpose of allowing the EPA an opportunity to establish the reasonableness of its then-current regulations, and the agency subsequently determined that it was unable to provide a rational explanation for continued use of the data upon which it had relied. Medical Waste Institute and Energy Recovery Council v. E.P.A., C.A.D.C.2011, 645 F.3d 420. Environmental Law 293

The Agency is not empowered to force a state to adopt measures for air control needed during the 1975-1977 period merely because they are available, but only if they are also reasonable. State of Tex. v. Environmental Protection Agency, C.A.5 (Tex.) 1974, 499 F.2d 289, stay denied 95 S.Ct. 1672, 421 U.S. 945, 44 L.Ed.2d 98, certiorari denied 96 S.Ct. 3191, 427 U.S. 905, 49 L.Ed.2d 1199. Environmental Law 258

Variant provisions, to be applied when stationary source of pollution is experiencing startup, shutdown or mechanical malfunctions through no fault of manufacturer, were necessary to preserve reasonableness of standards set by Administrator for sulfuric acid plants and coal-fired steam generators as a whole; record did not support "never to be exceeded" standard currently in force. Essex Chemical Corp. v. Ruckelshaus, C.A.D.C.1973, 486

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F.2d 427, 158 U.S.App.D.C. 360, certiorari denied 94 S.Ct. 1991, 416 U.S. 969, 40 L.Ed.2d 558. Environmental Law 271; Environmental Law 269

Regulation promulgated in 1976 prohibiting discharge of vinyl chloride into atmosphere except under emergency conditions was enforceable "emission standard" rather than unenforceable "work practice standard" where regulation set quantitative limitation on emissions of zero without requiring specific work practices. U.S. v. B.F. Goodrich Co., W.D.Ky.1984, 609 F.Supp. 1. Environmental Law 276

29. Uniformity of standards

Decision of Environmental Protection Agency (EPA) to issue uniform standards for all utility boilers, rather than adhering to its past practice of setting a range of standards based on boiler and fuel type, in establishing performance standards for emission of nitrogen oxides from newly constructed boilers, was not arbitrary and capricious; EPA designated selective catalytic reduction (SCR) as best demonstrated system, and effectiveness of SCR was less dependent upon boiler design or fuel type than technologies on which prior standards were based. Lignite Energy Council v. U.S. E.P.A., C.A.D.C.1999, 198 F.3d 930, 339 U.S.App.D.C. 183. Environmental Law 281

There is no requirement in this chapter of uniformity of specific standards for all industries. Portland Cement Ass'n v. Ruckelshaus, C.A.D.C.1973, 486 F.2d 375, 158 U.S.App.D.C. 308, certiorari denied 94 S.Ct. 2628, 417 U.S. 921, 41 L.Ed.2d 226. Environmental Law 254

In rate cases in which purpose of law is to create equal rights for all, uniformity is a must; however, lack of uniformity is not destructive of principles upon which clean air acts rest inasmuch as such acts recognize that there could not be uniform treatment of all pollution sources. U. S. v. Atlantic-Richfield Co., D.C.Mont.1979, 478 F.Supp. 1215. Environmental Law 244

30. Validity of standards

Under new source pollution standards for stationary air pollution sources as effective Aug. 17, 1971 the Agency exceeded its statutory authority in applying an emission limitation based on fossil fuel, rather than total heat, input to petitioner's boilers, which were fueled with waste heat thrown off by gas turbine exhaust and burning of fossil fuel, as manner in which it applied the emission limitations, in effect, required use of low sulfur fuel in violation of then existing law whereby performance standards could be established only in form of the emission limitations based on output and not in form of practice or operation requirements. PPG Industries, Inc. v. Harrison, C.A.5 1981, 660 F.2d 628. Environmental Law 280

Stationary source emission standards promulgated by the Administrator under this chapter for new or modified portland cement plants were valid. Portland Cement Ass'n v. Train, C.A.D.C.1975, 513 F.2d 506, 168 U.S.App.D.C. 248, certiorari denied 96 S.Ct. 469, 423 U.S. 1025, 46 L.Ed.2d 399, rehearing denied 96 S.Ct. 889, 423 U.S. 1092, 47 L.Ed.2d 104. Environmental Law 270

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31. Variable or flexible standards

Combination of stringency and flexibility afforded by variable new source performance standards governing emission control by coal burning power plants satisfied stated purpose of this section to free low sulfur coal for use in existing plants. Sierra Club v. Costle, C.A.D.C.1981, 657 F.2d 298, 211 U.S.App.D.C. 336. Environmental Law 280

Agency had expressly built some flexibility into enforcement end of its new source performance standards for lime-manufacturing plants, relating to startup, shutdown, and malfunction, and was vested with more general enforcement discretion, but flexibility appropriate to enforcement would not render "achievable" standards which could not be achieved on regular basis, either for reasons expressly taken into account in compliance determination regulations, here startup, shutdown and malfunction, or otherwise. National Lime Ass'n v. Environmental Protection Agency, C.A.D.C.1980, 627 F.2d 416, 200 U.S.App.D.C. 363. Environmental Law 271

32. Waiver of standards

This section permits a company to apply for an innovative technology waiver of new source performance standards after putting into operation the new source for which the waiver is sought, consisting of any facility, constructed after publication of the performance standard applicable to such source, that emits or may emit any air pollutant. Central Illinois Public Service Co. v. U.S. E.P.A., C.A.7 1979, 594 F.2d 636. Environmental Law 254

33. State implementation and enforcement of standards

If standards for new sources are promulgated by Agency, state is required to adopt emission standards for existing sources and to provide for implementation and enforcement of such standards. U. S. v. Atlantic-Richfield Co., D.C.Mont.1979, 478 F.Supp. 1215. Environmental Law 259; Environmental Law 258

There is no judicial remedy provided in this chapter or elsewhere for failure of state to adopt and submit air quality implementation plan, and only consequence of state's failure to submit plan is that Administrator has duty to impose plan on state. Plan For Arcadia, Inc. v. Anita Associates, C.D.Cal.1973, 379 F.Supp. 311, affirmed 501 F.2d 390, certiorari denied 95 S.Ct. 517, 419 U.S. 1034, 42 L.Ed.2d 309. Environmental Law 695

34. Change in administrative interpretations

Agency is free to make reasonable changes in the interpretation of its regulations and in the application of the regulations to specific cases. Montana Power Co. v. Environmental Protection Agency, C.A.9 (Mont.) 1979, 608 F.2d 334. Environmental Law 16

35. Reasonableness of administrative interpretations

Agency's interpretation of its regulatory definition of "construction" was plainly erroneous and only reasonable

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interpretation of definition of "construction" would be one that covered "construction" of those structures and facilities that were essential to eventual "erection" and "installation" of an "affected facility" for which a contractual obligation has to exist prior to publication of relevant new source performance standards promulgated under this chapter. Potomac Elec. Power Co. v. E.P.A., C.A.4 1981, 650 F.2d 509, certiorari denied 102 S.Ct. 1709, 455 U.S. 1016, 72 L.Ed.2d 133. Environmental Law 274

36. Weight and conclusiveness of administrative interpretations

Even though memoranda of the Agency's Assistant Administrator for Air and Waste Management were merely intraagency, nonpublic guidelines, they were not to be given any less than normal deference as long as they were a reasonable interpretation of the PSD (prevention of significant deterioration of air quality) regulations of the Agency. Montana Power Co. v. Environmental Protection Agency, C.A.9 (Mont.) 1979, 608 F.2d 334. Environmental Law 683

Administrative decisions pursuant to air quality control regulations regarding construction of stationary sources have the force of law unless there is an abuse of discretion in approving a stationary source whose presence would prevent or interfere with the attainment of any applicable local or national air standard. Metropolitan Washington Coalition For Clean Air v. Department of Economic Development, D.C.D.C.1973, 373 F.Supp. 1096. Environmental Law 268

37. Arbitrary or capricious administrative actions

For purposes of determining applicability of "new source performance standards" under Clean Air Act to renovated electric power plant, Environmental Protection Agency's (EPA's) refusal to compare representative prerenovation emissions with actual postrenovation emissions was not contrary to EPA's regulations. Wisconsin Elec. Power Co. v. Reilly, C.A.7 1990, 893 F.2d 901, rehearing denied.

Environmental Protection Agency's calculation of actual historical amount of pollutants that cement kilns emitted in the past, and comparison of that amount with amount that converted kiln would be capable of emitting in the future for purpose of determining if cement company's proposed modification of kilns would increase amount of any air pollutant emitted, represented proper agency interpretation of its own regulations that also was not arbitrary or contradictory. Puerto Rican Cement Co., Inc. v. U.S.E.P.A., C.A.1 1989, 889 F.2d 292. Environmental Law 270

Decision of Regional Administrator of the Agency that boiler at the Potomac Electric Power Company's chalk point unit No. 4 electric generating system was subject to new source performance standards promulgated by the Agency for fossil fuel-fire steam generating units under this chapter was not arbitrary, capricious or an abuse of discretion. Potomac Elec. Power Co. v. E.P.A., C.A.4 1981, 650 F.2d 509, certiorari denied 102 S.Ct. 1709, 455 U.S. 1016, 72 L.Ed.2d 133. Environmental Law 274

Evidence established that decision of Administrator, who specifically noted that one factor he considered was rate of uncontrolled emissions and who also stated that he was aware of and took into account stringency of ex-

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isting local and state limitations on emissions from asphalt concrete plant, that construction of new plants subject only to current emission limitations would "significantly contribute" to future air pollution problems within meaning of this section was not arbitrary and capricious. National Asphalt Pavement Ass'n v. Train, C.A.D.C.1976, 539 F.2d 775, 176 U.S.App.D.C. 296. Environmental Law 270

Agency's approval of confidentiality provision in Arizona implementation plan, A.R.S. § 36-1708[D], enacted pursuant to this chapter was not arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. Natural Resources Defense Council, Inc. v. U.S. E.P.A., C.A.9 1974, 507 F.2d 905. Environmental Law 261

38. Presumptions

In adopting new source performance standards governing emission control by coal burning power plants, Agency did not make a clear error of judgment in adopting assumption about utility preferences. Sierra Club v. Costle, C.A.D.C.1981, 657 F.2d 298, 211 U.S.App.D.C. 336. Environmental Law 269

A systematic approach by Agency in determining new source performance standards may not necessarily require conclusion grounded in actual test results, as court of appeals did not intend to bridle Agency's discretion to make well-founded assumptions even where assumptions could be replaced by valid test results, but assumptions should be stated and, where test data could have verified assumptions, a reason for not testing or relying on such data should be given. National Lime Ass'n v. Environmental Protection Agency, C.A.D.C.1980, 627 F.2d 416, 200 U.S.App.D.C. 363. Environmental Law 258

39. Burden of proof

Locus of administrative burdens of going forward or of persuasion may shift in course of rule-making proceeding, but initial burden of promulgating and explaining a nonarbitrary, noncapricious rule rested with Agency, and by failing to explain how its new source performance standards for lime-manufacturing plants were achievable under range of relevant conditions which may affect emissions to be regulated, Agency had not satisfied initial burden. National Lime Ass'n v. Environmental Protection Agency, C.A.D.C.1980, 627 F.2d 416, 200 U.S.App.D.C. 363. Environmental Law 300

40. Weight and sufficiency of evidence

Record evidence established that with but one exception coal-fired steam generator standards promulgated by Administrator for particulate matter, sulfur dioxide, and nitrogen oxides were result of reasoned decision making. Essex Chemical Corp. v. Ruckelshaus, C.A.D.C.1973, 486 F.2d 427, 158 U.S.App.D.C. 360, certiorari denied 94 S.Ct. 1991, 416 U.S. 969, 40 L.Ed.2d 558. Environmental Law 301

41. Scope of review

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Search for reasoned decision making in world of technical expertise had to continue if judicial review was to have any meaning in statutory scheme governing new source performance standards issued by Agency applicable under this section. National Lime Ass'n v. Environmental Protection Agency, C.A.D.C.1980, 627 F.2d 416, 200 U.S.App.D.C. 363. Environmental Law 683

42. Standard of review

A court reviewing an Agency action must consider whether the decision was based on a consideration of the relevant factors, and the inquiry into the facts is to be searching and careful; but the ultimate standard of review is a narrow one and the objective of the inquiry is to determine whether there has been a clear error of judgment by the Agency. Montana Power Co. v. Environmental Protection Agency, C.A.9 (Mont.) 1979, 608 F.2d 334. Administrative Law And Procedure 751; Administrative Law And Procedure 760

Standard of review of actions of Administrator in setting standards of performance under this section is appropriately deferential one, and court of appeals is to affirm action of Administrator unless action is arbitrary, capricious, abuse of discretion, or otherwise not in accordance with law. National Asphalt Pavement Ass'n v. Train, C.A.D.C.1976, 539 F.2d 775, 176 U.S.App.D.C. 296. Environmental Law 683

Proper standard of review in appraising Agency's sanction of confidentiality provision in state implementation plan, A.R.S. § 36-1708[D], adopted pursuant to this chapter is whether the Agency's determination was arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law. Natural Resources Defense Council, Inc. v. U.S. E.P.A., C.A.9 1974, 507 F.2d 905. Environmental Law 683

In subjecting actions of Administrator to judicial review, the court of appeals will apply a test of reasonableness, wherein the court is not empowered to substitute its judgment for that of the agency but must consider whether the decision was based on a consideration of relevant factors and whether there has been a clear error of judgment. Essex Chemical Corp. v. Ruckelshaus, C.A.D.C.1973, 486 F.2d 427, 158 U.S.App.D.C. 360, certiorari denied 94 S.Ct. 1991, 416 U.S. 969, 40 L.Ed.2d 558. Environmental Law 678

43. Remand to Agency or Administrator

Environmental Protection Agency (EPA) did not adequately explain why ban on lead-acid vehicle battery combustion did not represent the best demonstrated technology for reducing harmful incinerator emissions, and rule thus had to be remanded to agency. State of N.Y. v. Reilly, C.A.D.C.1992, 969 F.2d 1147, 297 U.S.App.D.C. 147. Administrative Law And Procedure 817.1; Environmental Law 272; Environmental Law 698; Environmental Law 293

Remand of another case for further consideration by Agency of adverse environmental effects that might result from requiring 1.2 lbs./mBtu standard for coal-fired steam generator plant that had to use “lime slurry scrubbing system” in order to achieve sulfur dioxide standard did not retroactively void obligation of city to insure that boiler complied with the 1.2 lbs./mBtu “new source” performance standard for sulfur dioxide that was in effect when government brought action against city. U. S. v. City of Painesville, Ohio, C.A.6 (Ohio) 1981, 644 F.2d

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1186, certiorari denied 102 S.Ct. 392, 454 U.S. 894, 70 L.Ed.2d 209, rehearing denied 102 S.Ct. 619, 454 U.S. 1069, 70 L.Ed.2d 604. Environmental Law 280

There was inadequate support in administrative record with respect to "achievability" of Agency's new source performance standards for lime-manufacturing plants, which limited mass of particulate that could be emitted in exhaust gas from all lime-hydrating and from certain lime-manufacturing facilities and limited permitted visibility of exhaust gas emissions from some facilities, manufacturing lime, given Agency's failure to consider representativeness along various relevant perimeters of data relied upon, and thus case had to be remanded to Agency's Administrator for more adequate explanation, or, if necessary, for supplementary data to justify standards in terms of "representativeness" of sources tested. National Lime Ass'n v. Environmental Protection Agency, C.A.D.C.1980, 627 F.2d 416, 200 U.S.App.D.C. 363. Environmental Law 698

Where petitioners, which suggested that remand was necessary for legislative-type hearing on designation of asphalt concrete industry as "significant contributor" to air pollution within meaning of this section, failed to make proffer of specific issues and witnesses that allegedly could not be explored without hybrid rule-making procedures, there was no error in failure of Administrator to hold public hearing on "significant contributor" designation and proposed standards of performance for sources within that category under this chapter. National Asphalt Pavement Ass'n v. Train, C.A.D.C.1976, 539 F.2d 775, 176 U.S.App.D.C. 296. Environmental Law 293

Administrator, in respect to the promulgation of stationary source emission standards for portland cement plants, adequately responded to the court of appeals' remand mandate to identify the bases for standards. Portland Cement Ass'n v. Train, C.A.D.C.1975, 513 F.2d 506, 168 U.S.App.D.C. 248, certiorari denied 96 S.Ct. 469, 423 U.S. 1025, 46 L.Ed.2d 399, rehearing denied 96 S.Ct. 889, 423 U.S. 1092, 47 L.Ed.2d 104. Environmental Law 293

Record would be remanded for additional consideration and explanation by Administrator regarding reasonableness of opacity standards for sulfuric acid plants and coal-fired steam generators. Essex Chemical Corp. v. Ruckelshaus, C.A.D.C.1973, 486 F.2d 427, 158 U.S.App.D.C. 360, certiorari denied 94 S.Ct. 1991, 416 U.S. 969, 40 L.Ed.2d 558. Environmental Law 698

Critical defect in the decision-making process in Agency promulgation of statutory source standard for new or modified portland cement plants in failing to make available to the manufacturers in timely fashion the test results and procedures used on existing plants which formed partial basis for the emission control level adopted, in failure to clearly identify the basis for the standards promulgated and in failure to respond adequately to the comments and technical objections of the cement manufacturers required that the matter remanded to the agency for further review. Portland Cement Ass'n v. Ruckelshaus, C.A.D.C.1973, 486 F.2d 375, 158 U.S.App.D.C. 308, certiorari denied 94 S.Ct. 2628, 417 U.S. 921, 41 L.Ed.2d 226. Environmental Law 698

44. Accrual of action

Utilities' alleged violations of new source performance standards (NSPS) under Clean Air Act by failing to notify Environmental Protection Agency (EPA) of new construction projects before they began and by failing to

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conduct performance test with regulatory time period or informing EPA of test results were not continuing in nature, and thus government's cause of action for violations accrued at time construction was completed. U.S. v. Illinois Power Co., S.D.Ill.2003, 245 F.Supp.2d 951. Environmental Law 671

42 U.S.C.A. § 7411, 42 USCA § 7411

Current through P.L. 112-174 (excluding P.L. 112-140, 112-141, and 112-166) approved 9-20-12.

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Effective: August 5, 1999

United States Code Annotated Currentness
Title 42. The Public Health and Welfare
Chapter 85. Air Pollution Prevention and Control (Refs & Annos)
Subchapter I. Programs and Activities
Part A. Air Quality and Emissions Limitations (Refs & Annos)
§ 7412. Hazardous air pollutants

(a) Definitions

For purposes of this section, except subsection (r) of this section--

(1) Major source

The term "major source" means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants. The Administrator may establish a lesser quantity, or in the case of radionuclides different criteria, for a major source than that specified in the previous sentence, on the basis of the potency of the air pollutant, persistence, potential for bioaccumulation, other characteristics of the air pollutant, or other relevant factors.

(2) Area source

The term "area source" means any stationary source of hazardous air pollutants that is not a major source. For purposes of this section, the term "area source" shall not include motor vehicles or nonroad vehicles subject to regulation under subchapter II of this chapter.

(3) Stationary source

The term "stationary source" shall have the same meaning as such term has under section 7411(a) of this title.

(4) New source

The term "new source" means a stationary source the construction or reconstruction of which is commenced after the Administrator first proposes regulations under this section establishing an emission standard applicable to such source.

(5) Modification

The term "modification" means any physical change in, or change in the method of operation of, a major source which increases the actual emissions of any hazardous air pollutant emitted by such source by more than a de minimis amount or which results in the emission of any hazardous air pollutant not previously emitted by more than a de minimis amount.

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(6) Hazardous air pollutant

The term "hazardous air pollutant" means any air pollutant listed pursuant to subsection (b) of this section.

(7) Adverse environmental effect

The term "adverse environmental effect" means any significant and widespread adverse effect, which may reasonably be anticipated, to wildlife, aquatic life, or other natural resources, including adverse impacts on populations of endangered or threatened species or significant degradation of environmental quality over broad areas.

(8) Electric utility steam generating unit

The term "electric utility steam generating unit" means any fossil fuel fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 megawatts electrical output to any utility power distribution system for sale shall be considered an electric utility steam generating unit.

(9) Owner or operator

The term "owner or operator" means any person who owns, leases, operates, controls, or supervises a stationary source.

(10) Existing source

The term "existing source" means any stationary source other than a new source.

(11) Carcinogenic effect

Unless revised, the term "carcinogenic effect" shall have the meaning provided by the Administrator under Guidelines for Carcinogenic Risk Assessment as of the date of enactment. Any revisions in the existing Guidelines shall be subject to notice and opportunity for comment.

(b) List of pollutants

(1) Initial list

The Congress establishes for purposes of this section a list of hazardous air pollutants as follows:

CAS number	Chemical name
75070	Acetaldehyde
60355	Acetamide
75058	Acetonitrile
98862	Acetophenone
53963	2-Acetylaminofluorene
107028	Acrolein

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79061 Acrylamide
79107 Acrylic acid
107131 Acrylonitrile
107051 Allyl chloride
92671 4-Aminobiphenyl
62533 Aniline
90040 o-Anisidine
1332214 Asbestos
71432 Benzene (including benzene from gasoline)
92875 Benzidine
98077 Benzotrichloride
100447 Benzyl chloride
92524 Biphenyl
117817 Bis(2-ethylhexyl)phthalate (DEHP)
542881 Bis(chloromethyl)ether
75252 Bromoform
106990 1,3-Butadiene
156627 Calcium cyanamide
105602 Caprolactam
133062 Captan
63252 Carbaryl
75150 Carbon disulfide
56235 Carbon tetrachloride
463581 Carbonyl sulfide
120809 Catechol
133904 Chloramben
57749 Chlordane
7782505 Chlorine
79118 Chloroacetic acid
532274 2-Chloroacetophenone
108907 Chlorobenzene
510156 Chlorobenzilate
67663 Chloroform
107302 Chloromethyl methyl ether
126998 Chloroprene
1319773 Cresols/Cresylic acid (isomers and mixture)
95487 o-Cresol

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108394 m-Cresol
106445 p-Cresol
98828 Cumene
94757 2,4-D, salts and esters
3547044 DDE
334883 Diazomethane
132649 Dibenzofurans
96128 1,2-Dibromo-3-chloropropane
84742 Dibutylphthalate
106467 1,4-Dichlorobenzene(p)
91941 3,3-Dichlorobenzidene
111444 Dichloroethyl ether (Bis(2-chloroethyl)ether)
542756 1,3-Dichloropropene
62737 Dichlorvos
111422 Diethanolamine
121697 N,N-Diethyl aniline (N,N-Dimethylaniline)
64675 Diethyl sulfate
119904 3,3-Dimethoxybenzidine
60117 Dimethyl aminoazobenzene
119937 3,3'-Dimethyl benzidine
79447 Dimethyl carbamoyl chloride
68122 Dimethyl formamide
57147 1,1-Dimethyl hydrazine
131113 Dimethyl phthalate
77781 Dimethyl sulfate
534521 4,6-Dinitro-o-cresol, and salts
51285 2,4-Dinitrophenol
121142 2,4-Dinitrotoluene
123911 1,4-Dioxane (1,4-Diethyleneoxide)
122667 1,2-Diphenylhydrazine
106898 Epichlorohydrin (1-Chloro-2,3-epoxypropane)
106887 1,2-Epoxybutane
140885 Ethyl acrylate
100414 Ethyl benzene
51796 Ethyl carbamate (Urethane)
75003 Ethyl chloride (Chloroethane)
106934 Ethylene dibromide (Dibromoethane)

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107062 Ethylene dichloride (1,2-Dichloroethane)
107211 Ethylene glycol
151564 Ethylene imine (Aziridine)
75218 Ethylene oxide
96457 Ethylene thiourea
75343 Ethylidene dichloride (1,1-Dichloroethane)
50000 Formaldehyde
76448 Heptachlor
118741 Hexachlorobenzene
87683 Hexachlorobutadiene
77474 Hexachlorocyclopentadiene
67721 Hexachloroethane
822060 Hexamethylene-1,6-diisocyanate
680319 Hexamethylphosphoramide
110543 Hexane
302012 Hydrazine
7647010 Hydrochloric acid
7664393 Hydrogen fluoride (Hydrofluoric acid)
123319 Hydroquinone
78591 Isophorone
58899 Lindane (all isomers)
108316 Maleic anhydride
67561 Methanol
72435 Methoxychlor
74839 Methyl bromide (Bromomethane)
74873 Methyl chloride (Chloromethane)
71556 Methyl chloroform (1,1,1-Trichloroethane)
78933 Methyl ethyl ketone (2-Butanone)
60344 Methyl hydrazine
74884 Methyl iodide (Iodomethane)
108101 Methyl isobutyl ketone (Hexone)
624839 Methyl isocyanate
80626 Methyl methacrylate
1634044 Methyl tert butyl ether
101144 4,4-Methylene bis(2-chloroaniline)
75092 Methylene chloride (Dichloromethane)
101688 Methylene diphenyl diisocyanate (MDI)

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101779 4,4'-Methylenedianiline
91203 Naphthalene
98953 Nitrobenzene
92933 4-Nitrobiphenyl
100027 4-Nitrophenol
79469 2-Nitropropane
684935 N-Nitroso-N-methylurea
62759 N-Nitrosodimethylamine
59892 N-Nitrosomorpholine
56382 Parathion
82688 Pentachloronitrobenzene (Quintobenzene)
87865 Pentachlorophenol
108952 Phenol
106503 p-Phenylenediamine
75445 Phosgene
7803512 Phosphine
7723140 Phosphorus
85449 Phthalic anhydride
1336363 Polychlorinated biphenyls (Aroclors)
1120714 1,3-Propane sultone
57578 beta-Propiolactone
123386 Propionaldehyde
114261 Propoxur (Baygon)
78875 Propylene dichloride (1,2-Dichloropropane)
75569 Propylene oxide
75558 1,2-Propylenimine (2-Methyl aziridine)
91225 Quinoline
106514 Quinone
100425 Styrene
96093 Styrene oxide
1746016 2,3,7,8-Tetrachlorodibenzo-p-dioxin
79345 1,1,2,2-Tetrachloroethane
127184 Tetrachloroethylene (Perchloroethylene)
7550450 Titanium tetrachloride
108883 Toluene
95807 2,4-Toluene diamine
584849 2,4-Toluene diisocyanate

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95534 o-Toluidine
8001352 Toxaphene (chlorinated camphene)
120821 1,2,4-Trichlorobenzene
79005 1,1,2-Trichloroethane
79016 Trichloroethylene
95954 2,4,5-Trichlorophenol
88062 2,4,6-Trichlorophenol
121448 Triethylamine
1582098 Trifluralin
540841 2,2,4-Trimethylpentane
108054 Vinyl acetate
593602 Vinyl bromide
75014 Vinyl chloride
75354 Vinylidene chloride (1,1-Dichloroethylene)
1330207 Xylenes (isomers and mixture)
95476 o-Xylenes
108383 m-Xylenes
106423 p-Xylenes
0 Antimony Compounds
0 Arsenic Compounds (inorganic including arsine)
0 Beryllium Compounds
0 Cadmium Compounds
0 Chromium Compounds
0 Cobalt Compounds
0 Coke Oven Emissions
0 Cyanide Compounds [FN1]
0 Glycol ethers [FN2]
0 Lead Compounds
0 Manganese Compounds
0 Mercury Compounds
0 Fine mineral fibers [FN3]
0 Nickel Compounds
0 Polycylic Organic Matter [FN4]
0 Radionuclides (including radon) [FN5]
0 Selenium Compounds

NOTE: For all listings above which contain the word “compounds” and for glycol ethers, the following applies: Unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chem-

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ical (i.e., antimony, arsenic, etc.) as part of that chemical's infrastructure.

[FN1] X'CN where X = H' or any other group where a formal dissociation may occur. For example KCN or $Ca(CN)_2$

[FN2] Includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol $R-(OCH_2CH_2)_n-OR'$ where

n = 1, 2, or 3

R = alkyl or aryl groups

R' = R, H, or groups which, when removed, yield glycol ethers with the structure: $R-(OCH_2CH)_n-OH$. Polymers are excluded from the glycol category.

[FN3] Includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.

[FN4] Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100°C.

[FN5] A type of atom which spontaneously undergoes radioactive decay.

(2) Revision of the list

The Administrator shall periodically review the list established by this subsection and publish the results thereof and, where appropriate, revise such list by rule, adding pollutants which present, or may present, through inhalation or other routes of exposure, a threat of adverse human health effects (including, but not limited to, substances which are known to be, or may reasonably be anticipated to be, carcinogenic, mutagenic, teratogenic, neurotoxic, which cause reproductive dysfunction, or which are acutely or chronically toxic) or adverse environmental effects whether through ambient concentrations, bioaccumulation, deposition, or otherwise, but not including releases subject to regulation under subsection (r) of this section as a result of emissions to the air. No air pollutant which is listed under section 7408(a) of this title may be added to the list under this section, except that the prohibition of this sentence shall not apply to any pollutant which independently meets the listing criteria of this paragraph and is a precursor to a pollutant which is listed under section 7408(a) of this title or to any pollutant which is in a class of pollutants listed under such section. No substance, practice, process or activity regulated under subchapter VI of this chapter shall be subject to regulation under this section solely due to its adverse effects on the environment.

(3) Petitions to modify the list

(A) Beginning at any time after 6 months after November 15, 1990, any person may petition the Administrator to modify the list of hazardous air pollutants under this subsection by adding or deleting a substance or, in case of listed pollutants without CAS numbers (other than coke oven emissions, mineral fibers, or polycyclic organic matter) removing certain unique substances. Within 18 months after receipt of a petition, the Administrator shall either grant or deny the petition by publishing a written explanation of the reasons for the Administrator's decision. Any such petition shall include a showing by the petitioner that there is adequate data on the health or environmental defects [FN1] of the pollutant or other evidence adequate to support the petition. The Administrator may not deny a petition solely on the basis of inadequate resources or time for review.

(B) The Administrator shall add a substance to the list upon a showing by the petitioner or on the Administrator's own determination that the substance is an air pollutant and that emissions, ambient concentrations, bioaccumulation or deposition of the substance are known to cause or may reasonably be anticipated to cause adverse effects to human health

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or adverse environmental effects.

(C) The Administrator shall delete a substance from the list upon a showing by the petitioner or on the Administrator's own determination that there is adequate data on the health and environmental effects of the substance to determine that emissions, ambient concentrations, bioaccumulation or deposition of the substance may not reasonably be anticipated to cause any adverse effects to the human health or adverse environmental effects.

(D) The Administrator shall delete one or more unique chemical substances that contain a listed hazardous air pollutant not having a CAS number (other than coke oven emissions, mineral fibers, or polycyclic organic matter) upon a showing by the petitioner or on the Administrator's own determination that such unique chemical substances that contain the named chemical of such listed hazardous air pollutant meet the deletion requirements of subparagraph (C). The Administrator must grant or deny a deletion petition prior to promulgating any emission standards pursuant to subsection (d) of this section applicable to any source category or subcategory of a listed hazardous air pollutant without a CAS number listed under subsection (b) of this section for which a deletion petition has been filed within 12 months of November 15, 1990.

(4) Further information

If the Administrator determines that information on the health or environmental effects of a substance is not sufficient to make a determination required by this subsection, the Administrator may use any authority available to the Administrator to acquire such information.

(5) Test methods

The Administrator may establish, by rule, test measures and other analytic procedures for monitoring and measuring emissions, ambient concentrations, deposition, and bioaccumulation of hazardous air pollutants.

(6) Prevention of significant deterioration

The provisions of part C of this subchapter (prevention of significant deterioration) shall not apply to pollutants listed under this section.

(7) Lead

The Administrator may not list elemental lead as a hazardous air pollutant under this subsection.

(c) List of source categories

(1) In general

Not later than 12 months after November 15, 1990, the Administrator shall publish, and shall from time to time, but no less often than every 8 years, revise, if appropriate, in response to public comment or new information, a list of all categories and subcategories of major sources and area sources (listed under paragraph (3)) of the air pollutants listed pur-

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suant to subsection (b) of this section. To the extent practicable, the categories and subcategories listed under this subsection shall be consistent with the list of source categories established pursuant to section 7411 of this title and part C of this subchapter. Nothing in the preceding sentence limits the Administrator's authority to establish subcategories under this section, as appropriate.

(2) Requirement for emissions standards

For the categories and subcategories the Administrator lists, the Administrator shall establish emissions standards under subsection (d) of this section, according to the schedule in this subsection and subsection (e) of this section.

(3) Area sources

The Administrator shall list under this subsection each category or subcategory of area sources which the Administrator finds presents a threat of adverse effects to human health or the environment (by such sources individually or in the aggregate) warranting regulation under this section. The Administrator shall, not later than 5 years after November 15, 1990, and pursuant to subsection (k)(3)(B) of this section, list, based on actual or estimated aggregate emissions of a listed pollutant or pollutants, sufficient categories or subcategories of area sources to ensure that area sources representing 90 percent of the area source emissions of the 30 hazardous air pollutants that present the greatest threat to public health in the largest number of urban areas are subject to regulation under this section. Such regulations shall be promulgated not later than 10 years after November 15, 1990.

(4) Previously regulated categories

The Administrator may, in the Administrator's discretion, list any category or subcategory of sources previously regulated under this section as in effect before November 15, 1990.

(5) Additional categories

In addition to those categories and subcategories of sources listed for regulation pursuant to paragraphs (1) and (3), the Administrator may at any time list additional categories and subcategories of sources of hazardous air pollutants according to the same criteria for listing applicable under such paragraphs. In the case of source categories and subcategories listed after publication of the initial list required under paragraph (1) or (3), emission standards under subsection (d) of this section for the category or subcategory shall be promulgated within 10 years after November 15, 1990, or within 2 years after the date on which such category or subcategory is listed, whichever is later.

(6) Specific pollutants

With respect to alkylated lead compounds, polycyclic organic matter, hexachlorobenzene, mercury, polychlorinated biphenyls, 2,3,7,8-tetrachlorodibenzofurans and 2,3,7,8-tetrachlorodibenzo-p-dioxin, the Administrator shall, not later than 5 years after November 15, 1990, list categories and subcategories of sources assuring that sources accounting for not less than 90 per centum of the aggregate emissions of each such pollutant are subject to standards under subsection (d)(2) or (d)(4) of this section. Such standards shall be promulgated not later than 10 years after November 15, 1990. This paragraph shall not be construed to require the Administrator to promulgate standards for such pollutants emitted by electric utility steam generating units.

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(7) Research facilities

The Administrator shall establish a separate category covering research or laboratory facilities, as necessary to assure the equitable treatment of such facilities. For purposes of this section, “research or laboratory facility” means any stationary source whose primary purpose is to conduct research and development into new processes and products, where such source is operated under the close supervision of technically trained personnel and is not engaged in the manufacture of products for commercial sale in commerce, except in a de minimis manner.

(8) Boat manufacturing

When establishing emissions standards for styrene, the Administrator shall list boat manufacturing as a separate subcategory unless the Administrator finds that such listing would be inconsistent with the goals and requirements of this chapter.

(9) Deletions from the list

(A) Where the sole reason for the inclusion of a source category on the list required under this subsection is the emission of a unique chemical substance, the Administrator shall delete the source category from the list if it is appropriate because of action taken under either subparagraphs (C) or (D) of subsection (b)(3) of this section.

(B) The Administrator may delete any source category from the list under this subsection, on petition of any person or on the Administrator's own motion, whenever the Administrator makes the following determination or determinations, as applicable:

(i) In the case of hazardous air pollutants emitted by sources in the category that may result in cancer in humans, a determination that no source in the category (or group of sources in the case of area sources) emits such hazardous air pollutants in quantities which may cause a lifetime risk of cancer greater than one in one million to the individual in the population who is most exposed to emissions of such pollutants from the source (or group of sources in the case of area sources).

(ii) In the case of hazardous air pollutants that may result in adverse health effects in humans other than cancer or adverse environmental effects, a determination that emissions from no source in the category or subcategory concerned (or group of sources in the case of area sources) exceed a level which is adequate to protect public health with an ample margin of safety and no adverse environmental effect will result from emissions from any source (or from a group of sources in the case of area sources).

The Administrator shall grant or deny a petition under this paragraph within 1 year after the petition is filed.

(d) Emission standards

(1) In general

The Administrator shall promulgate regulations establishing emission standards for each category or subcategory of

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major sources and area sources of hazardous air pollutants listed for regulation pursuant to subsection (c) of this section in accordance with the schedules provided in subsections (c) and (e) of this section. The Administrator may distinguish among classes, types, and sizes of sources within a category or subcategory in establishing such standards except that, there shall be no delay in the compliance date for any standard applicable to any source under subsection (i) of this section as the result of the authority provided by this sentence.

(2) Standards and methods

Emissions standards promulgated under this subsection and applicable to new or existing sources of hazardous air pollutants shall require the maximum degree of reduction in emissions of the hazardous air pollutants subject to this section (including a prohibition on such emissions, where achievable) that the Administrator, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable for new or existing sources in the category or subcategory to which such emission standard applies, through application of measures, processes, methods, systems or techniques including, but not limited to, measures which--

(A) reduce the volume of, or eliminate emissions of, such pollutants through process changes, substitution of materials or other modifications,

(B) enclose systems or processes to eliminate emissions,

(C) collect, capture or treat such pollutants when released from a process, stack, storage or fugitive emissions point,

(D) are design, equipment, work practice, or operational standards (including requirements for operator training or certification) as provided in subsection (h) of this section, or

(E) are a combination of the above.

None of the measures described in subparagraphs (A) through (D) shall, consistent with the provisions of section 7414(c) of this title, in any way compromise any United States patent or United States trademark right, or any confidential business information, or any trade secret or any other intellectual property right.

(3) New and existing sources

The maximum degree of reduction in emissions that is deemed achievable for new sources in a category or subcategory shall not be less stringent than the emission control that is achieved in practice by the best controlled similar source, as determined by the Administrator. Emission standards promulgated under this subsection for existing sources in a category or subcategory may be less stringent than standards for new sources in the same category or subcategory but shall not be less stringent, and may be more stringent than--

(A) the average emission limitation achieved by the best performing 12 percent of the existing sources (for which the

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Administrator has emissions information), excluding those sources that have, within 18 months before the emission standard is proposed or within 30 months before such standard is promulgated, whichever is later, first achieved a level of emission rate or emission reduction which complies, or would comply if the source is not subject to such standard, with the lowest achievable emission rate (as defined by section 7501 of this title) applicable to the source category and prevailing at the time, in the category or subcategory for categories and subcategories with 30 or more sources, or

(B) the average emission limitation achieved by the best performing 5 sources (for which the Administrator has or could reasonably obtain emissions information) in the category or subcategory for categories or subcategories with fewer than 30 sources.

(4) Health threshold

With respect to pollutants for which a health threshold has been established, the Administrator may consider such threshold level, with an ample margin of safety, when establishing emission standards under this subsection.

(5) Alternative standard for area sources

With respect only to categories and subcategories of area sources listed pursuant to subsection (c) of this section, the Administrator may, in lieu of the authorities provided in paragraph (2) and subsection (f) of this section, elect to promulgate standards or requirements applicable to sources in such categories or subcategories which provide for the use of generally available control technologies or management practices by such sources to reduce emissions of hazardous air pollutants.

(6) Review and revision

The Administrator shall review, and revise as necessary (taking into account developments in practices, processes, and control technologies), emission standards promulgated under this section no less often than every 8 years.

(7) Other requirements preserved

No emission standard or other requirement promulgated under this section shall be interpreted, construed or applied to diminish or replace the requirements of a more stringent emission limitation or other applicable requirement established pursuant to section 7411 of this title, part C or D of this subchapter, or other authority of this chapter or a standard issued under State authority.

(8) Coke ovens

(A) Not later than December 31, 1992, the Administrator shall promulgate regulations establishing emission standards under paragraphs (2) and (3) of this subsection for coke oven batteries. In establishing such standards, the Administrator shall evaluate--

(i) the use of sodium silicate (or equivalent) luting compounds to prevent door leaks, and other operating practices

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and technologies for their effectiveness in reducing coke oven emissions, and their suitability for use on new and existing coke oven batteries, taking into account costs and reasonable commercial door warranties; and

(ii) as a basis for emission standards under this subsection for new coke oven batteries that begin construction after the date of proposal of such standards, the Jewell design Thompson non-recovery coke oven batteries and other non-recovery coke oven technologies, and other appropriate emission control and coke production technologies, as to their effectiveness in reducing coke oven emissions and their capability for production of steel quality coke.

Such regulations shall require at a minimum that coke oven batteries will not exceed 8 per centum leaking doors, 1 per centum leaking lids, 5 per centum leaking offtakes, and 16 seconds visible emissions per charge, with no exclusion for emissions during the period after the closing of self-sealing oven doors. Notwithstanding subsection (i) of this section, the compliance date for such emission standards for existing coke oven batteries shall be December 31, 1995.

(B) The Administrator shall promulgate work practice regulations under this subsection for coke oven batteries requiring, as appropriate--

(i) the use of sodium silicate (or equivalent) luting compounds, if the Administrator determines that use of sodium silicate is an effective means of emissions control and is achievable, taking into account costs and reasonable commercial warranties for doors and related equipment; and

(ii) door and jam cleaning practices.

Notwithstanding subsection (i) of this section, the compliance date for such work practice regulations for coke oven batteries shall be not later than the date 3 years after November 15, 1990.

(C) For coke oven batteries electing to qualify for an extension of the compliance date for standards promulgated under subsection (f) of this section in accordance with subsection (i)(8) of this section, the emission standards under this subsection for coke oven batteries shall require that coke oven batteries not exceed 8 per centum leaking doors, 1 per centum leaking lids, 5 per centum leaking offtakes, and 16 seconds visible emissions per charge, with no exclusion for emissions during the period after the closing of self-sealing doors. Notwithstanding subsection (i) of this section, the compliance date for such emission standards for existing coke oven batteries seeking an extension shall be not later than the date 3 years after November 15, 1990.

(9) Sources licensed by the Nuclear Regulatory Commission

No standard for radionuclide emissions from any category or subcategory of facilities licensed by the Nuclear Regulatory Commission (or an Agreement State) is required to be promulgated under this section if the Administrator determines, by rule, and after consultation with the Nuclear Regulatory Commission, that the regulatory program established by the Nuclear Regulatory Commission pursuant to the Atomic Energy Act [42 U.S.C.A. § 2011 et seq.] for such category or subcategory provides an ample margin of safety to protect the public health. Nothing in this subsection shall

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preclude or deny the right of any State or political subdivision thereof to adopt or enforce any standard or limitation respecting emissions of radionuclides which is more stringent than the standard or limitation in effect under section 7411 of this title or this section.

(10) Effective date

Emission standards or other regulations promulgated under this subsection shall be effective upon promulgation.

(e) Schedule for standards and review

(1) In general

The Administrator shall promulgate regulations establishing emission standards for categories and subcategories of sources initially listed for regulation pursuant to subsection (c)(1) of this section as expeditiously as practicable, assuring that--

(A) emission standards for not less than 40 categories and subcategories (not counting coke oven batteries) shall be promulgated not later than 2 years after November 15, 1990;

(B) emission standards for coke oven batteries shall be promulgated not later than December 31, 1992;

(C) emission standards for 25 per centum of the listed categories and subcategories shall be promulgated not later than 4 years after November 15, 1990;

(D) emission standards for an additional 25 per centum of the listed categories and subcategories shall be promulgated not later than 7 years after November 15, 1990; and

(E) emission standards for all categories and subcategories shall be promulgated not later than 10 years after November 15, 1990.

(2) Priorities

In determining priorities for promulgating standards under subsection (d) of this section, the Administrator shall consider--

(A) the known or anticipated adverse effects of such pollutants on public health and the environment;

(B) the quantity and location of emissions or reasonably anticipated emissions of hazardous air pollutants that each category or subcategory will emit; and

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(C) the efficiency of grouping categories or subcategories according to the pollutants emitted, or the processes or technologies used.

(3) Published schedule

Not later than 24 months after November 15, 1990, and after opportunity for comment, the Administrator shall publish a schedule establishing a date for the promulgation of emission standards for each category and subcategory of sources listed pursuant to subsection (c)(1) and (3) of this section which shall be consistent with the requirements of paragraphs (1) and (2). The determination of priorities for the promulgation of standards pursuant to this paragraph is not a rulemaking and shall not be subject to judicial review, except that, failure to promulgate any standard pursuant to the schedule established by this paragraph shall be subject to review under section 7604 of this title.

(4) Judicial review

Notwithstanding section 7607 of this title, no action of the Administrator adding a pollutant to the list under subsection (b) of this section or listing a source category or subcategory under subsection (c) of this section shall be a final agency action subject to judicial review, except that any such action may be reviewed under such section 7607 of this title when the Administrator issues emission standards for such pollutant or category.

(5) Publicly owned treatment works

The Administrator shall promulgate standards pursuant to subsection (d) of this section applicable to publicly owned treatment works (as defined in title II of the Federal Water Pollution Control Act [33 U.S.C.A. § 1281 et seq.]) not later than 5 years after November 15, 1990.

(f) Standard to protect health and environment

(1) Report

Not later than 6 years after November 15, 1990, the Administrator shall investigate and report, after consultation with the Surgeon General and after opportunity for public comment, to Congress on--

(A) methods of calculating the risk to public health remaining, or likely to remain, from sources subject to regulation under this section after the application of standards under subsection (d) of this section;

(B) the public health significance of such estimated remaining risk and the technologically and commercially available methods and costs of reducing such risks;

(C) the actual health effects with respect to persons living in the vicinity of sources, any available epidemiological or other health studies, risks presented by background concentrations of hazardous air pollutants, any uncertainties in risk assessment methodology or other health assessment technique, and any negative health or environmental consequences to the community of efforts to reduce such risks; and

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(D) recommendations as to legislation regarding such remaining risk.

(2) Emission standards

(A) If Congress does not act on any recommendation submitted under paragraph (1), the Administrator shall, within 8 years after promulgation of standards for each category or subcategory of sources pursuant to subsection (d) of this section, promulgate standards for such category or subcategory if promulgation of such standards is required in order to provide an ample margin of safety to protect public health in accordance with this section (as in effect before November 15, 1990) or to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect. Emission standards promulgated under this subsection shall provide an ample margin of safety to protect public health in accordance with this section (as in effect before November 15, 1990), unless the Administrator determines that a more stringent standard is necessary to prevent, taking into consideration costs, energy, safety, and other relevant factors, an adverse environmental effect. If standards promulgated pursuant to subsection (d) of this section and applicable to a category or subcategory of sources emitting a pollutant (or pollutants) classified as a known, probable or possible human carcinogen do not reduce lifetime excess cancer risks to the individual most exposed to emissions from a source in the category or subcategory to less than one in one million, the Administrator shall promulgate standards under this subsection for such source category.

(B) Nothing in subparagraph (A) or in any other provision of this section shall be construed as affecting, or applying to the Administrator's interpretation of this section, as in effect before November 15, 1990, and set forth in the Federal Register of September 14, 1989 (54 Federal Register 38044).

(C) The Administrator shall determine whether or not to promulgate such standards and, if the Administrator decides to promulgate such standards, shall promulgate the standards 8 years after promulgation of the standards under subsection (d) of this section for each source category or subcategory concerned. In the case of categories or subcategories for which standards under subsection (d) of this section are required to be promulgated within 2 years after November 15, 1990, the Administrator shall have 9 years after promulgation of the standards under subsection (d) of this section to make the determination under the preceding sentence and, if required, to promulgate the standards under this paragraph.

(3) Effective date

Any emission standard established pursuant to this subsection shall become effective upon promulgation.

(4) Prohibition

No air pollutant to which a standard under this subsection applies may be emitted from any stationary source in violation of such standard, except that in the case of an existing source--

(A) such standard shall not apply until 90 days after its effective date, and

(B) the Administrator may grant a waiver permitting such source a period of up to 2 years after the effective date of

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a standard to comply with the standard if the Administrator finds that such period is necessary for the installation of controls and that steps will be taken during the period of the waiver to assure that the health of persons will be protected from imminent endangerment.

(5) Area sources

The Administrator shall not be required to conduct any review under this subsection or promulgate emission limitations under this subsection for any category or subcategory of area sources that is listed pursuant to subsection (c)(3) of this section and for which an emission standard is promulgated pursuant to subsection (d)(5) of this section.

(6) Unique chemical substances

In establishing standards for the control of unique chemical substances of listed pollutants without CAS numbers under this subsection, the Administrator shall establish such standards with respect to the health and environmental effects of the substances actually emitted by sources and direct transformation byproducts of such emissions in the categories and subcategories.

(g) Modifications

(1) Offsets

(A) A physical change in, or change in the method of operation of, a major source which results in a greater than de minimis increase in actual emissions of a hazardous air pollutant shall not be considered a modification, if such increase in the quantity of actual emissions of any hazardous air pollutant from such source will be offset by an equal or greater decrease in the quantity of emissions of another hazardous air pollutant (or pollutants) from such source which is deemed more hazardous, pursuant to guidance issued by the Administrator under subparagraph (B). The owner or operator of such source shall submit a showing to the Administrator (or the State) that such increase has been offset under the preceding sentence.

(B) The Administrator shall, after notice and opportunity for comment and not later than 18 months after November 15, 1990, publish guidance with respect to implementation of this subsection. Such guidance shall include an identification, to the extent practicable, of the relative hazard to human health resulting from emissions to the ambient air of each of the pollutants listed under subsection (b) of this section sufficient to facilitate the offset showing authorized by subparagraph (A). Such guidance shall not authorize offsets between pollutants where the increased pollutant (or more than one pollutant in a stream of pollutants) causes adverse effects to human health for which no safety threshold for exposure can be determined unless there are corresponding decreases in such types of pollutant(s).

(2) Construction, reconstruction and modifications

(A) After the effective date of a permit program under subchapter V of this chapter in any State, no person may modify a major source of hazardous air pollutants in such State, unless the Administrator (or the State) determines that the maximum achievable control technology emission limitation under this section for existing sources will be met. Such determination shall be made on a case-by-case basis where no applicable emissions limitations have been established by the Administrator.

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(B) After the effective date of a permit program under subchapter V of this chapter in any State, no person may construct or reconstruct any major source of hazardous air pollutants, unless the Administrator (or the State) determines that the maximum achievable control technology emission limitation under this section for new sources will be met. Such determination shall be made on a case-by-case basis where no applicable emission limitations have been established by the Administrator.

(3) Procedures for modifications

The Administrator (or the State) shall establish reasonable procedures for assuring that the requirements applying to modifications under this section are reflected in the permit.

(h) Work practice standards and other requirements

(1) In general

For purposes of this section, if it is not feasible in the judgment of the Administrator to prescribe or enforce an emission standard for control of a hazardous air pollutant or pollutants, the Administrator may, in lieu thereof, promulgate a design, equipment, work practice, or operational standard, or combination thereof, which in the Administrator's judgment is consistent with the provisions of subsection (d) or (f) of this section. In the event the Administrator promulgates a design or equipment standard under this subsection, the Administrator shall include as part of such standard such requirements as will assure the proper operation and maintenance of any such element of design or equipment.

(2) Definition

For the purpose of this subsection, the phrase “not feasible to prescribe or enforce an emission standard” means any situation in which the Administrator determines that--

(A) a hazardous air pollutant or pollutants cannot be emitted through a conveyance designed and constructed to emit or capture such pollutant, or that any requirement for, or use of, such a conveyance would be inconsistent with any Federal, State or local law, or

(B) the application of measurement methodology to a particular class of sources is not practicable due to technological and economic limitations.

(3) Alternative standard

If after notice and opportunity for comment, the owner or operator of any source establishes to the satisfaction of the Administrator that an alternative means of emission limitation will achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such pollutant achieved under the requirements of paragraph (1), the Administrator shall permit the use of such alternative by the source for purposes of compliance with this section with respect to such pollutant.

(4) Numerical standard required

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Any standard promulgated under paragraph (1) shall be promulgated in terms of an emission standard whenever it is feasible to promulgate and enforce a standard in such terms.

(i) Schedule for compliance

(1) Preconstruction and operating requirements

After the effective date of any emission standard, limitation, or regulation under subsection (d), (f) or (h) of this section, no person may construct any new major source or reconstruct any existing major source subject to such emission standard, regulation or limitation unless the Administrator (or a State with a permit program approved under subchapter V of this chapter) determines that such source, if properly constructed, reconstructed and operated, will comply with the standard, regulation or limitation.

(2) Special rule

Notwithstanding the requirements of paragraph (1), a new source which commences construction or reconstruction after a standard, limitation or regulation applicable to such source is proposed and before such standard, limitation or regulation is promulgated shall not be required to comply with such promulgated standard until the date 3 years after the date of promulgation if--

(A) the promulgated standard, limitation or regulation is more stringent than the standard, limitation or regulation proposed; and

(B) the source complies with the standard, limitation, or regulation as proposed during the 3-year period immediately after promulgation.

(3) Compliance schedule for existing sources

(A) After the effective date of any emissions standard, limitation or regulation promulgated under this section and applicable to a source, no person may operate such source in violation of such standard, limitation or regulation except, in the case of an existing source, the Administrator shall establish a compliance date or dates for each category or subcategory of existing sources, which shall provide for compliance as expeditiously as practicable, but in no event later than 3 years after the effective date of such standard, except as provided in subparagraph (B) and paragraphs (4) through (8).

(B) The Administrator (or a State with a program approved under subchapter V of this chapter) may issue a permit that grants an extension permitting an existing source up to 1 additional year to comply with standards under subsection (d) of this section if such additional period is necessary for the installation of controls. An additional extension of up to 3 years may be added for mining waste operations, if the 4-year compliance time is insufficient to dry and cover mining waste in order to reduce emissions of any pollutant listed under subsection (b) of this section.

(4) Presidential exemption

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The President may exempt any stationary source from compliance with any standard or limitation under this section for a period of not more than 2 years if the President determines that the technology to implement such standard is not available and that it is in the national security interests of the United States to do so. An exemption under this paragraph may be extended for 1 or more additional periods, each period not to exceed 2 years. The President shall report to Congress with respect to each exemption (or extension thereof) made under this paragraph.

(5) Early reduction

(A) The Administrator (or a State acting pursuant to a permit program approved under subchapter V of this chapter) shall issue a permit allowing an existing source, for which the owner or operator demonstrates that the source has achieved a reduction of 90 per centum or more in emissions of hazardous air pollutants (95 per centum in the case of hazardous air pollutants which are particulates) from the source, to meet an alternative emission limitation reflecting such reduction in lieu of an emission limitation promulgated under subsection (d) of this section for a period of 6 years from the compliance date for the otherwise applicable standard, provided that such reduction is achieved before the otherwise applicable standard under subsection (d) of this section is first proposed. Nothing in this paragraph shall preclude a State from requiring reductions in excess of those specified in this subparagraph as a condition of granting the extension authorized by the previous sentence.

(B) An existing source which achieves the reduction referred to in subparagraph (A) after the proposal of an applicable standard but before January 1, 1994, may qualify under subparagraph (A), if the source makes an enforceable commitment to achieve such reduction before the proposal of the standard. Such commitment shall be enforceable to the same extent as a regulation under this section.

(C) The reduction shall be determined with respect to verifiable and actual emissions in a base year not earlier than calendar year 1987, provided that, there is no evidence that emissions in the base year are artificially or substantially greater than emissions in other years prior to implementation of emissions reduction measures. The Administrator may allow a source to use a baseline year of 1985 or 1986 provided that the source can demonstrate to the satisfaction of the Administrator that emissions data for the source reflects verifiable data based on information for such source, received by the Administrator prior to November 15, 1990, pursuant to an information request issued under section 7414 of this title.

(D) For each source granted an alternative emission limitation under this paragraph there shall be established by a permit issued pursuant to subchapter V of this chapter an enforceable emission limitation for hazardous air pollutants reflecting the reduction which qualifies the source for an alternative emission limitation under this paragraph. An alternative emission limitation under this paragraph shall not be available with respect to standards or requirements promulgated pursuant to subsection (f) of this section and the Administrator shall, for the purpose of determining whether a standard under subsection (f) of this section is necessary, review emissions from sources granted an alternative emission limitation under this paragraph at the same time that other sources in the category or subcategory are reviewed.

(E) With respect to pollutants for which high risks of adverse public health effects may be associated with exposure to small quantities including, but not limited to, chlorinated dioxins and furans, the Administrator shall by regulation limit the use of offsetting reductions in emissions of other hazardous air pollutants from the source as counting toward the 90 per centum reduction in such high-risk pollutants qualifying for an alternative emissions limitation under this para-

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graph.

(6) Other reductions

Notwithstanding the requirements of this section, no existing source that has installed--

(A) best available control technology (as defined in section 7479(3) of this title), or

(B) technology required to meet a lowest achievable emission rate (as defined in section 7501 of this title),

prior to the promulgation of a standard under this section applicable to such source and the same pollutant (or stream of pollutants) controlled pursuant to an action described in subparagraph (A) or (B) shall be required to comply with such standard under this section until the date 5 years after the date on which such installation or reduction has been achieved, as determined by the Administrator. The Administrator may issue such rules and guidance as are necessary to implement this paragraph.

(7) Extension for new sources

A source for which construction or reconstruction is commenced after the date an emission standard applicable to such source is proposed pursuant to subsection (d) of this section but before the date an emission standard applicable to such source is proposed pursuant to subsection (f) of this section shall not be required to comply with the emission standard under subsection (f) of this section until the date 10 years after the date construction or reconstruction is commenced.

(8) Coke ovens

(A) Any coke oven battery that complies with the emission limitations established under subsection (d)(8)(C) of this section, subparagraph (B), and subparagraph (C), and complies with the provisions of subparagraph (E), shall not be required to achieve emission limitations promulgated under subsection (f) of this section until January 1, 2020.

(B)(i) Not later than December 31, 1992, the Administrator shall promulgate emission limitations for coke oven emissions from coke oven batteries. Notwithstanding paragraph (3) of this subsection, the compliance date for such emission limitations for existing coke oven batteries shall be January 1, 1998. Such emission limitations shall reflect the lowest achievable emission rate as defined in section 7501 of this title for a coke oven battery that is rebuilt or a replacement at a coke oven plant for an existing battery. Such emission limitations shall be no less stringent than--

(I) 3 per centum leaking doors (5 per centum leaking doors for six meter batteries);

(II) 1 per centum leaking lids;

(III) 4 per centum leaking offtakes; and

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(IV) 16 seconds visible emissions per charge,

with an exclusion for emissions during the period after the closing of self-sealing oven doors (or the total mass emissions equivalent). The rulemaking in which such emission limitations are promulgated shall also establish an appropriate measurement methodology for determining compliance with such emission limitations, and shall establish such emission limitations in terms of an equivalent level of mass emissions reduction from a coke oven battery, unless the Administrator finds that such a mass emissions standard would not be practicable or enforceable. Such measurement methodology, to the extent it measures leaking doors, shall take into consideration alternative test methods that reflect the best technology and practices actually applied in the affected industries, and shall assure that the final test methods are consistent with the performance of such best technology and practices.

(ii) If the Administrator fails to promulgate such emission limitations under this subparagraph prior to the effective date of such emission limitations, the emission limitations applicable to coke oven batteries under this subparagraph shall be--

(I) 3 per centum leaking doors (5 per centum leaking doors for six meter batteries);

(II) 1 per centum leaking lids;

(III) 4 per centum leaking offtakes; and

(IV) 16 seconds visible emissions per charge,

or the total mass emissions equivalent (if the total mass emissions equivalent is determined to be practicable and enforceable), with no exclusion for emissions during the period after the closing of self-sealing oven doors.

(C) Not later than January 1, 2007, the Administrator shall review the emission limitations promulgated under subparagraph (B) and revise, as necessary, such emission limitations to reflect the lowest achievable emission rate as defined in section 7501 of this title at the time for a coke oven battery that is rebuilt or a replacement at a coke oven plant for an existing battery. Such emission limitations shall be no less stringent than the emission limitation promulgated under subparagraph (B). Notwithstanding paragraph (2) of this subsection, the compliance date for such emission limitations for existing coke oven batteries shall be January 1, 2010.

(D) At any time prior to January 1, 1998, the owner or operator of any coke oven battery may elect to comply with emission limitations promulgated under subsection (f) of this section by the date such emission limitations would otherwise apply to such coke oven battery, in lieu of the emission limitations and the compliance dates provided under subparagraphs (B) and (C) of this paragraph. Any such owner or operator shall be legally bound to comply with such emission limitations promulgated under subsection (f) of this section with respect to such coke oven battery as of January 1, 2003. If no such emission limitations have been promulgated for such coke oven battery, the Administrator shall promulgate such emission limitations in accordance with subsection (f) of this section for such coke oven battery.

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(E) Coke oven batteries qualifying for an extension under subparagraph (A) shall make available not later than January 1, 2000, to the surrounding communities the results of any risk assessment performed by the Administrator to determine the appropriate level of any emission standard established by the Administrator pursuant to subsection (f) of this section.

(F) Notwithstanding the provisions of this section, reconstruction of any source of coke oven emissions qualifying for an extension under this paragraph shall not subject such source to emission limitations under subsection (f) of this section more stringent than those established under subparagraphs (B) and (C) until January 1, 2020. For the purposes of this subparagraph, the term "reconstruction" includes the replacement of existing coke oven battery capacity with new coke oven batteries of comparable or lower capacity and lower potential emissions.

(j) Equivalent emission limitation by permit

(1) Effective date

The requirements of this subsection shall apply in each State beginning on the effective date of a permit program established pursuant to subchapter V of this chapter in such State, but not prior to the date 42 months after November 15, 1990.

(2) Failure to promulgate a standard

In the event that the Administrator fails to promulgate a standard for a category or subcategory of major sources by the date established pursuant to subsection (e)(1) and (3) of this section, and beginning 18 months after such date (but not prior to the effective date of a permit program under subchapter V of this chapter), the owner or operator of any major source in such category or subcategory shall submit a permit application under paragraph (3) and such owner or operator shall also comply with paragraphs (5) and (6).

(3) Applications

By the date established by paragraph (2), the owner or operator of a major source subject to this subsection shall file an application for a permit. If the owner or operator of a source has submitted a timely and complete application for a permit required by this subsection, any failure to have a permit shall not be a violation of paragraph (2), unless the delay in final action is due to the failure of the applicant to timely submit information required or requested to process the application. The Administrator shall not later than 18 months after November 15, 1990, and after notice and opportunity for comment, establish requirements for applications under this subsection including a standard application form and criteria for determining in a timely manner the completeness of applications.

(4) Review and approval

Permit applications submitted under this subsection shall be reviewed and approved or disapproved according to the provisions of section 7661d of this title. In the event that the Administrator (or the State) disapproves a permit application submitted under this subsection or determines that the application is incomplete, the applicant shall have up to 6 months to revise the application to meet the objections of the Administrator (or the State).

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(5) Emission limitation

The permit shall be issued pursuant to subchapter V of this chapter and shall contain emission limitations for the hazardous air pollutants subject to regulation under this section and emitted by the source that the Administrator (or the State) determines, on a case-by-case basis, to be equivalent to the limitation that would apply to such source if an emission standard had been promulgated in a timely manner under subsection (d) of this section. In the alternative, if the applicable criteria are met, the permit may contain an emissions limitation established according to the provisions of subsection (i)(5) of this section. For purposes of the preceding sentence, the reduction required by subsection (i)(5)(A) of this section shall be achieved by the date on which the relevant standard should have been promulgated under subsection (d) of this section. No such pollutant may be emitted in amounts exceeding an emission limitation contained in a permit immediately for new sources and, as expeditiously as practicable, but not later than the date 3 years after the permit is issued for existing sources or such other compliance date as would apply under subsection (i) of this section.

(6) Applicability of subsequent standards

If the Administrator promulgates an emission standard that is applicable to the major source prior to the date on which a permit application is approved, the emission limitation in the permit shall reflect the promulgated standard rather than the emission limitation determined pursuant to paragraph (5), provided that the source shall have the compliance period provided under subsection (i) of this section. If the Administrator promulgates a standard under subsection (d) of this section that would be applicable to the source in lieu of the emission limitation established by permit under this subsection after the date on which the permit has been issued, the Administrator (or the State) shall revise such permit upon the next renewal to reflect the standard promulgated by the Administrator providing such source a reasonable time to comply, but no longer than 8 years after such standard is promulgated or 8 years after the date on which the source is first required to comply with the emissions limitation established by paragraph (5), whichever is earlier.

(k) Area source program

(1) Findings and purpose

The Congress finds that emissions of hazardous air pollutants from area sources may individually, or in the aggregate, present significant risks to public health in urban areas. Considering the large number of persons exposed and the risks of carcinogenic and other adverse health effects from hazardous air pollutants, ambient concentrations characteristic of large urban areas should be reduced to levels substantially below those currently experienced. It is the purpose of this subsection to achieve a substantial reduction in emissions of hazardous air pollutants from area sources and an equivalent reduction in the public health risks associated with such sources including a reduction of not less than 75 per centum in the incidence of cancer attributable to emissions from such sources.

(2) Research program

The Administrator shall, after consultation with State and local air pollution control officials, conduct a program of research with respect to sources of hazardous air pollutants in urban areas and shall include within such program--

(A) ambient monitoring for a broad range of hazardous air pollutants (including, but not limited to, volatile organic compounds, metals, pesticides and products of incomplete combustion) in a representative number of urban loca-

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tions;

(B) analysis to characterize the sources of such pollution with a focus on area sources and the contribution that such sources make to public health risks from hazardous air pollutants; and

(C) consideration of atmospheric transformation and other factors which can elevate public health risks from such pollutants.

Health effects considered under this program shall include, but not be limited to, carcinogenicity, mutagenicity, teratogenicity, neurotoxicity, reproductive dysfunction and other acute and chronic effects including the role of such pollutants as precursors of ozone or acid aerosol formation. The Administrator shall report the preliminary results of such research not later than 3 years after November 15, 1990.

(3) National strategy

(A) Considering information collected pursuant to the monitoring program authorized by paragraph (2), the Administrator shall, not later than 5 years after November 15, 1990, and after notice and opportunity for public comment, prepare and transmit to the Congress a comprehensive strategy to control emissions of hazardous air pollutants from area sources in urban areas.

(B) The strategy shall--

(i) identify not less than 30 hazardous air pollutants which, as the result of emissions from area sources, present the greatest threat to public health in the largest number of urban areas and that are or will be listed pursuant to subsection (b) of this section, and

(ii) identify the source categories or subcategories emitting such pollutants that are or will be listed pursuant to subsection (c) of this section. When identifying categories and subcategories of sources under this subparagraph, the Administrator shall assure that sources accounting for 90 per centum or more of the aggregate emissions of each of the 30 identified hazardous air pollutants are subject to standards pursuant to subsection (d) of this section.

(C) The strategy shall include a schedule of specific actions to substantially reduce the public health risks posed by the release of hazardous air pollutants from area sources that will be implemented by the Administrator under the authority of this or other laws (including, but not limited to, the Toxic Substances Control Act [15 U.S.C.A. § 2601 et seq.], the Federal Insecticide, Fungicide and Rodenticide Act [7 U.S.C.A. § 136 et seq.] and the Resource Conservation and Recovery Act [42 U.S.C.A. § 6901 et seq.]) or by the States. The strategy shall achieve a reduction in the incidence of cancer attributable to exposure to hazardous air pollutants emitted by stationary sources of not less than 75 per centum, considering control of emissions of hazardous air pollutants from all stationary sources and resulting from measures implemented by the Administrator or by the States under this or other laws.

(D) The strategy may also identify research needs in monitoring, analytical methodology, modeling or pollution con-

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trol techniques and recommendations for changes in law that would further the goals and objectives of this subsection.

(E) Nothing in this subsection shall be interpreted to preclude or delay implementation of actions with respect to area sources of hazardous air pollutants under consideration pursuant to this or any other law and that may be promulgated before the strategy is prepared.

(F) The Administrator shall implement the strategy as expeditiously as practicable assuring that all sources are in compliance with all requirements not later than 9 years after November 15, 1990.

(G) As part of such strategy the Administrator shall provide for ambient monitoring and emissions modeling in urban areas as appropriate to demonstrate that the goals and objectives of the strategy are being met.

(4) Areawide activities

In addition to the national urban air toxics strategy authorized by paragraph (3), the Administrator shall also encourage and support areawide strategies developed by State or local air pollution control agencies that are intended to reduce risks from emissions by area sources within a particular urban area. From the funds available for grants under this section, the Administrator shall set aside not less than 10 per centum to support areawide strategies addressing hazardous air pollutants emitted by area sources and shall award such funds on a demonstration basis to those States with innovative and effective strategies. At the request of State or local air pollution control officials, the Administrator shall prepare guidelines for control technologies or management practices which may be applicable to various categories or subcategories of area sources.

(5) Report

The Administrator shall report to the Congress at intervals not later than 8 and 12 years after November 15, 1990, on actions taken under this subsection and other parts of this chapter to reduce the risk to public health posed by the release of hazardous air pollutants from area sources. The reports shall also identify specific metropolitan areas that continue to experience high risks to public health as the result of emissions from area sources.

(l) State programs

(1) In general

Each State may develop and submit to the Administrator for approval a program for the implementation and enforcement (including a review of enforcement delegations previously granted) of emission standards and other requirements for air pollutants subject to this section or requirements for the prevention and mitigation of accidental releases pursuant to subsection (r) of this section. A program submitted by a State under this subsection may provide for partial or complete delegation of the Administrator's authorities and responsibilities to implement and enforce emissions standards and prevention requirements but shall not include authority to set standards less stringent than those promulgated by the Administrator under this chapter.

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(2) Guidance

Not later than 12 months after November 15, 1990, the Administrator shall publish guidance that would be useful to the States in developing programs for submittal under this subsection. The guidance shall also provide for the registration of all facilities producing, processing, handling or storing any substance listed pursuant to subsection (r) of this section in amounts greater than the threshold quantity. The Administrator shall include as an element in such guidance an optional program begun in 1986 for the review of high-risk point sources of air pollutants including, but not limited to, hazardous air pollutants listed pursuant to subsection (b) of this section.

(3) Technical assistance

The Administrator shall establish and maintain an air toxics clearinghouse and center to provide technical information and assistance to State and local agencies and, on a cost recovery basis, to others on control technology, health and ecological risk assessment, risk analysis, ambient monitoring and modeling, and emissions measurement and monitoring. The Administrator shall use the authority of section 7403 of this title to examine methods for preventing, measuring, and controlling emissions and evaluating associated health and ecological risks. Where appropriate, such activity shall be conducted with not-for-profit organizations. The Administrator may conduct research on methods for preventing, measuring and controlling emissions and evaluating associated health and environment risks. All information collected under this paragraph shall be available to the public.

(4) Grants

Upon application of a State, the Administrator may make grants, subject to such terms and conditions as the Administrator deems appropriate, to such State for the purpose of assisting the State in developing and implementing a program for submittal and approval under this subsection. Programs assisted under this paragraph may include program elements addressing air pollutants or extremely hazardous substances other than those specifically subject to this section. Grants under this paragraph may include support for high-risk point source review as provided in paragraph (2) and support for the development and implementation of areawide area source programs pursuant to subsection (k) of this section.

(5) Approval or disapproval

Not later than 180 days after receiving a program submitted by a State, and after notice and opportunity for public comment, the Administrator shall either approve or disapprove such program. The Administrator shall disapprove any program submitted by a State, if the Administrator determines that--

(A) the authorities contained in the program are not adequate to assure compliance by all sources within the State with each applicable standard, regulation or requirement established by the Administrator under this section;

(B) adequate authority does not exist, or adequate resources are not available, to implement the program;

(C) the schedule for implementing the program and assuring compliance by affected sources is not sufficiently expeditious; or

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(D) the program is otherwise not in compliance with the guidance issued by the Administrator under paragraph (2) or is not likely to satisfy, in whole or in part, the objectives of this chapter.

If the Administrator disapproves a State program, the Administrator shall notify the State of any revisions or modifications necessary to obtain approval. The State may revise and resubmit the proposed program for review and approval pursuant to the provisions of this subsection.

(6) Withdrawal

Whenever the Administrator determines, after public hearing, that a State is not administering and enforcing a program approved pursuant to this subsection in accordance with the guidance published pursuant to paragraph (2) or the requirements of paragraph (5), the Administrator shall so notify the State and, if action which will assure prompt compliance is not taken within 90 days, the Administrator shall withdraw approval of the program. The Administrator shall not withdraw approval of any program unless the State shall have been notified and the reasons for withdrawal shall have been stated in writing and made public.

(7) Authority to enforce

Nothing in this subsection shall prohibit the Administrator from enforcing any applicable emission standard or requirement under this section.

(8) Local program

The Administrator may, after notice and opportunity for public comment, approve a program developed and submitted by a local air pollution control agency (after consultation with the State) pursuant to this subsection and any such agency implementing an approved program may take any action authorized to be taken by a State under this section.

(9) Permit authority

Nothing in this subsection shall affect the authorities and obligations of the Administrator or the State under subchapter V of this chapter.

(m) Atmospheric deposition to Great Lakes and coastal waters

(1) Deposition assessment

The Administrator, in cooperation with the Under Secretary of Commerce for Oceans and Atmosphere, shall conduct a program to identify and assess the extent of atmospheric deposition of hazardous air pollutants (and in the discretion of the Administrator, other air pollutants) to the Great Lakes, the Chesapeake Bay, Lake Champlain and coastal waters. As part of such program, the Administrator shall--

(A) monitor the Great Lakes, the Chesapeake Bay, Lake Champlain and coastal waters, including monitoring of the Great Lakes through the monitoring network established pursuant to paragraph (2) of this subsection and designing

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and deploying an atmospheric monitoring network for coastal waters pursuant to paragraph (4);

(B) investigate the sources and deposition rates of atmospheric deposition of air pollutants (and their atmospheric transformation precursors);

(C) conduct research to develop and improve monitoring methods and to determine the relative contribution of atmospheric pollutants to total pollution loadings to the Great Lakes, the Chesapeake Bay, Lake Champlain, and coastal waters;

(D) evaluate any adverse effects to public health or the environment caused by such deposition (including effects resulting from indirect exposure pathways) and assess the contribution of such deposition to violations of water quality standards established pursuant to the Federal Water Pollution Control Act [33 U.S.C.A. § 1251 et seq.] and drinking water standards established pursuant to the Safe Drinking Water Act [42 U.S.C.A. § 300f et seq.]; and

(E) sample for such pollutants in biota, fish, and wildlife of the Great Lakes, the Chesapeake Bay, Lake Champlain and coastal waters and characterize the sources of such pollutants.

(2) Great Lakes monitoring network

The Administrator shall oversee, in accordance with Annex 15 of the Great Lakes Water Quality Agreement, the establishment and operation of a Great Lakes atmospheric deposition network to monitor atmospheric deposition of hazardous air pollutants (and in the Administrator's discretion, other air pollutants) to the Great Lakes.

(A) As part of the network provided for in this paragraph, and not later than December 31, 1991, the Administrator shall establish in each of the 5 Great Lakes at least 1 facility capable of monitoring the atmospheric deposition of hazardous air pollutants in both dry and wet conditions.

(B) The Administrator shall use the data provided by the network to identify and track the movement of hazardous air pollutants through the Great Lakes, to determine the portion of water pollution loadings attributable to atmospheric deposition of such pollutants, and to support development of remedial action plans and other management plans as required by the Great Lakes Water Quality Agreement.

(C) The Administrator shall assure that the data collected by the Great Lakes atmospheric deposition monitoring network is in a format compatible with databases sponsored by the International Joint Commission, Canada, and the several States of the Great Lakes region.

(3) Monitoring for the Chesapeake Bay and Lake Champlain

The Administrator shall establish at the Chesapeake Bay and Lake Champlain atmospheric deposition stations to monitor deposition of hazardous air pollutants (and in the Administrator's discretion, other air pollutants) within the Chesapeake Bay and Lake Champlain watersheds. The Administrator shall determine the role of air deposition in the pollut-

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ant loadings of the Chesapeake Bay and Lake Champlain, investigate the sources of air pollutants deposited in the watersheds, evaluate the health and environmental effects of such pollutant loadings, and shall sample such pollutants in biota, fish and wildlife within the watersheds, as necessary to characterize such effects.

(4) Monitoring for coastal waters

The Administrator shall design and deploy atmospheric deposition monitoring networks for coastal waters and their watersheds and shall make any information collected through such networks available to the public. As part of this effort, the Administrator shall conduct research to develop and improve deposition monitoring methods, and to determine the relative contribution of atmospheric pollutants to pollutant loadings. For purposes of this subsection, "coastal waters" shall mean estuaries selected pursuant to section 320(a)(2)(A) of the Federal Water Pollution Control Act [33 U.S.C.A. § 1330(a)(2)(A)] or listed pursuant to section 320(a)(2)(B) of such Act [33 U.S.C.A. § 1330(a)(2)(B)] or estuarine research reserves designated pursuant to section 1461 of Title 16.

(5) Report

Within 3 years of November 15, 1990, and biennially thereafter, the Administrator, in cooperation with the Under Secretary of Commerce for Oceans and Atmosphere, shall submit to the Congress a report on the results of any monitoring, studies, and investigations conducted pursuant to this subsection. Such report shall include, at a minimum, an assessment of--

(A) the contribution of atmospheric deposition to pollution loadings in the Great Lakes, the Chesapeake Bay, Lake Champlain and coastal waters;

(B) the environmental and public health effects of any pollution which is attributable to atmospheric deposition to the Great Lakes, the Chesapeake Bay, Lake Champlain and coastal waters;

(C) the source or sources of any pollution to the Great Lakes, the Chesapeake Bay, Lake Champlain and coastal waters which is attributable to atmospheric deposition;

(D) whether pollution loadings in the Great Lakes, the Chesapeake Bay, Lake Champlain or coastal waters cause or contribute to exceedances [FN2] of drinking water standards pursuant to the Safe Drinking Water Act [42 U.S.C.A. § 300f et seq.] or water quality standards pursuant to the Federal Water Pollution Control Act [33 U.S.C.A. § 1251 et seq.] or, with respect to the Great Lakes, exceedances [FN2] of the specific objectives of the Great Lakes Water Quality Agreement; and

(E) a description of any revisions of the requirements, standards, and limitations pursuant to this chapter and other applicable Federal laws as are necessary to assure protection of human health and the environment.

(6) Additional regulation

As part of the report to Congress, the Administrator shall determine whether the other provisions of this section are ad-

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equate to prevent serious adverse effects to public health and serious or widespread environmental effects, including such effects resulting from indirect exposure pathways, associated with atmospheric deposition to the Great Lakes, the Chesapeake Bay, Lake Champlain and coastal waters of hazardous air pollutants (and their atmospheric transformation products). The Administrator shall take into consideration the tendency of such pollutants to bioaccumulate. Within 5 years after November 15, 1990, the Administrator shall, based on such report and determination, promulgate, in accordance with this section, such further emission standards or control measures as may be necessary and appropriate to prevent such effects, including effects due to bioaccumulation and indirect exposure pathways. Any requirements promulgated pursuant to this paragraph with respect to coastal waters shall only apply to the coastal waters of the States which are subject to section 7627(a) of this title.

(n) Other provisions

(1) Electric utility steam generating units

(A) The Administrator shall perform a study of the hazards to public health reasonably anticipated to occur as a result of emissions by electric utility steam generating units of pollutants listed under subsection (b) of this section after imposition of the requirements of this chapter. The Administrator shall report the results of this study to the Congress within 3 years after November 15, 1990. The Administrator shall develop and describe in the Administrator's report to Congress alternative control strategies for emissions which may warrant regulation under this section. The Administrator shall regulate electric utility steam generating units under this section, if the Administrator finds such regulation is appropriate and necessary after considering the results of the study required by this subparagraph.

(B) The Administrator shall conduct, and transmit to the Congress not later than 4 years after November 15, 1990, a study of mercury emissions from electric utility steam generating units, municipal waste combustion units, and other sources, including area sources. Such study shall consider the rate and mass of such emissions, the health and environmental effects of such emissions, technologies which are available to control such emissions, and the costs of such technologies.

(C) The National Institute of Environmental Health Sciences shall conduct, and transmit to the Congress not later than 3 years after November 15, 1990, a study to determine the threshold level of mercury exposure below which adverse human health effects are not expected to occur. Such study shall include a threshold for mercury concentrations in the tissue of fish which may be consumed (including consumption by sensitive populations) without adverse effects to public health.

(2) Coke oven production technology study

(A) The Secretary of the Department of Energy and the Administrator shall jointly undertake a 6-year study to assess coke oven production emission control technologies and to assist in the development and commercialization of technically practicable and economically viable control technologies which have the potential to significantly reduce emissions of hazardous air pollutants from coke oven production facilities. In identifying control technologies, the Secretary and the Administrator shall consider the range of existing coke oven operations and battery design and the availability of sources of materials for such coke ovens as well as alternatives to existing coke oven production design.

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(B) The Secretary and the Administrator are authorized to enter into agreements with persons who propose to develop, install and operate coke production emission control technologies which have the potential for significant emissions reductions of hazardous air pollutants provided that Federal funds shall not exceed 50 per centum of the cost of any project assisted pursuant to this paragraph.

(C) On completion of the study, the Secretary shall submit to Congress a report on the results of the study and shall make recommendations to the Administrator identifying practicable and economically viable control technologies for coke oven production facilities to reduce residual risks remaining after implementation of the standard under subsection (d) of this section.

(D) There are authorized to be appropriated $5,000,000 for each of the fiscal years 1992 through 1997 to carry out the program authorized by this paragraph.

(3) Publicly owned treatment works

The Administrator may conduct, in cooperation with the owners and operators of publicly owned treatment works, studies to characterize emissions of hazardous air pollutants emitted by such facilities, to identify industrial, commercial and residential discharges that contribute to such emissions and to demonstrate control measures for such emissions. When promulgating any standard under this section applicable to publicly owned treatment works, the Administrator may provide for control measures that include pretreatment of discharges causing emissions of hazardous air pollutants and process or product substitutions or limitations that may be effective in reducing such emissions. The Administrator may prescribe uniform sampling, modeling and risk assessment methods for use in implementing this subsection.

(4) Oil and gas wells; pipeline facilities

(A) Notwithstanding the provisions of subsection (a) of this section, emissions from any oil or gas exploration or production well (with its associated equipment) and emissions from any pipeline compressor or pump station shall not be aggregated with emissions from other similar units, whether or not such units are in a contiguous area or under common control, to determine whether such units or stations are major sources, and in the case of any oil or gas exploration or production well (with its associated equipment), such emissions shall not be aggregated for any purpose under this section.

(B) The Administrator shall not list oil and gas production wells (with its associated equipment) as an area source category under subsection (c) of this section, except that the Administrator may establish an area source category for oil and gas production wells located in any metropolitan statistical area or consolidated metropolitan statistical area with a population in excess of 1 million, if the Administrator determines that emissions of hazardous air pollutants from such wells present more than a negligible risk of adverse effects to public health.

(5) Hydrogen sulfide

The Administrator is directed to assess the hazards to public health and the environment resulting from the emission of hydrogen sulfide associated with the extraction of oil and natural gas resources. To the extent practicable, the assess-

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ment shall build upon and not duplicate work conducted for an assessment pursuant to section 8002(m) of the Solid Waste Disposal Act [42 U.S.C.A. § 6982(m)] and shall reflect consultation with the States. The assessment shall include a review of existing State and industry control standards, techniques and enforcement. The Administrator shall report to the Congress within 24 months after November 15, 1990, with the findings of such assessment, together with any recommendations, and shall, as appropriate, develop and implement a control strategy for emissions of hydrogen sulfide to protect human health and the environment, based on the findings of such assessment, using authorities under this chapter including sections [FN3] 7411 of this title and this section.

(6) Hydrofluoric acid

Not later than 2 years after November 15, 1990, the Administrator shall, for those regions of the country which do not have comprehensive health and safety regulations with respect to hydrofluoric acid, complete a study of the potential hazards of hydrofluoric acid and the uses of hydrofluoric acid in industrial and commercial applications to public health and the environment considering a range of events including worst-case accidental releases and shall make recommendations to the Congress for the reduction of such hazards, if appropriate.

(7) RCRA facilities

In the case of any category or subcategory of sources the air emissions of which are regulated under subtitle C of the Solid Waste Disposal Act [42 U.S.C.A. § 6921 et seq.], the Administrator shall take into account any regulations of such emissions which are promulgated under such subtitle and shall, to the maximum extent practicable and consistent with the provisions of this section, ensure that the requirements of such subtitle and this section are consistent.

(o) National Academy of Sciences study

(1) Request of the Academy

Within 3 months of November 15, 1990, the Administrator shall enter into appropriate arrangements with the National Academy of Sciences to conduct a review of--

(A) risk assessment methodology used by the Environmental Protection Agency to determine the carcinogenic risk associated with exposure to hazardous air pollutants from source categories and subcategories subject to the requirements of this section; and

(B) improvements in such methodology.

(2) Elements to be studied

In conducting such review, the National Academy of Sciences should consider, but not be limited to, the following--

(A) the techniques used for estimating and describing the carcinogenic potency to humans of hazardous air pollutants; and

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(B) the techniques used for estimating exposure to hazardous air pollutants (for hypothetical and actual maximally exposed individuals as well as other exposed individuals).

(3) Other health effects of concern

To the extent practicable, the Academy shall evaluate and report on the methodology for assessing the risk of adverse human health effects other than cancer for which safe thresholds of exposure may not exist, including, but not limited to, inheritable genetic mutations, birth defects, and reproductive dysfunctions.

(4) Report

A report on the results of such review shall be submitted to the Senate Committee on Environment and Public Works, the House Committee on Energy and Commerce, the Risk Assessment and Management Commission established by section 303 of the Clean Air Act Amendments of 1990 and the Administrator not later than 30 months after November 15, 1990.

(5) Assistance

The Administrator shall assist the Academy in gathering any information the Academy deems necessary to carry out this subsection. The Administrator may use any authority under this chapter to obtain information from any person, and to require any person to conduct tests, keep and produce records, and make reports respecting research or other activities conducted by such person as necessary to carry out this subsection.

(6) Authorization

Of the funds authorized to be appropriated to the Administrator by this chapter, such amounts as are required shall be available to carry out this subsection.

(7) Guidelines for carcinogenic risk assessment

The Administrator shall consider, but need not adopt, the recommendations contained in the report of the National Academy of Sciences prepared pursuant to this subsection and the views of the Science Advisory Board, with respect to such report. Prior to the promulgation of any standard under subsection (f) of this section, and after notice and opportunity for comment, the Administrator shall publish revised Guidelines for Carcinogenic Risk Assessment or a detailed explanation of the reasons that any recommendations contained in the report of the National Academy of Sciences will not be implemented. The publication of such revised Guidelines shall be a final Agency action for purposes of section 7607 of this title.

(p) Mickey Leland National Urban Air Toxics Research Center

(1) Establishment

The Administrator shall oversee the establishment of a National Urban Air Toxics Research Center, to be located at a university, a hospital, or other facility capable of undertaking and maintaining similar research capabilities in the areas

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of epidemiology, oncology, toxicology, pulmonary medicine, pathology, and biostatistics. The center shall be known as the Mickey Leland National Urban Air Toxics Research Center. The geographic site of the National Urban Air Toxics Research Center should be further directed to Harris County, Texas, in order to take full advantage of the well developed scientific community presence on-site at the Texas Medical Center as well as the extensive data previously compiled for the comprehensive monitoring system currently in place.

(2) Board of Directors

The National Urban Air Toxics Research Center shall be governed by a Board of Directors to be comprised of 9 members, the appointment of which shall be allocated pro rata among the Speaker of the House, the Majority Leader of the Senate and the President. The members of the Board of Directors shall be selected based on their respective academic and professional backgrounds and expertise in matters relating to public health, environmental pollution and industrial hygiene. The duties of the Board of Directors shall be to determine policy and research guidelines, submit views from center sponsors and the public and issue periodic reports of center findings and activities.

(3) Scientific Advisory Panel

The Board of Directors shall be advised by a Scientific Advisory Panel, the 13 members of which shall be appointed by the Board, and to include eminent members of the scientific and medical communities. The Panel membership may include scientists with relevant experience from the National Institute of Environmental Health Sciences, the Center for Disease Control, the Environmental Protection Agency, the National Cancer Institute, and others, and the Panel shall conduct peer review and evaluate research results. The Panel shall assist the Board in developing the research agenda, reviewing proposals and applications, and advise on the awarding of research grants.

(4) Funding

The center shall be established and funded with both Federal and private source funds.

(q) Savings provision

(1) Standards previously promulgated

Any standard under this section in effect before the date of enactment of the Clean Air Act Amendments of 1990 [Nov. 15, 1990] shall remain in force and effect after such date unless modified as provided in this section before the date of enactment of such Amendments or under such Amendments. Except as provided in paragraph (4), any standard under this section which has been promulgated, but has not taken effect, before such date shall not be affected by such Amendments unless modified as provided in this section before such date or under such Amendments. Each such standard shall be reviewed and, if appropriate, revised, to comply with the requirements of subsection (d) of this section within 10 years after the date of enactment of the Clean Air Act Amendments of 1990. If a timely petition for review of any such standard under section 7607 of this title is pending on such date of enactment, the standard shall be upheld if it complies with this section as in effect before that date. If any such standard is remanded to the Administrator, the Administrator may in the Administrator's discretion apply either the requirements of this section, or those of this section as in effect before the date of enactment of the Clean Air Act Amendments of 1990.

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(2) Special rule

Notwithstanding paragraph (1), no standard shall be established under this section, as amended by the Clean Air Act Amendments of 1990, for radionuclide emissions from (A) elemental phosphorous plants, (B) grate calcination elemental phosphorous plants, (C) phosphogypsum stacks, or (D) any subcategory of the foregoing. This section, as in effect prior to the date of enactment of the Clean Air Act Amendments of 1990 [November 15, 1990], shall remain in effect for radionuclide emissions from such plants and stacks.

(3) Other categories

Notwithstanding paragraph (1), this section, as in effect prior to the date of enactment of the Clean Air Act Amendments of 1990 [Nov. 15, 1990], shall remain in effect for radionuclide emissions from non-Department of Energy Federal facilities that are not licensed by the Nuclear Regulatory Commission, coal-fired utility and industrial boilers, underground uranium mines, surface uranium mines, and disposal of uranium mill tailings piles, unless the Administrator, in the Administrator's discretion, applies the requirements of this section as modified by the Clean Air Act Amendments of 1990 to such sources of radionuclides.

(4) Medical facilities

Notwithstanding paragraph (1), no standard promulgated under this section prior to November 15, 1990, with respect to medical research or treatment facilities shall take effect for two years following November 15, 1990, unless the Administrator makes a determination pursuant to a rulemaking under subsection (d)(9) of this section. If the Administrator determines that the regulatory program established by the Nuclear Regulatory Commission for such facilities does not provide an ample margin of safety to protect public health, the requirements of this section shall fully apply to such facilities. If the Administrator determines that such regulatory program does provide an ample margin of safety to protect the public health, the Administrator is not required to promulgate a standard under this section for such facilities, as provided in subsection (d)(9) of this section.

(r) Prevention of accidental releases

(1) Purpose and general duty

It shall be the objective of the regulations and programs authorized under this subsection to prevent the accidental release and to minimize the consequences of any such release of any substance listed pursuant to paragraph (3) or any other extremely hazardous substance. The owners and operators of stationary sources producing, processing, handling or storing such substances have a general duty in the same manner and to the same extent as section 654 of Title 29 to identify hazards which may result from such releases using appropriate hazard assessment techniques, to design and maintain a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of accidental releases which do occur. For purposes of this paragraph, the provisions of section 7604 of this title shall not be available to any person or otherwise be construed to be applicable to this paragraph. Nothing in this section shall be interpreted, construed, implied or applied to create any liability or basis for suit for compensation for bodily injury or any other injury or property damages to any person which may result from accidental releases of such substances.

(2) Definitions

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(A) The term "accidental release" means an unanticipated emission of a regulated substance or other extremely hazardous substance into the ambient air from a stationary source.

(B) The term "regulated substance" means a substance listed under paragraph (3).

(C) The term "stationary source" means any buildings, structures, equipment, installations or substance emitting stationary activities (i) which belong to the same industrial group, (ii) which are located on one or more contiguous properties, (iii) which are under the control of the same person (or persons under common control), and (iv) from which an accidental release may occur.

(D) The term "retail facility" means a stationary source at which more than one-half of the income is obtained from direct sales to end users or at which more than one-half of the fuel sold, by volume, is sold through a cylinder exchange program.

(3) List of substances

The Administrator shall promulgate not later than 24 months after November 15, 1990, an initial list of 100 substances which, in the case of an accidental release, are known to cause or may reasonably be anticipated to cause death, injury, or serious adverse effects to human health or the environment. For purposes of promulgating such list, the Administrator shall use, but is not limited to, the list of extremely hazardous substances published under the Emergency Planning and Community Right-to-Know Act of 1986 [42 U.S.C.A. § 11001 et seq.], with such modifications as the Administrator deems appropriate. The initial list shall include chlorine, anhydrous ammonia, methyl chloride, ethylene oxide, vinyl chloride, methyl isocyanate, hydrogen cyanide, ammonia, hydrogen sulfide, toluene diisocyanate, phosgene, bromine, anhydrous hydrogen chloride, hydrogen fluoride, anhydrous sulfur dioxide, and sulfur trioxide. The initial list shall include at least 100 substances which pose the greatest risk of causing death, injury, or serious adverse effects to human health or the environment from accidental releases. Regulations establishing the list shall include an explanation of the basis for establishing the list. The list may be revised from time to time by the Administrator on the Administrator's own motion or by petition and shall be reviewed at least every 5 years. No air pollutant for which a national primary ambient air quality standard has been established shall be included on any such list. No substance, practice, process, or activity regulated under subchapter VI of this chapter shall be subject to regulations under this subsection. The Administrator shall establish procedures for the addition and deletion of substances from the list established under this paragraph consistent with those applicable to the list in subsection (b) of this section.

(4) Factors to be considered

In listing substances under paragraph (3), the Administrator--

(A) shall consider--

(i) the severity of any acute adverse health effects associated with accidental releases of the substance;

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(ii) the likelihood of accidental releases of the substance; and

(iii) the potential magnitude of human exposure to accidental releases of the substance; and

(B) shall not list a flammable substance when used as a fuel or held for sale as a fuel at a retail facility under this subsection solely because of the explosive or flammable properties of the substance, unless a fire or explosion caused by the substance will result in acute adverse health effects from human exposure to the substance, including the unburned fuel or its combustion byproducts, other than those caused by the heat of the fire or impact of the explosion.

(5) Threshold quantity

At the time any substance is listed pursuant to paragraph (3), the Administrator shall establish by rule, a threshold quantity for the substance, taking into account the toxicity, reactivity, volatility, dispersibility, combustibility, or flammability of the substance and the amount of the substance which, as a result of an accidental release, is known to cause or may reasonably be anticipated to cause death, injury or serious adverse effects to human health for which the substance was listed. The Administrator is authorized to establish a greater threshold quantity for, or to exempt entirely, any substance that is a nutrient used in agriculture when held by a farmer.

(6) Chemical Safety Board

(A) There is hereby established an independent safety board to be known as the Chemical Safety and Hazard Investigation Board.

(B) The Board shall consist of 5 members, including a Chairperson, who shall be appointed by the President, by and with the advice and consent of the Senate. Members of the Board shall be appointed on the basis of technical qualification, professional standing, and demonstrated knowledge in the fields of accident reconstruction, safety engineering, human factors, toxicology, or air pollution regulation. The terms of office of members of the Board shall be 5 years. Any member of the Board, including the Chairperson, may be removed for inefficiency, neglect of duty, or malfeasance in office. The Chairperson shall be the Chief Executive Officer of the Board and shall exercise the executive and administrative functions of the Board.

(C) The Board shall--

(i) investigate (or cause to be investigated), determine and report to the public in writing the facts, conditions, and circumstances and the cause or probable cause of any accidental release resulting in a fatality, serious injury or substantial property damages;

(ii) issue periodic reports to the Congress, Federal, State and local agencies, including the Environmental Protection Agency and the Occupational Safety and Health Administration, concerned with the safety of chemical production, processing, handling and storage, and other interested persons recommending measures to reduce the likelihood or

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the consequences of accidental releases and proposing corrective steps to make chemical production, processing, handling and storage as safe and free from risk of injury as is possible and may include in such reports proposed rules or orders which should be issued by the Administrator under the authority of this section or the Secretary of Labor under the Occupational Safety and Health Act [29 U.S.C.A. § 651 et seq.] to prevent or minimize the consequences of any release of substances that may cause death, injury or other serious adverse effects on human health or substantial property damage as the result of an accidental release; and

(iii) establish by regulation requirements binding on persons for reporting accidental releases into the ambient air subject to the Board's investigatory jurisdiction. Reporting releases to the National Response Center, in lieu of the Board directly, shall satisfy such regulations. The National Response Center shall promptly notify the Board of any releases which are within the Board's jurisdiction.

(D) The Board may utilize the expertise and experience of other agencies.

(E) The Board shall coordinate its activities with investigations and studies conducted by other agencies of the United States having a responsibility to protect public health and safety. The Board shall enter into a memorandum of understanding with the National Transportation Safety Board to assure coordination of functions and to limit duplication of activities which shall designate the National Transportation Safety Board as the lead agency for the investigation of releases which are transportation related. The Board shall not be authorized to investigate marine oil spills, which the National Transportation Safety Board is authorized to investigate. The Board shall enter into a memorandum of understanding with the Occupational Safety and Health Administration so as to limit duplication of activities. In no event shall the Board forego an investigation where an accidental release causes a fatality or serious injury among the general public, or had the potential to cause substantial property damage or a number of deaths or injuries among the general public.

(F) The Board is authorized to conduct research and studies with respect to the potential for accidental releases, whether or not an accidental release has occurred, where there is evidence which indicates the presence of a potential hazard or hazards. To the extent practicable, the Board shall conduct such studies in cooperation with other Federal agencies having emergency response authorities, State and local governmental agencies and associations and organizations from the industrial, commercial, and nonprofit sectors.

(G) No part of the conclusions, findings, or recommendations of the Board relating to any accidental release or the investigation thereof shall be admitted as evidence or used in any action or suit for damages arising out of any matter mentioned in such report.

(H) Not later than 18 months after November 15, 1990, the Board shall publish a report accompanied by recommendations to the Administrator on the use of hazard assessments in preventing the occurrence and minimizing the consequences of accidental releases of extremely hazardous substances. The recommendations shall include a list of extremely hazardous substances which are not regulated substances (including threshold quantities for such substances) and categories of stationary sources for which hazard assessments would be an appropriate measure to aid in the prevention of accidental releases and to minimize the consequences of those releases that do occur. The recommendations shall also include a description of the information and analysis which would be appropriate to include in any hazard as-

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sessment. The Board shall also make recommendations with respect to the role of risk management plans as required by paragraph (8)(B) [FN4] in preventing accidental releases. The Board may from time to time review and revise its recommendations under this subparagraph.

(I) Whenever the Board submits a recommendation with respect to accidental releases to the Administrator, the Administrator shall respond to such recommendation formally and in writing not later than 180 days after receipt thereof. The response to the Board's recommendation by the Administrator shall indicate whether the Administrator will--

(i) initiate a rulemaking or issue such orders as are necessary to implement the recommendation in full or in part, pursuant to any timetable contained in the recommendation;

(ii) decline to initiate a rulemaking or issue orders as recommended.

Any determination by the Administrator not to implement a recommendation of the Board or to implement a recommendation only in part, including any variation from the schedule contained in the recommendation, shall be accompanied by a statement from the Administrator setting forth the reasons for such determination.

(J) The Board may make recommendations with respect to accidental releases to the Secretary of Labor. Whenever the Board submits such recommendation, the Secretary shall respond to such recommendation formally and in writing not later than 180 days after receipt thereof. The response to the Board's recommendation by the Administrator shall indicate whether the Secretary will--

(i) initiate a rulemaking or issue such orders as are necessary to implement the recommendation in full or in part, pursuant to any timetable contained in the recommendation;

(ii) decline to initiate a rulemaking or issue orders as recommended.

Any determination by the Secretary not to implement a recommendation or to implement a recommendation only in part, including any variation from the schedule contained in the recommendation, shall be accompanied by a statement from the Secretary setting forth the reasons for such determination.

(K) Within 2 years after November 15, 1990, the Board shall issue a report to the Administrator of the Environmental Protection Agency and to the Administrator of the Occupational Safety and Health Administration recommending the adoption of regulations for the preparation of risk management plans and general requirements for the prevention of accidental releases of regulated substances into the ambient air (including recommendations for listing substances under paragraph (3)) and for the mitigation of the potential adverse effect on human health or the environment as a result of accidental releases which should be applicable to any stationary source handling any regulated substance in more than threshold amounts. The Board may include proposed rules or orders which should be issued by the Administrator under authority of this subsection or by the Secretary of Labor under the Occupational Safety and Health Act [29 U.S.C.A. § 651 et seq.]. Any such recommendations shall be specific and shall identify the regulated substance or class

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of regulated substances (or other substances) to which the recommendations apply. The Administrator shall consider such recommendations before promulgating regulations required by paragraph (7)(B).

(L) The Board, or upon authority of the Board, any member thereof, any administrative law judge employed by or assigned to the Board, or any officer or employee duly designated by the Board, may for the purpose of carrying out duties authorized by subparagraph (C)--

(i) hold such hearings, sit and act at such times and places, administer such oaths, and require by subpoena or otherwise attendance and testimony of such witnesses and the production of evidence and may require by order that any person engaged in the production, processing, handling, or storage of extremely hazardous substances submit written reports and responses to requests and questions within such time and in such form as the Board may require; and

(ii) upon presenting appropriate credentials and a written notice of inspection authority, enter any property where an accidental release causing a fatality, serious injury or substantial property damage has occurred and do all things therein necessary for a proper investigation pursuant to subparagraph (C) and inspect at reasonable times records, files, papers, processes, controls, and facilities and take such samples as are relevant to such investigation.

Whenever the Administrator or the Board conducts an inspection of a facility pursuant to this subsection, employees and their representatives shall have the same rights to participate in such inspections as provided in the Occupational Safety and Health Act [29 U.S.C.A. § 651 et seq.].

(M) In addition to that described in subparagraph (L), the Board may use any information gathering authority of the Administrator under this chapter, including the subpoena power provided in section 7607(a)(1) of this title.

(N) The Board is authorized to establish such procedural and administrative rules as are necessary to the exercise of its functions and duties. The Board is authorized without regard to section 6101 of Title 41 to enter into contracts, leases, cooperative agreements or other transactions as may be necessary in the conduct of the duties and functions of the Board with any other agency, institution, or person.

(O) After the effective date of any reporting requirement promulgated pursuant to subparagraph (C)(iii) it shall be unlawful for any person to fail to report any release of any extremely hazardous substance as required by such subparagraph. The Administrator is authorized to enforce any regulation or requirements established by the Board pursuant to subparagraph (C)(iii) using the authorities of sections 7413 and 7414 of this title. Any request for information from the owner or operator of a stationary source made by the Board or by the Administrator under this section shall be treated, for purposes of sections 7413, 7414, 7416, 7420, 7603, 7604 and 7607 of this title and any other enforcement provisions of this chapter, as a request made by the Administrator under section 7414 of this title and may be enforced by the Chairperson of the Board or by the Administrator as provided in such section.

(P) The Administrator shall provide to the Board such support and facilities as may be necessary for operation of the Board.

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(Q) Consistent with subsection (G) [FN5] and section 7414(c) of this title any records, reports or information obtained by the Board shall be available to the Administrator, the Secretary of Labor, the Congress and the public, except that upon a showing satisfactory to the Board by any person that records, reports, or information, or particular part thereof (other than release or emissions data) to which the Board has access, if made public, is likely to cause substantial harm to the person's competitive position, the Board shall consider such record, report, or information or particular portion thereof confidential in accordance with section 1905 of Title 18, except that such record, report, or information may be disclosed to other officers, employees, and authorized representatives of the United States concerned with carrying out this chapter or when relevant under any proceeding under this chapter. This subparagraph does not constitute authority to withhold records, reports, or information from the Congress.

(R) Whenever the Board submits or transmits any budget estimate, budget request, supplemental budget request, or other budget information, legislative recommendation, prepared testimony for congressional hearings, recommendation or study to the President, the Secretary of Labor, the Administrator, or the Director of the Office of Management and Budget, it shall concurrently transmit a copy thereof to the Congress. No report of the Board shall be subject to review by the Administrator or any Federal agency or to judicial review in any court. No officer or agency of the United States shall have authority to require the Board to submit its budget requests or estimates, legislative recommendations, prepared testimony, comments, recommendations or reports to any officer or agency of the United States for approval or review prior to the submission of such recommendations, testimony, comments or reports to the Congress. In the performance of their functions as established by this chapter, the members, officers and employees of the Board shall not be responsible to or subject to supervision or direction, in carrying out any duties under this subsection, of any officer or employee or agent of the Environmental Protection Agency, the Department of Labor or any other agency of the United States except that the President may remove any member, officer or employee of the Board for inefficiency, neglect of duty or malfeasance in office. Nothing in this section shall affect the application of Title 5 to officers or employees of the Board.

(S) The Board shall submit an annual report to the President and to the Congress which shall include, but not be limited to, information on accidental releases which have been investigated by or reported to the Board during the previous year, recommendations for legislative or administrative action which the Board has made, the actions which have been taken by the Administrator or the Secretary of Labor or the heads of other agencies to implement such recommendations, an identification of priorities for study and investigation in the succeeding year, progress in the development of risk-reduction technologies and the response to and implementation of significant research findings on chemical safety in the public and private sector.

(7) Accident prevention

(A) In order to prevent accidental releases of regulated substances, the Administrator is authorized to promulgate release prevention, detection, and correction requirements which may include monitoring, record-keeping, reporting, training, vapor recovery, secondary containment, and other design, equipment, work practice, and operational requirements. Regulations promulgated under this paragraph may make distinctions between various types, classes, and kinds of facilities, devices and systems taking into consideration factors including, but not limited to, the size, location, process, process controls, quantity of substances handled, potency of substances, and response capabilities present at any stationary source. Regulations promulgated pursuant to this subparagraph shall have an effective date, as determined by the Administrator, assuring compliance as expeditiously as practicable.

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(B)(i) Within 3 years after November 15, 1990, the Administrator shall promulgate reasonable regulations and appropriate guidance to provide, to the greatest extent practicable, for the prevention and detection of accidental releases of regulated substances and for response to such releases by the owners or operators of the sources of such releases. The Administrator shall utilize the expertise of the Secretaries of Transportation and Labor in promulgating such regulations. As appropriate, such regulations shall cover the use, operation, repair, replacement, and maintenance of equipment to monitor, detect, inspect, and control such releases, including training of persons in the use and maintenance of such equipment and in the conduct of periodic inspections. The regulations shall include procedures and measures for emergency response after an accidental release of a regulated substance in order to protect human health and the environment. The regulations shall cover storage, as well as operations. The regulations shall, as appropriate, recognize differences in size, operations, processes, class and categories of sources and the voluntary actions of such sources to prevent such releases and respond to such releases. The regulations shall be applicable to a stationary source 3 years after the date of promulgation, or 3 years after the date on which a regulated substance present at the source in more than threshold amounts is first listed under paragraph (3), whichever is later.

(ii) The regulations under this subparagraph shall require the owner or operator of stationary sources at which a regulated substance is present in more than a threshold quantity to prepare and implement a risk management plan to detect and prevent or minimize accidental releases of such substances from the stationary source, and to provide a prompt emergency response to any such releases in order to protect human health and the environment. Such plan shall provide for compliance with the requirements of this subsection and shall also include each of the following:

(I) a hazard assessment to assess the potential effects of an accidental release of any regulated substance. This assessment shall include an estimate of potential release quantities and a determination of downwind effects, including potential exposures to affected populations. Such assessment shall include a previous release history of the past 5 years, including the size, concentration, and duration of releases, and shall include an evaluation of worst case accidental releases;

(II) a program for preventing accidental releases of regulated substances, including safety precautions and maintenance, monitoring and employee training measures to be used at the source; and

(III) a response program providing for specific actions to be taken in response to an accidental release of a regulated substance so as to protect human health and the environment, including procedures for informing the public and local agencies responsible for responding to accidental releases, emergency health care, and employee training measures.

At the time regulations are promulgated under this subparagraph, the Administrator shall promulgate guidelines to assist stationary sources in the preparation of risk management plans. The guidelines shall, to the extent practicable, include model risk management plans.

(iii) The owner or operator of each stationary source covered by clause (ii) shall register a risk management plan prepared under this subparagraph with the Administrator before the effective date of regulations under clause (i) in such form and manner as the Administrator shall, by rule, require. Plans prepared pursuant to this subparagraph shall also be submitted to the Chemical Safety and Hazard Investigation Board, to the State in which the stationary source is loc-

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ated, and to any local agency or entity having responsibility for planning for or responding to accidental releases which may occur at such source, and shall be available to the public under section 7414(c) of this title. The Administrator shall establish, by rule, an auditing system to regularly review and, if necessary, require revision in risk management plans to assure that the plans comply with this subparagraph. Each such plan shall be updated periodically as required by the Administrator, by rule.

(C) Any regulations promulgated pursuant to this subsection shall to the maximum extent practicable, consistent with this subsection, be consistent with the recommendations and standards established by the American Society of Mechanical Engineers (ASME), the American National Standards Institute (ANSI) or the American Society of Testing Materials (ASTM). The Administrator shall take into consideration the concerns of small business in promulgating regulations under this subsection.

(D) In carrying out the authority of this paragraph, the Administrator shall consult with the Secretary of Labor and the Secretary of Transportation and shall coordinate any requirements under this paragraph with any requirements established for comparable purposes by the Occupational Safety and Health Administration or the Department of Transportation. Nothing in this subsection shall be interpreted, construed or applied to impose requirements affecting, or to grant the Administrator, the Chemical Safety and Hazard Investigation Board, or any other agency any authority to regulate (including requirements for hazard assessment), the accidental release of radionuclides arising from the construction and operation of facilities licensed by the Nuclear Regulatory Commission.

(E) After the effective date of any regulation or requirement imposed under this subsection, it shall be unlawful for any person to operate any stationary source subject to such regulation or requirement in violation of such regulation or requirement. Each regulation or requirement under this subsection shall for purposes of sections 7413, 7414, 7416, 7420, 7604, and 7607 of this title and other enforcement provisions of this chapter, be treated as a standard in effect under subsection (d) of this section.

(F) Notwithstanding the provisions of subchapter V of this chapter or this section, no stationary source shall be required to apply for, or operate pursuant to, a permit issued under such subchapter solely because such source is subject to regulations or requirements under this subsection.

(G) In exercising any authority under this subsection, the Administrator shall not, for purposes of section 653(b)(1) of Title 29, be deemed to be exercising statutory authority to prescribe or enforce standards or regulations affecting occupational safety and health.

(H) Public access to off-site consequence analysis information

(i) Definitions

In this subparagraph:

(I) Covered person

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The term "covered person" means--

(aa) an officer or employee of the United States;

(bb) an officer or employee of an agent or contractor of the Federal Government;

(cc) an officer or employee of a State or local government;

(dd) an officer or employee of an agent or contractor of a State or local government;

(ee) an individual affiliated with an entity that has been given, by a State or local government, responsibility for preventing, planning for, or responding to accidental releases;

(ff) an officer or employee or an agent or contractor of an entity described in item (ee); and

(gg) a qualified researcher under clause (vii).

(II) Official use

The term "official use" means an action of a Federal, State, or local government agency or an entity referred to in subclause (I)(ee) intended to carry out a function relevant to preventing, planning for, or responding to accidental releases.

(III) Off-site consequence analysis information

The term "off-site consequence analysis information" means those portions of a risk management plan, excluding the executive summary of the plan, consisting of an evaluation of 1 or more worst-case release scenarios or alternative release scenarios, and any electronic data base created by the Administrator from those portions.

(IV) Risk management plan

The term "risk management plan" means a risk management plan submitted to the Administrator by an owner or operator of a stationary source under subparagraph (B)(iii).

(ii) Regulations

Not later than 1 year after the date of enactment of this subparagraph, the President shall--

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(I) assess--

(aa) the increased risk of terrorist and other criminal activity associated with the posting of off-site consequence analysis information on the Internet; and

(bb) the incentives created by public disclosure of off-site consequence analysis information for reduction in the risk of accidental releases; and

(II) based on the assessment under subclause (I), promulgate regulations governing the distribution of off-site consequence analysis information in a manner that, in the opinion of the President, minimizes the likelihood of accidental releases and the risk described in subclause (I)(aa) and the likelihood of harm to public health and welfare, and--

(aa) allows access by any member of the public to paper copies of off-site consequence analysis information for a limited number of stationary sources located anywhere in the United States, without any geographical restriction;

(bb) allows other public access to off-site consequence analysis information as appropriate;

(cc) allows access for official use by a covered person described in any of items (cc) through (ff) of clause (i)(I) (referred to in this subclause as a 'State or local covered person') to off-site consequence analysis information relating to stationary sources located in the person's State;

(dd) allows a State or local covered person to provide, for official use, off-site consequence analysis information relating to stationary sources located in the person's State to a State or local covered person in a contiguous State; and

(ee) allows a State or local covered person to obtain for official use, by request to the Administrator, off-site consequence analysis information that is not available to the person under item (cc).

(iii) Availability under freedom of information act

(I) First year

Off-site consequence analysis information, and any ranking of stationary sources derived from the information, shall not be made available under section 552 of Title 5, during the 1-year period beginning on the date of enactment of this subparagraph.

(II) After first year

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If the regulations under clause (ii) are promulgated on or before the end of the period described in subclause (I), off-site consequence analysis information covered by the regulations, and any ranking of stationary sources derived from the information, shall not be made available under section 552 of Title 5, after the end of that period.

(III) Applicability

Subclauses (I) and (II) apply to off-site consequence analysis information submitted to the Administrator before, on, or after the date of enactment of this subparagraph.

(iv) Availability of information during transition period

The Administrator shall make off-site consequence analysis information available to covered persons for official use in a manner that meets the requirements of items (cc)through (ee) of clause (ii)(II), and to the public in a form that does not make available any information concerning the identity or location of stationary sources, during the period--

(I) beginning on the date of enactment of this subparagraph; and

(II) ending on the earlier of the date of promulgation of the regulations under clause (ii) or the date that is 1 year after the date of enactment of this subparagraph.

(v) Prohibition on unauthorized disclosure of information by covered persons

(I) In general

Beginning on the date of enactment of this subparagraph, a covered person shall not disclose to the public off-site consequence analysis information in any form, or any statewide or national ranking of identified stationary sources derived from such information, except as authorized by this subparagraph (including the regulations promulgated under clause (ii)). After the end of the 1-year period beginning on the date of enactment of this subparagraph, if regulations have not been promulgated under clause (ii), the preceding sentence shall not apply.

(II) Criminal penalties

Notwithstanding section 7413 of this title, a covered person that willfully violates a restriction or prohibition established by this subparagraph (including the regulations promulgated under clause (ii)) shall, upon conviction, be fined for an infraction under section 3571 of Title 18, (but shall not be subject to imprisonment) for each unauthorized disclosure of off-site consequence analysis information, except that subsection (d) of such section 3571 shall not apply to a case in which the offense results in pecuniary loss unless the defendant knew that such loss would occur. The disclosure of off-site consequence analysis information for each specific stationary source shall be considered a separate offense. The total of all penalties that may be imposed on a single person or organization under this item shall not exceed $1,000,000 for violations committed during any 1 calendar year.

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(III) Applicability

If the owner or operator of a stationary source makes off-site consequence analysis information relating to that stationary source available to the public without restriction--

(aa) subclauses (I) and (II) shall not apply with respect to the information; and

(bb) the owner or operator shall notify the Administrator of the public availability of the information.

(IV) List

The Administrator shall maintain and make publicly available a list of all stationary sources that have provided notification under subclause (III)(bb).

(vi) Notice

The Administrator shall provide notice of the definition of official use as provided in clause (i)(III) and examples of actions that would and would not meet that definition, and notice of the restrictions on further dissemination and the penalties established by this Act to each covered person who receives off-site consequence analysis information under clause (iv) and each covered person who receives off-site consequence analysis information for an official use under the regulations promulgated under clause (ii).

(vii) Qualified researchers

(I) In general

Not later than 180 days after the date of enactment of this subparagraph, the Administrator, in consultation with the Attorney General, shall develop and implement a system for providing off-site consequence analysis information, including facility identification, to any qualified researcher, including a qualified researcher from industry or any public interest group.

(II) Limitation on dissemination

The system shall not allow the researcher to disseminate, or make available on the Internet, the off-site consequence analysis information, or any portion of the off-site consequence analysis information, received under this clause.

(viii) Read-only information technology system

In consultation with the Attorney General and the heads of other appropriate Federal agencies, the Administrator

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shall establish an information technology system that provides for the availability to the public of off-site consequence analysis information by means of a central data base under the control of the Federal Government that contains information that users may read, but that provides no means by which an electronic or mechanical copy of the information may be made.

(ix) Voluntary industry accident prevention standards

The Environmental Protection Agency, the Department of Justice, and other appropriate agencies may provide technical assistance to owners and operators of stationary sources and participate in the development of voluntary industry standards that will help achieve the objectives set forth in paragraph (1).

(x) Effect on State or local law

(I) In general

Subject to subclause (II), this subparagraph (including the regulations promulgated under this subparagraph) shall supersede any provision of State or local law that is inconsistent with this subparagraph (including the regulations).

(II) Availability of information under State law

Nothing in this subparagraph precludes a State from making available data on the off-site consequences of chemical releases collected in accordance with State law.

(xi) Report

(I) In general

Not later than 3 years after the date of enactment of this subparagraph, the Attorney General, in consultation with appropriate State, local, and Federal Government agencies, affected industry, and the public, shall submit to Congress a report that describes the extent to which regulations promulgated under this paragraph have resulted in actions, including the design and maintenance of safe facilities, that are effective in detecting, preventing, and minimizing the consequences of releases of regulated substances that may be caused by criminal activity. As part of this report, the Attorney General, using available data to the extent possible, and a sampling of covered stationary sources selected at the discretion of the Attorney General, and in consultation with appropriate State, local, and Federal governmental agencies, affected industry, and the public, shall review the vulnerability of covered stationary sources to criminal and terrorist activity, current industry practices regarding site security, and security of transportation of regulated substances. The Attorney General shall submit this report, containing the results of the review, together with recommendations, if any, for reducing vulnerability of covered stationary sources to criminal and terrorist activity, to the Committee on Commerce of the United States House of Representatives and the Committee on Environment and Public Works of the United States Senate and other relevant committees of Congress.

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(II) Interim report

Not later than 12 months after the date of enactment of this subparagraph, the Attorney General shall submit to the Committee on Commerce of the United States House of Representatives and the Committee on Environment and Public Works of the United States Senate, and other relevant committees of Congress, an interim report that includes, at a minimum--

(aa) the preliminary findings under subclause (I);

(bb) the methods used to develop the findings; and

(cc) an explanation of the activities expected to occur that could cause the findings of the report under subclause (I) to be different than the preliminary findings.

(III) Availability of information

Information that is developed by the Attorney General or requested by the Attorney General and received from a covered stationary source for the purpose of conducting the review under subclauses(I) and (II) shall be exempt from disclosure under section 552 of Title 5, if such information would pose a threat to national security.

(xii) Scope

This subparagraph--

(I) applies only to covered persons; and

(II) does not restrict the dissemination of off-site consequence analysis information by any covered person in any manner or form except in the form of a risk management plan or an electronic data base created by the Administrator from off-site consequence analysis information.

(xiii) Authorization of appropriations

There are authorized to be appropriated to the Administrator and the Attorney General such sums as are necessary to carry out this subparagraph (including the regulations promulgated under clause (ii)), to remain available until expended.

(8) Research on hazard assessments

The Administrator may collect and publish information on accident scenarios and consequences covering a range of possible events for substances listed under paragraph (3). The Administrator shall establish a program of long-term re-

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search to develop and disseminate information on methods and techniques for hazard assessment which may be useful in improving and validating the procedures employed in the preparation of hazard assessments under this subsection.

(9) Order authority

(A) In addition to any other action taken, when the Administrator determines that there may be an imminent and substantial endangerment to the human health or welfare or the environment because of an actual or threatened accidental release of a regulated substance, the Administrator may secure such relief as may be necessary to abate such danger or threat, and the district court of the United States in the district in which the threat occurs shall have jurisdiction to grant such relief as the public interest and the equities of the case may require. The Administrator may also, after notice to the State in which the stationary source is located, take other action under this paragraph including, but not limited to, issuing such orders as may be necessary to protect human health. The Administrator shall take action under section 7603 of this title rather than this paragraph whenever the authority of such section is adequate to protect human health and the environment.

(B) Orders issued pursuant to this paragraph may be enforced in an action brought in the appropriate United States district court as if the order were issued under section 7603 of this title.

(C) Within 180 days after November 15, 1990, the Administrator shall publish guidance for using the order authorities established by this paragraph. Such guidance shall provide for the coordinated use of the authorities of this paragraph with other emergency powers authorized by section 9606 of this title, sections 311(c), 308, 309 and 504(a) of the Federal Water Pollution Control Act [33 U.S.C.A. §§ 1321(c), 1318, 1319 and 1364(a)], sections 3007, 3008, 3013, and 7003 of the Solid Waste Disposal Act [42 U.S.C.A. §§ 6927, 6928, 6934, and 6973], sections 1445 and 1431 of the Safe Drinking Water Act [42 U.S.C.A. §§ 300j-4 and 300i], sections 5 and 7 of the Toxic Substances Control Act [15 U.S.C.A. §§ 2604, 2606], and sections 7413, 7414, and 7603 of this title.

(10) Presidential review

The President shall conduct a review of release prevention, mitigation and response authorities of the various Federal agencies and shall clarify and coordinate agency responsibilities to assure the most effective and efficient implementation of such authorities and to identify any deficiencies in authority or resources which may exist. The President may utilize the resources and solicit the recommendations of the Chemical Safety and Hazard Investigation Board in conducting such review. At the conclusion of such review, but not later than 24 months after November 15, 1990, the President shall transmit a message to the Congress on the release prevention, mitigation and response activities of the Federal Government making such recommendations for change in law as the President may deem appropriate. Nothing in this paragraph shall be interpreted, construed or applied to authorize the President to modify or reassign release prevention, mitigation or response authorities otherwise established by law.

(11) State authority

Nothing in this subsection shall preclude, deny or limit any right of a State or political subdivision thereof to adopt or enforce any regulation, requirement, limitation or standard (including any procedural requirement) that is more stringent than a regulation, requirement, limitation or standard in effect under this subsection or that applies to a substance

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not subject to this subsection.

(s) Periodic report

Not later than January 15, 1993 and every 3 years thereafter, the Administrator shall prepare and transmit to the Congress a comprehensive report on the measures taken by the Agency and by the States to implement the provisions of this section. The Administrator shall maintain a database on pollutants and sources subject to the provisions of this section and shall include aggregate information from the database in each annual report. The report shall include, but not be limited to--

(1) a status report on standard-setting under subsections (d) and (f) of this section;

(2) information with respect to compliance with such standards including the costs of compliance experienced by sources in various categories and subcategories;

(3) development and implementation of the national urban air toxics program; and

(4) recommendations of the Chemical Safety and Hazard Investigation Board with respect to the prevention and mitigation of accidental releases.

CREDIT(S)

(July 14, 1955, c. 360, Title I, § 112, as added Dec. 31, 1970, Pub.L. 91-604, § 4(a), 84 Stat. 1685; amended Aug. 7, 1977, Pub.L. 95-95, Title I, §§ 109(d)(2), 110, Title IV, § 401(c), 91 Stat. 701, 703, 791; Nov. 9, 1978, Pub.L. 95-623, § 13(b), 92 Stat. 3458; Nov. 15, 1990, Pub.L. 101-549, Title III, § 301, 104 Stat. 2531; Dec. 4, 1991, Pub.L. 102-187, 105 Stat. 1285; Nov. 10, 1998, Pub.L. 105-362, Title IV, § 402(b), 112 Stat. 3283; Aug. 5, 1999, Pub.L. 106-40, §§ 2, 3(a), 113 Stat. 207.)

[FN1] So in original. Probably should be “effects”.

[FN2] So in original.

[FN3] So in original. Probably should be “section”.

[FN4] So in original. Probably should be paragraph “(7)(B)”.

[FN5] So in original. Probably should be “subparagraph”.

Current through P.L. 112-174 (excluding P.L. 112-140, 112-141, and 112-166) approved 9-20-12.

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END OF DOCUMENT

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Effective:[See Text Amendments]

United States Code Annotated Currentness
Title 42. The Public Health and Welfare
Chapter 85. Air Pollution Prevention and Control (Refs & Annos)
Subchapter I. Programs and Activities
Part A. Air Quality and Emissions Limitations (Refs & Annos)

§ 7414. Recordkeeping, inspections, monitoring, and entry

(a) Authority of Administrator or authorized representative

For the purpose (i) of developing or assisting in the development of any implementation plan under section 7410 or section 7411(d) of this title, any standard of performance under section 7411 of this title, any emission standard under section 7412 of this title,, [FN1] or any regulation of solid waste combustion under section 7429 of this title, or any regulation under section 7429 of this title (relating to solid waste combustion), (ii) of determining whether any person is in violation of any such standard or any requirement of such a plan, or (iii) carrying out any provision of this chapter (except a provision of subchapter II of this chapter with respect to a manufacturer of new motor vehicles or new motor vehicle engines)--

(1) the Administrator may require any person who owns or operates any emission source, who manufactures emission control equipment or process equipment, who the Administrator believes may have information necessary for the purposes set forth in this subsection, or who is subject to any requirement of this chapter (other than a manufacturer subject to the provisions of section 7525(c) or 7542 of this title with respect to a provision of subchapter II of this chapter) on a one-time, periodic or continuous basis to--

(A) establish and maintain such records;

(B) make such reports;

(C) install, use, and maintain such monitoring equipment, and use such audit procedures, or methods;

(D) sample such emissions (in accordance with such procedures or methods, at such locations, at such intervals, during such periods and in such manner as the Administrator shall prescribe);

(E) keep records on control equipment parameters, production variables or other indirect data when direct monitoring of emissions is impractical;

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(F) submit compliance certifications in accordance with subsection (a)(3) of this section; and

(G) provide such other information as the Administrator may reasonably require; and

(2) the Administrator or his authorized representative, upon presentation of his credentials--

(A) shall have a right of entry to, upon, or through any premises of such person or in which any records required to be maintained under paragraph (1) of this section are located, and

(B) may at reasonable times have access to and copy any records, inspect any monitoring equipment or method required under paragraph (1), and sample any emissions which such person is required to sample under paragraph (1).[FN2]

(3) The [FN3] Administrator shall in the case of any person which is the owner or operator of a major stationary source, and may, in the case of any other person, require enhanced monitoring and submission of compliance certifications. Compliance certifications shall include (A) identification of the applicable requirement that is the basis of the certification, (B) the method used for determining the compliance status of the source, (C) the compliance status, (D) whether compliance is continuous or intermittent, (E) such other facts as the Administrator may require. Compliance certifications and monitoring data shall be subject to subsection (c) of this section. Submission of a compliance certification shall in no way limit the Administrator's authorities to investigate or otherwise implement this chapter. The Administrator shall promulgate rules to provide guidance and to implement this paragraph within 2 years after November 15, 1990.

(b) State enforcement

(1) Each State may develop and submit to the Administrator a procedure for carrying out this section in such State. If the Administrator finds the State procedure is adequate, he may delegate to such State any authority he has to carry out this section.

(2) Nothing in this subsection shall prohibit the Administrator from carrying out this section in a State.

(c) Availability of records, reports, and information to public; disclosure of trade secrets

Any records, reports or information obtained under subsection (a) of this section shall be available to the public, except that upon a showing satisfactory to the Administrator by any person that records, reports, or information, or particular part thereof, (other than emission data) to which the Administrator has access under this section if made public, would divulge methods or processes entitled to protection as trade secrets of such person, the Administrator shall consider such record, report, or information or particular portion thereof confidential in accordance with the purposes of section 1905 of Title 18, except that such record, report, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying

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out this chapter or when relevant in any proceeding under this chapter.

(d) Notice of proposed entry, inspection, or monitoring

(1) In the case of any emission standard or limitation or other requirement which is adopted by a State, as part of an applicable implementation plan or as part of an order under section 7413(d) of this title, before carrying out an entry, inspection, or monitoring under paragraph (2) of subsection (a) of this section with respect to such standard, limitation, or other requirement, the Administrator (or his representatives) shall provide the State air pollution control agency with reasonable prior notice of such action, indicating the purpose of such action. No State agency which receives notice under this paragraph of an action proposed to be taken may use the information contained in the notice to inform the person whose property is proposed to be affected of the proposed action. If the Administrator has reasonable basis for believing that a State agency is so using or will so use such information, notice to the agency under this paragraph is not required until such time as the Administrator determines the agency will no longer so use information contained in a notice under this paragraph. Nothing in this section shall be construed to require notification to any State agency of any action taken by the Administrator with respect to any standard, limitation, or other requirement which is not part of an applicable implementation plan or which was promulgated by the Administrator under section 7410(c) of this title.

(2) Nothing in paragraph (1) shall be construed to provide that any failure of the Administrator to comply with the requirements of such paragraph shall be a defense in any enforcement action brought by the Administrator or shall make inadmissible as evidence in any such action any information or material obtained notwithstanding such failure to comply with such requirements.

CREDIT(S)

(July 14, 1955, c. 360, Title I, § 114, as added Dec. 31, 1970, Pub.L. 91-604, § 4(a), 84 Stat. 1687; amended June 22, 1974, Pub.L. 93-319, § 6(a)(4), 88 Stat. 259; Aug. 7, 1977, Pub.L. 95-95, Title I, §§ 109(d)(3), 113, Title III, § 305(d), 91 Stat. 701, 709, 776; Nov. 16, 1977, Pub.L. 95-190, § 14(a)(22), (23), 91 Stat. 1400; Nov. 15, 1990, Pub.L. 101-549, Title III, § 302(c), Title VII, § 702(a), (b), 104 Stat. 2574, 2680, 2681.)

[FN1] So in original.

[FN2] The period probably should be “; and”.

[FN3] So in original. Probably should not be capitalized.

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Title 42. The Public Health and Welfare
Chapter 85. Air Pollution Prevention and Control (Refs & Annos)
Subchapter I. Programs and Activities
Part A. Air Quality and Emissions Limitations (Refs & Annos)

§ 7423. Stack heights

(a) Heights in excess of good engineering practice; other dispersion techniques

The degree of emission limitation required for control of any air pollutant under an applicable implementation plan under this subchapter shall not be affected in any manner by--

(1) so much of the stack height of any source as exceeds good engineering practice (as determined under regulations promulgated by the Administrator), or

(2) any other dispersion technique.

The preceding sentence shall not apply with respect to stack heights in existence before December 31, 1970, or dispersion techniques implemented before such date. In establishing an emission limitation for coal-fired steam electric generating units which are subject to the provisions of section 7418 of this title and which commenced operation before July 1, 1957, the effect of the entire stack height of stacks for which a construction contract was awarded before February 8, 1974, may be taken into account.

(b) Dispersion technique

For the purpose of this section, the term “dispersion technique” includes any intermittent or supplemental control of air pollutants varying with atmospheric conditions.

(c) Regulations; good engineering practice

Not later than six months after August 7, 1977, the Administrator, shall after notice and opportunity for public hearing, promulgate regulations to carry out this section. For purposes of this section, good engineering practice means, with respect to stack heights, the height necessary to insure that emissions from the stack do not result in excessive concentrations of any air pollutant in the immediate vicinity of the source as a result of atmospheric downwash, eddies and wakes which may be created by the source itself, nearby structures or nearby terrain

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obstacles (as determined by the Administrator). For purposes of this section such height shall not exceed two and a half times the height of such source unless the owner or operator of the source demonstrates, after notice and opportunity for public hearing, to the satisfaction of the Administrator, that a greater height is necessary as provided under the preceding sentence. In no event may the Administrator prohibit any increase in any stack height or restrict in any manner the stack height of any source.

CREDIT(S)

(July 14, 1955, c. 360, Title I, § 123, as added Aug. 7, 1977, Pub.L. 95-95, Title I, § 121, 91 Stat. 721.)

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Subchapter I. Programs and Activities
Part A. Air Quality and Emissions Limitations (Refs & Annos)

§ 7429. Solid waste combustion

(a) New source performance standards

(1) In general

(A) The Administrator shall establish performance standards and other requirements pursuant to section 7411 of this title and this section for each category of solid waste incineration units. Such standards shall include emissions limitations and other requirements applicable to new units and guidelines (under section 7411(d) of this title and this section) and other requirements applicable to existing units.

(B) Standards under section 7411 of this title and this section applicable to solid waste incineration units with capacity greater than 250 tons per day combusting municipal waste shall be promulgated not later than 12 months after November 15, 1990. Nothing in this subparagraph shall alter any schedule for the promulgation of standards applicable to such units under section 7411 of this title pursuant to any settlement and consent decree entered by the Administrator before November 15, 1990: *Provided,* That, such standards are subsequently modified pursuant to the schedule established in this subparagraph to include each of the requirements of this section.

(C) Standards under section 7411 of this title and this section applicable to solid waste incineration units with capacity equal to or less than 250 tons per day combusting municipal waste and units combusting hospital waste, medical waste and infectious waste shall be promulgated not later than 24 months after November 15, 1990.

(D) Standards under section 7411 of this title and this section applicable to solid waste incineration units combusting commercial or industrial waste shall be proposed not later than 36 months after November 15, 1990, and promulgated not later than 48 months after November 15, 1990.

(E) Not later than 18 months after November 15, 1990, the Administrator shall publish a schedule for the promulgation of standards under section 7411 of this title and this section applicable to other categories of solid waste incineration units.

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(2) Emissions standard

Standards applicable to solid waste incineration units promulgated under section 7411 of this title and this section shall reflect the maximum degree of reduction in emissions of air pollutants listed under section [FN1] (a)(4) that the Administrator, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable for new or existing units in each category. The Administrator may distinguish among classes, types (including mass-burn, refuse-derived fuel, modular and other types of units), and sizes of units within a category in establishing such standards. The degree of reduction in emissions that is deemed achievable for new units in a category shall not be less stringent than the emissions control that is achieved in practice by the best controlled similar unit, as determined by the Administrator. Emissions standards for existing units in a category may be less stringent than standards for new units in the same category but shall not be less stringent than the average emissions limitation achieved by the best performing 12 percent of units in the category (excluding units which first met lowest achievable emissions rates 18 months before the date such standards are proposed or 30 months before the date such standards are promulgated, whichever is later).

(3) Control methods and technologies

Standards under section 7411 of this title and this section applicable to solid waste incineration units shall be based on methods and technologies for removal or destruction of pollutants before, during, or after combustion, and shall incorporate for new units siting requirements that minimize, on a site specific basis, to the maximum extent practicable, potential risks to public health or the environment.

(4) Numerical emissions limitations

The performance standards promulgated under section 7411 of this title and this section and applicable to solid waste incineration units shall specify numerical emission limitations for the following substances or mixtures: particulate matter (total and fine), opacity (as appropriate), sulfur dioxide, hydrogen chloride, oxides of nitrogen, carbon monoxide, lead, cadmium, mercury, and dioxins and dibenzofurans. The Administrator may promulgate numerical emissions limitations or provide for the monitoring of postcombustion concentrations of surrogate substances, parameters or periods of residence time in excess of stated temperatures with respect to pollutants other than those listed in this paragraph.

(5) Review and revision

Not later than 5 years following the initial promulgation of any performance standards and other requirements under this section and section 7411 of this title applicable to a category of solid waste incineration units, and at 5 year intervals thereafter, the Administrator shall review, and in accordance with this section and section 7411 of this title, revise such standards and requirements.

(b) Existing units

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(1) Guidelines

Performance standards under this section and section 7411 of this title for solid waste incineration units shall include guidelines promulgated pursuant to section 7411(d) of this title and this section applicable to existing units. Such guidelines shall include, as provided in this section, each of the elements required by subsection (a) of this section (emissions limitations, notwithstanding any restriction in section 7411(d) of this title regarding issuance of such limitations), subsection (c) of this section (monitoring), subsection (d) of this section (operator training), subsection (e) of this section (permits), and subsection (h)(4) [FN2] of this section (residual risk).

(2) State plans

Not later than 1 year after the Administrator promulgates guidelines for a category of solid waste incineration units, each State in which units in the category are operating shall submit to the Administrator a plan to implement and enforce the guidelines with respect to such units. The State plan shall be at least as protective as the guidelines promulgated by the Administrator and shall provide that each unit subject to the guidelines shall be in compliance with all requirements of this section not later than 3 years after the State plan is approved by the Administrator but not later than 5 years after the guidelines were promulgated. The Administrator shall approve or disapprove any State plan within 180 days of the submission, and if a plan is disapproved, the Administrator shall state the reasons for disapproval in writing. Any State may modify and resubmit a plan which has been disapproved by the Administrator.

(3) Federal plan

The Administrator shall develop, implement and enforce a plan for existing solid waste incineration units within any category located in any State which has not submitted an approvable plan under this subsection with respect to units in such category within 2 years after the date on which the Administrator promulgated the relevant guidelines. Such plan shall assure that each unit subject to the plan is in compliance with all provisions of the guidelines not later than 5 years after the date the relevant guidelines are promulgated.

(c) Monitoring

The Administrator shall, as part of each performance standard promulgated pursuant to subsection (a) of this section and section 7411 of this title, promulgate regulations requiring the owner or operator of each solid waste incineration unit--

(1) to monitor emissions from the unit at the point at which such emissions are emitted into the ambient air (or within the stack, combustion chamber or pollution control equipment, as appropriate) and at such other points as necessary to protect public health and the environment;

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(2) to monitor such other parameters relating to the operation of the unit and its pollution control technology as the Administrator determines are appropriate; and

(3) to report the results of such monitoring.

Such regulations shall contain provisions regarding the frequency of monitoring, test methods and procedures validated on solid waste incineration units, and the form and frequency of reports containing the results of monitoring and shall require that any monitoring reports or test results indicating an exceedance of any standard under this section shall be reported separately and in a manner that facilitates review for purposes of enforcement actions. Such regulations shall require that copies of the results of such monitoring be maintained on file at the facility concerned and that copies shall be made available for inspection and copying by interested members of the public during business hours.

(d) Operator training

Not later than 24 months after November 15, 1990, the Administrator shall develop and promote a model State program for the training and certification of solid waste incineration unit operators and high-capacity fossil fuel fired plant operators. The Administrator may authorize any State to implement a model program for the training of solid waste incineration unit operators and high-capacity fossil fuel fired plant operators, if the State has adopted a program which is at least as effective as the model program developed by the Administrator. Beginning on the date 36 months after the date on which performance standards and guidelines are promulgated under subsection (a) of this section and section 7411 of this title for any category of solid waste incineration units it shall be unlawful to operate any unit in the category unless each person with control over processes affecting emissions from such unit has satisfactorily completed a training program meeting the requirements established by the Administrator under this subsection.

(e) Permits

Beginning (1) 36 months after the promulgation of a performance standard under subsection (a) of this section and section 7411 of this title applicable to a category of solid waste incineration units, or (2) the effective date of a permit program under subchapter V of this chapter in the State in which the unit is located, whichever is later, each unit in the category shall operate pursuant to a permit issued under this subsection and subchapter V of this chapter. Permits required by this subsection may be renewed according to the provisions of subchapter V of this chapter. Notwithstanding any other provision of this chapter, each permit for a solid waste incineration unit combusting municipal waste issued under this chapter shall be issued for a period of up to 12 years and shall be reviewed every 5 years after date of issuance or reissuance. Each permit shall continue in effect after the date of issuance until the date of termination, unless the Administrator or State determines that the unit is not in compliance with all standards and conditions contained in the permit. Such determination shall be made at regular intervals during the term of the permit, such intervals not to exceed 5 years, and only after public comment and public hearing. No permit for a solid waste incineration unit may be issued under this chapter by an agency, instrumentality or person that is also responsible, in whole or part, for the design and construction or operation of the unit. Notwithstanding any other provision of this subsection, the Administrator or the State shall require

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the owner or operator of any unit to comply with emissions limitations or implement any other measures, if the Administrator or the State determines that emissions in the absence of such limitations or measures may reasonably be anticipated to endanger public health or the environment. The Administrator's determination under the preceding sentence is a discretionary decision.

(f) Effective date and enforcement

(1) New units

Performance standards and other requirements promulgated pursuant to this section and section 7411 of this title and applicable to new solid waste incineration units shall be effective as of the date 6 months after the date of promulgation.

(2) Existing units

Performance standards and other requirements promulgated pursuant to this section and section 7411 of this title and applicable to existing solid waste incineration units shall be effective as expeditiously as practicable after approval of a State plan under subsection (b)(2) of this section (or promulgation of a plan by the Administrator under subsection (b)(3) of this section) but in no event later than 3 years after the State plan is approved or 5 years after the date such standards or requirements are promulgated, whichever is earlier.

(3) Prohibition

After the effective date of any performance standard, emission limitation or other requirement promulgated pursuant to this section and section 7411 of this title, it shall be unlawful for any owner or operator of any solid waste incineration unit to which such standard, limitation or requirement applies to operate such unit in violation of such limitation, standard or requirement or for any other person to violate an applicable requirement of this section.

(4) Coordination with other authorities

For purposes of sections 7411(e), 7413, 7414, 7416, 7420, 7603, 7604, 7607 of this title and other provisions for the enforcement of this chapter, each performance standard, emission limitation or other requirement established pursuant to this section by the Administrator or a State or local government, shall be treated in the same manner as a standard of performance under section 7411 of this title which is an emission limitation.

(g) Definitions

For purposes of section 306 of the Clean Air Act Amendments of 1990 and this section only--

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(1) Solid waste incineration unit

The term "solid waste incineration unit" means a distinct operating unit of any facility which combusts any solid waste material from commercial or industrial establishments or the general public (including single and multiple residences, hotels, and motels). Such term does not include incinerators or other units required to have a permit under section 3005 of the Solid Waste Disposal Act [42 U.S.C.A. § 6925]. The term "solid waste incineration unit" does not include (A) materials recovery facilities (including primary or secondary smelters) which combust waste for the primary purpose of recovering metals, (B) qualifying small power production facilities, as defined in section 796(17)(C) of Title 16, or qualifying cogeneration facilities, as defined in section 796(18)(B) of Title 16, which burn homogeneous waste (such as units which burn tires or used oil, but not including refuse-derived fuel) for the production of electric energy or in the case of qualifying cogeneration facilities which burn homogeneous waste for the production of electric energy and steam or forms of useful energy (such as heat) which are used for industrial, commercial, heating or cooling purposes, or (C) air curtain incinerators provided that such incinerators only burn wood wastes, yard wastes and clean lumber and that such air curtain incinerators comply with opacity limitations to be established by the Administrator by rule.

(2) New solid waste incineration unit

The term "new solid waste incineration unit" means a solid waste incineration unit the construction of which is commenced after the Administrator proposes requirements under this section establishing emissions standards or other requirements which would be applicable to such unit or a modified solid waste incineration unit.

(3) Modified solid waste incineration unit

The term "modified solid waste incineration unit" means a solid waste incineration unit at which modifications have occurred after the effective date of a standard under subsection (a) of this section if (A) the cumulative cost of the modifications, over the life of the unit, exceed 50 per centum of the original cost of construction and installation of the unit (not including the cost of any land purchased in connection with such construction or installation) updated to current costs, or (B) the modification is a physical change in or change in the method of operation of the unit which increases the amount of any air pollutant emitted by the unit for which standards have been established under this section or section 7411 of this title.

(4) Existing solid waste incineration unit

The term "existing solid waste incineration unit" means a solid waste unit which is not a new or modified solid waste incineration unit.

(5) Municipal waste

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The term "municipal waste" means refuse (and refuse-derived fuel) collected from the general public and from residential, commercial, institutional, and industrial sources consisting of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustible materials and non-combustible materials such as metal, glass and rock, provided that: (A) the term does not include industrial process wastes or medical wastes that are segregated from such other wastes; and (B) an incineration unit shall not be considered to be combusting municipal waste for purposes of section 7411 of this title or this section if it combusts a fuel feed stream, 30 percent or less of the weight of which is comprised, in aggregate, of municipal waste.

(6) Other terms

The terms "solid waste" and "medical waste" shall have the meanings established by the Administrator pursuant to the Solid Waste Disposal Act [42 U.S.C.A. § 6901 et seq.].

(h) Other authority

(1) State authority

Nothing in this section shall preclude or deny the right of any State or political subdivision thereof to adopt or enforce any regulation, requirement, limitation or standard relating to solid waste incineration units that is more stringent than a regulation, requirement, limitation or standard in effect under this section or under any other provision of this chapter.

(2) Other authority under this chapter

Nothing in this section shall diminish the authority of the Administrator or a State to establish any other requirements applicable to solid waste incineration units under any other authority of law, including the authority to establish for any air pollutant a national ambient air quality standard, except that no solid waste incineration unit subject to performance standards under this section and section 7411 of this title shall be subject to standards under section 7412(d) of this title.

(3) Residual risk

The Administrator shall promulgate standards under section 7412(f) of this title for a category of solid waste incineration units, if promulgation of such standards is required under section 7412(f) of this title. For purposes of this [FN3] preceding sentence only--

(A) the performance standards under subsection (a) of this section and section 7411 of this title applicable to a category of solid waste incineration units shall be deemed standards under section 7412(d)(2) of this title, and

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(B) the Administrator shall consider and regulate, if required, the pollutants listed under subsection (a)(4) of this section and no others.

(4) Acid rain

A solid waste incineration unit shall not be a utility unit as defined in subchapter IV-A of this chapter: *Provided*, That, more than 80 per centum of its annual average fuel consumption measured on a Btu basis, during a period or periods to be determined by the Administrator, is from a fuel (including any waste burned as a fuel) other than a fossil fuel.

(5) Requirements of parts C and D

No requirement of an applicable implementation plan under section 7475 of this title (relating to construction of facilities in regions identified pursuant to section 7407(d)(1)(A)(ii) or (iii) of this title) or under section 7502(c)(5) of this title (relating to permits for construction and operation in nonattainment areas) may be used to weaken the standards in effect under this section.

CREDIT(S)

(July 14, 1955, c. 360, Title I, § 129, as added Nov. 15, 1990, Pub.L. 101-549, Title III, § 305(a), 104 Stat. 2577.)

[FN1] So in original. Probably should be “subsection”.

[FN2] So in original. Probably should be subsection “(h)(3)”.

[FN3] So in original. Probably should be “the”.

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Title 42. The Public Health and Welfare
Chapter 85. Air Pollution Prevention and Control (Refs & Annos)
Subchapter III. General Provisions
§ 7607. Administrative proceedings and judicial review

(a) Administrative subpenas; confidentiality; witnesses

In connection with any determination under section 7410(f) of this title, or for purposes of obtaining information under section 7521(b)(4) or 7545(c)(3) of this title, any investigation, monitoring, reporting requirement, entry, compliance inspection, or administrative enforcement proceeding under the [FN1] chapter (including but not limited to section 7413, section 7414, section 7420, section 7429, section 7477, section 7524, section 7525, section 7542, section 7603, or section 7606 of this title),, [FN2] the Administrator may issue subpenas for the attendance and testimony of witnesses and the production of relevant papers, books, and documents, and he may administer oaths. Except for emission data, upon a showing satisfactory to the Administrator by such owner or operator that such papers, books, documents, or information or particular part thereof, if made public, would divulge trade secrets or secret processes of such owner or operator, the Administrator shall consider such record, report, or information or particular portion thereof confidential in accordance with the purposes of section 1905 of Title 18, except that such paper, book, document, or information may be disclosed to other officers, employees, or authorized representatives of the United States concerned with carrying out this chapter, to persons carrying out the National Academy of Sciences' study and investigation provided for in section 7521(c) of this title, or when relevant in any proceeding under this chapter. Witnesses summoned shall be paid the same fees and mileage that are paid witnesses in the courts of the United States. In case of contumacy or refusal to obey a subpena served upon any person under this subparagraph, the district court of the United States for any district in which such person is found or resides or transacts business, upon application by the United States and after notice to such person, shall have jurisdiction to issue an order requiring such person to appear and give testimony before the Administrator to appear and produce papers, books, and documents before the Administrator, or both, and any failure to obey such order of the court may be punished by such court as a contempt thereof.

(b) Judicial review

(1) A petition for review of action of the Administrator in promulgating any national primary or secondary ambient air quality standard, any emission standard or requirement under section 7412 of this title, any standard of performance or requirement under section 7411 of this title,, [FN2] any standard under section 7521 of this title (other than a standard required to be prescribed under section 7521(b)(1) of this title), any determination under section 7521(b)(5) of this title, any control or prohibition under section 7545 of this title, any standard under section 7571 of this title, any rule issued under section 7413, 7419, or under section 7420 of this title, or any

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other nationally applicable regulations promulgated, or final action taken, by the Administrator under this chapter may be filed only in the United States Court of Appeals for the District of Columbia. A petition for review of the Administrator's action in approving or promulgating any implementation plan under section 7410 of this title or section 7411(d) of this title, any order under section 7411(j) of this title, under section 7412 of this title,, [FN2] under section 7419 of this title, or under section 7420 of this title, or his action under section 1857c-10(c)(2)(A), (B), or (C) of this title (as in effect before August 7, 1977) or under regulations thereunder, or revising regulations for enhanced monitoring and compliance certification programs under section 7414(a)(3) of this title, or any other final action of the Administrator under this chapter (including any denial or disapproval by the Administrator under subchapter I of this chapter) which is locally or regionally applicable may be filed only in the United States Court of Appeals for the appropriate circuit. Notwithstanding the preceding sentence a petition for review of any action referred to in such sentence may be filed only in the United States Court of Appeals for the District of Columbia if such action is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action is based on such a determination. Any petition for review under this subsection shall be filed within sixty days from the date notice of such promulgation, approval, or action appears in the Federal Register, except that if such petition is based solely on grounds arising after such sixtieth day, then any petition for review under this subsection shall be filed within sixty days after such grounds arise. The filing of a petition for reconsideration by the Administrator of any otherwise final rule or action shall not affect the finality of such rule or action for purposes of judicial review nor extend the time within which a petition for judicial review of such rule or action under this section may be filed, and shall not postpone the effectiveness of such rule or action.

(2) Action of the Administrator with respect to which review could have been obtained under paragraph (1) shall not be subject to judicial review in civil or criminal proceedings for enforcement. Where a final decision by the Administrator defers performance of any nondiscretionary statutory action to a later time, any person may challenge the deferral pursuant to paragraph (1).

(c) Additional evidence

In any judicial proceeding in which review is sought of a determination under this chapter required to be made on the record after notice and opportunity for hearing, if any party applies to the court for leave to adduce additional evidence, and shows to the satisfaction of the court that such additional evidence is material and that there were reasonable grounds for the failure to adduce such evidence in the proceeding before the Administrator, the court may order such additional evidence (and evidence in rebuttal thereof) to be taken before the Administrator, in such manner and upon such terms and conditions as to [FN3] the court may deem proper. The Administrator may modify his findings as to the facts, or make new findings, by reason of the additional evidence so taken and he shall file such modified or new findings, and his recommendation, if any, for the modification or setting aside of his original determination, with the return of such additional evidence.

(d) Rulemaking

(1) This subsection applies to--

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(A) the promulgation or revision of any national ambient air quality standard under section 7409 of this title,

(B) the promulgation or revision of an implementation plan by the Administrator under section 7410(c) of this title,

(C) the promulgation or revision of any standard of performance under section 7411 of this title, or emission standard or limitation under section 7412(d) of this title, any standard under section 7412(f) of this title, or any regulation under section 7412(g)(1)(D) and (F) of this title, or any regulation under section 7412(m) or (n) of this title,

(D) the promulgation of any requirement for solid waste combustion under section 7429 of this title,

(E) the promulgation or revision of any regulation pertaining to any fuel or fuel additive under section 7545 of this title,

(F) the promulgation or revision of any aircraft emission standard under section 7571 of this title,

(G) the promulgation or revision of any regulation under subchapter IV-A of this chapter (relating to control of acid deposition),

(H) promulgation or revision of regulations pertaining to primary nonferrous smelter orders under section 7419 of this title (but not including the granting or denying of any such order),

(I) promulgation or revision of regulations under subchapter VI of this chapter (relating to stratosphere and ozone protection),

(J) promulgation or revision of regulations under part C of subchapter I of this chapter (relating to prevention of significant deterioration of air quality and protection of visibility),

(K) promulgation or revision of regulations under section 7521 of this title and test procedures for new motor vehicles or engines under section 7525 of this title, and the revision of a standard under section 7521(a)(3) of this title,

(L) promulgation or revision of regulations for noncompliance penalties under section 7420 of this title,

(M) promulgation or revision of any regulations promulgated under section 7541 of this title (relating to warranties and compliance by vehicles in actual use),

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(N) action of the Administrator under section 7426 of this title (relating to interstate pollution abatement),

(O) the promulgation or revision of any regulation pertaining to consumer and commercial products under section 7511b(e) of this title,

(P) the promulgation or revision of any regulation pertaining to field citations under section 7413(d)(3) of this title,

(Q) the promulgation or revision of any regulation pertaining to urban buses or the clean-fuel vehicle, clean-fuel fleet, and clean fuel programs under part C of subchapter II of this chapter,

(R) the promulgation or revision of any regulation pertaining to nonroad engines or nonroad vehicles under section 7547 of this title,

(S) the promulgation or revision of any regulation relating to motor vehicle compliance program fees under section 7552 of this title,

(T) the promulgation or revision of any regulation under subchapter IV-A of this chapter (relating to acid deposition),

(U) the promulgation or revision of any regulation under section 7511b(f) of this title pertaining to marine vessels, and

(V) such other actions as the Administrator may determine.

The provisions of section 553 through 557 and section 706 of Title 5 shall not, except as expressly provided in this subsection, apply to actions to which this subsection applies. This subsection shall not apply in the case of any rule or circumstance referred to in subparagraphs (A) or (B) of subsection 553(b) of Title 5.

(2) Not later than the date of proposal of any action to which this subsection applies, the Administrator shall establish a rulemaking docket for such action (hereinafter in this subsection referred to as a "rule"). Whenever a rule applies only within a particular State, a second (identical) docket shall be simultaneously established in the appropriate regional office of the Environmental Protection Agency.

(3) In the case of any rule to which this subsection applies, notice of proposed rulemaking shall be published in the Federal Register, as provided under section 553(b) of Title 5, shall be accompanied by a statement of its basis and purpose and shall specify the period available for public comment (hereinafter referred to as the "comment period"). The notice of proposed rulemaking shall also state the docket number, the location or locations of the docket, and the times it will be open to public inspection. The statement of basis and purpose shall

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include a summary of--

(A) the factual data on which the proposed rule is based;

(B) the methodology used in obtaining the data and in analyzing the data; and

(C) the major legal interpretations and policy considerations underlying the proposed rule.

The statement shall also set forth or summarize and provide a reference to any pertinent findings, recommendations, and comments by the Scientific Review Committee established under section 7409(d) of this title and the National Academy of Sciences, and, if the proposal differs in any important respect from any of these recommendations, an explanation of the reasons for such differences. All data, information, and documents referred to in this paragraph on which the proposed rule relies shall be included in the docket on the date of publication of the proposed rule.

(4)(A) The rulemaking docket required under paragraph (2) shall be open for inspection by the public at reasonable times specified in the notice of proposed rulemaking. Any person may copy documents contained in the docket. The Administrator shall provide copying facilities which may be used at the expense of the person seeking copies, but the Administrator may waive or reduce such expenses in such instances as the public interest requires. Any person may request copies by mail if the person pays the expenses, including personnel costs to do the copying.

(B)(i) Promptly upon receipt by the agency, all written comments and documentary information on the proposed rule received from any person for inclusion in the docket during the comment period shall be placed in the docket. The transcript of public hearings, if any, on the proposed rule shall also be included in the docket promptly upon receipt from the person who transcribed such hearings. All documents which become available after the proposed rule has been published and which the Administrator determines are of central relevance to the rulemaking shall be placed in the docket as soon as possible after their availability.

(ii) The drafts of proposed rules submitted by the Administrator to the Office of Management and Budget for any interagency review process prior to proposal of any such rule, all documents accompanying such drafts, and all written comments thereon by other agencies and all written responses to such written comments by the Administrator shall be placed in the docket no later than the date of proposal of the rule. The drafts of the final rule submitted for such review process prior to promulgation and all such written comments thereon, all documents accompanying such drafts, and written responses thereto shall be placed in the docket no later than the date of promulgation.

(5) In promulgating a rule to which this subsection applies (i) the Administrator shall allow any person to submit written comments, data, or documentary information; (ii) the Administrator shall give interested persons an opportunity for the oral presentation of data, views, or arguments, in addition to an opportunity to make written submissions; (iii) a transcript shall be kept of any oral presentation; and (iv) the Administrator shall keep the re-

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cord of such proceeding open for thirty days after completion of the proceeding to provide an opportunity for submission of rebuttal and supplementary information.

(6)(A) The promulgated rule shall be accompanied by (i) a statement of basis and purpose like that referred to in paragraph (3) with respect to a proposed rule and (ii) an explanation of the reasons for any major changes in the promulgated rule from the proposed rule.

(B) The promulgated rule shall also be accompanied by a response to each of the significant comments, criticisms, and new data submitted in written or oral presentations during the comment period.

(C) The promulgated rule may not be based (in part or whole) on any information or data which has not been placed in the docket as of the date of such promulgation.

(7)(A) The record for judicial review shall consist exclusively of the material referred to in paragraph (3), clause (i) of paragraph (4)(B), and subparagraphs (A) and (B) of paragraph (6).

(B) Only an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review. If the person raising an objection can demonstrate to the Administrator that it was impracticable to raise such objection within such time or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule, the Administrator shall convene a proceeding for reconsideration of the rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed. If the Administrator refuses to convene such a proceeding, such person may seek review of such refusal in the United States court of appeals for the appropriate circuit (as provided in subsection (b) of this section). Such reconsideration shall not postpone the effectiveness of the rule. The effectiveness of the rule may be stayed during such reconsideration, however, by the Administrator or the court for a period not to exceed three months.

(8) The sole forum for challenging procedural determinations made by the Administrator under this subsection shall be in the United States court of appeals for the appropriate circuit (as provided in subsection (b) of this section) at the time of the substantive review of the rule. No interlocutory appeals shall be permitted with respect to such procedural determinations. In reviewing alleged procedural errors, the court may invalidate the rule only if the errors were so serious and related to matters of such central relevance to the rule that there is a substantial likelihood that the rule would have been significantly changed if such errors had not been made.

(9) In the case of review of any action of the Administrator to which this subsection applies, the court may reverse any such action found to be--

(A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;

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(B) contrary to constitutional right, power, privilege, or immunity;

(C) in excess of statutory jurisdiction, authority, or limitations, or short of statutory right; or

(D) without observance of procedure required by law, if (i) such failure to observe such procedure is arbitrary or capricious, (ii) the requirement of paragraph (7)(B) has been met, and (iii) the condition of the last sentence of paragraph (8) is met.

(10) Each statutory deadline for promulgation of rules to which this subsection applies which requires promulgation less than six months after date of proposal may be extended to not more than six months after date of proposal by the Administrator upon a determination that such extension is necessary to afford the public, and the agency, adequate opportunity to carry out the purposes of this subsection.

(11) The requirements of this subsection shall take effect with respect to any rule the proposal of which occurs after ninety days after August 7, 1977.

(e) Other methods of judicial review not authorized

Nothing in this chapter shall be construed to authorize judicial review of regulations or orders of the Administrator under this chapter, except as provided in this section.

(f) Costs

In any judicial proceeding under this section, the court may award costs of litigation (including reasonable attorney and expert witness fees) whenever it determines that such award is appropriate.

(g) Stay, injunction, or similar relief in proceedings relating to noncompliance penalties

In any action respecting the promulgation of regulations under section 7420 of this title or the administration or enforcement of section 7420 of this title no court shall grant any stay, injunctive, or similar relief before final judgment by such court in such action.

(h) Public participation

It is the intent of Congress that, consistent with the policy of subchapter II of chapter 5 of Title 5, the Administrator in promulgating any regulation under this chapter, including a regulation subject to a deadline, shall ensure a reasonable period for public participation of at least 30 days, except as otherwise expressly provided in section [FN4] 7407(d), 7502(a), 7511(a) and (b), and 7512(a) and (b) of this title.

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(July 14, 1955, c. 360, Title III, § 307, as added Dec. 31, 1970, Pub.L. 91-604, § 12(a), 84 Stat. 1707; amended Nov. 18, 1971, Pub.L. 92-157, Title III, § 302(a), 85 Stat. 464; June 22, 1974, Pub.L. 93-319, § 6(c), 88 Stat. 259; Aug. 7, 1977, Pub.L. 95-95, Title III, §§ 303(d), 305(a), (c), (f)-(h), 91 Stat. 772, 776, 777; Nov. 16, 1977, Pub.L. 95-190, § 14(a)(79), (80), 91 Stat. 1404; Nov. 15, 1990, Pub.L. 101-549, Title I, §§ 108(p), 110(5), Title III, § 302(g), (h), Title VII, §§ 702(c), 703, 706, 707(h), 710(b), 104 Stat. 2469, 2470, 2574, 2681-2684.)

[FN1] So in original. Probably should be “this”.

[FN2] So in original.

[FN3] So in original. The word “to” probably should not appear.

[FN4] So in original. Probably should be “sections”.

Current through P.L. 112-174 (excluding P.L. 112-140, 112-141, and 112-166) approved 9-20-12.

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C

Effective:[See Text Amendments]

United States Code Annotated Currentness
Title 42. The Public Health and Welfare
Chapter 85. Air Pollution Prevention and Control (Refs & Annos)
Subchapter V. Permits (Refs & Annos)
§ 7661c. Permit requirements and conditions

(a) Conditions

Each permit issued under this subchapter shall include enforceable emission limitations and standards, a schedule of compliance, a requirement that the permittee submit to the permitting authority, no less often than every 6 months, the results of any required monitoring, and such other conditions as are necessary to assure compliance with applicable requirements of this chapter, including the requirements of the applicable implementation plan.

(b) Monitoring and analysis

The Administrator may by rule prescribe procedures and methods for determining compliance and for monitoring and analysis of pollutants regulated under this chapter, but continuous emissions monitoring need not be required if alternative methods are available that provide sufficiently reliable and timely information for determining compliance. Nothing in this subsection shall be construed to affect any continuous emissions monitoring requirement of subchapter IV-A of this chapter, or where required elsewhere in this chapter.

(c) Inspection, entry, monitoring, certification, and reporting

Each permit issued under this subchapter shall set forth inspection, entry, monitoring, compliance certification, and reporting requirements to assure compliance with the permit terms and conditions. Such monitoring and reporting requirements shall conform to any applicable regulation under subsection (b) of this section. Any report required to be submitted by a permit issued to a corporation under this subchapter shall be signed by a responsible corporate official, who shall certify its accuracy.

(d) General permits

The permitting authority may, after notice and opportunity for public hearing, issue a general permit covering numerous similar sources. Any general permit shall comply with all requirements applicable to permits under this subchapter. No source covered by a general permit shall thereby be relieved from the obligation to file an application under section 7661b of this title.

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(e) Temporary sources

The permitting authority may issue a single permit authorizing emissions from similar operations at multiple temporary locations. No such permit shall be issued unless it includes conditions that will assure compliance with all the requirements of this chapter at all authorized locations, including, but not limited to, ambient standards and compliance with any applicable increment or visibility requirements under part C of subchapter I of this chapter. Any such permit shall in addition require the owner or operator to notify the permitting authority in advance of each change in location. The permitting authority may require a separate permit fee for operations at each location.

(f) Permit shield

Compliance with a permit issued in accordance with this subchapter shall be deemed compliance with section 7661a of this title. Except as otherwise provided by the Administrator by rule, the permit may also provide that compliance with the permit shall be deemed compliance with other applicable provisions of this chapter that relate to the permittee if--

(1) the permit includes the applicable requirements of such provisions, or

(2) the permitting authority in acting on the permit application makes a determination relating to the permittee that such other provisions (which shall be referred to in such determination) are not applicable and the permit includes the determination or a concise summary thereof.

Nothing in the preceding sentence shall alter or affect the provisions of section 7603 of this title, including the authority of the Administrator under that section.

CREDIT(S)

(July 14, 1955, c. 360, Title V, § 504, as added Nov. 15, 1990, Pub.L. 101-549, Title V, § 501, 104 Stat. 2642.)

Current through P.L. 112-174 (excluding P.L. 112-140, 112-141, and 112-166) approved 9-20-12.

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Effective: May 20, 2011

Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 60. Standards of Performance for New Stationary Sources (Refs & Annos)
Subpart LLLL. Standards of Performance for New Sewage Sludge Incineration Units (Refs & Annos)
Initial Compliance Requirements
§ 60.4865 How and when do I demonstrate initial compliance with the emission limits and standards?

To demonstrate initial compliance with the emission limits and standards in Table 1 or 2 to this subpart, use the procedures specified in paragraph (a) of this section for particulate matter, hydrogen chloride, dioxins/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, lead, and fugitive emissions from ash handling, and follow the procedures specified in paragraph (b) of this section for carbon monoxide. In lieu of using the procedures specified in paragraph (a) of this section, you also have the option to demonstrate initial compliance using the procedures specified in paragraph (b) of this section for particulate matter, hydrogen chloride, dioxins/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, and lead. You must meet the requirements of paragraphs (a) or (b) of this section, as applicable, and paragraphs (c) and (d) of this section, according to the performance testing, monitoring, and calibration requirements in § 60.4900(a) and (b). Except as provided in paragraph (e) of this section, within 60 days after your SSI unit reaches the feed rate at which it will operate, or within 180 days after its initial startup, whichever comes first, you must demonstrate that your SSI unit meets the emission limits and standards specified in Table 1 or 2 to this subpart.

(a) Demonstrate initial compliance using the performance test required in § 60.8. You must demonstrate that your SSI unit meets the emission limits and standards specified in Table 1 or 2 to this subpart for particulate matter, hydrogen chloride, dioxins/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, lead, and fugitive emissions from ash handling using the performance test. The initial performance test must be conducted using the test methods, averaging methods, and minimum sampling volumes or durations specified in Table 1 or 2 to this subpart and according to the testing, monitoring, and calibration requirements specified in § 60.4900(a).

(b) Demonstrate initial compliance using a continuous emissions monitoring system or continuous automated sampling system. The option to use a continuous emissions monitoring system for hydrogen chloride, dioxins/furans, cadmium, or lead takes effect on the date a final performance specification applicable to hydrogen chloride, dioxins/furans, cadmium, or lead is published in the Federal Register. The option to use a continuous automated sampling system for dioxins/furans takes effect on the date a final performance specification for such a continuous automated sampling system is published in the Federal Register. Collect data as specified in § 60.4900(b)(6) and use the following procedures:

(1) To demonstrate initial compliance with the carbon monoxide emission limit specified in Table 1 or 2 to this subpart, you must use the carbon monoxide continuous emissions monitoring system specified in § 60.4900(b). For de-

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termining compliance with the carbon monoxide concentration limit using carbon monoxide CEMS, the correction to 7 percent oxygen does not apply during periods of startup or shutdown. Use the measured carbon monoxide concentration without correcting for oxygen concentration in averaging with other carbon monoxide concentrations (corrected to 7 percent oxygen) to determine the 24–hour average value.

(2) To demonstrate initial compliance with the emission limits specified in Table 1 or 2 to this subpart for particulate matter, hydrogen chloride, dioxins/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, and lead, you may substitute the use of a continuous monitoring system in lieu of conducting the initial performance test required in paragraph (a) of this section, as follows:

(i) You may substitute the use of a continuous emissions monitoring system for any pollutant specified in paragraph (b)(2) of this section in lieu of conducting the initial performance test for that pollutant in paragraph (a) of this section.

(ii) You may substitute the use of a continuous automated sampling system for mercury or dioxins/furans in lieu of conducting the initial mercury or dioxin/furan performance test in paragraph (a) of this section.

(3) If you use a continuous emissions monitoring system to demonstrate compliance with an applicable emission limit in Table 1 or 2 to this subpart, as described in paragraph (b)(1) or (b)(2) of this section, you must use the continuous emissions monitoring system and follow the requirements specified in § 60.4900(b). You must measure emissions according to § 60.13 to calculate 1–hour arithmetic averages, corrected to 7 percent oxygen (or carbon dioxide). You must demonstrate initial compliance using a 24–hour block average of these 1–hour arithmetic average emission concentrations, calculated using Equation 19–19 in section 12.4.1 of Method 19 of 40 CFR part 60, appendix A–7.

(4) If you use a continuous automated sampling system to demonstrate compliance with an applicable emission limit in Table 1 or 2 to this subpart, as described in paragraph (b)(2) of this section, you must:

(i) Use the continuous automated sampling system specified in § 60.58b(p) and (q), and measure and calculate average emissions corrected to 7 percent oxygen (or carbon dioxide) according to § 60.58b(p) and your monitoring plan.

(A) Use the procedures specified in § 60.58b(p) to calculate 24–hour block averages to determine compliance with the mercury emission limit in Table 1 or 2 to this subpart.

(B) Use the procedures specified in § 60.58b(p) to calculate 2–week block averages to determine compliance with the dioxin/furan (total mass basis or toxic equivalency basis) emission limits in Table 1 or 2 to this subpart.

(ii) Comply with the provisions in § 60.58b(q) to develop a monitoring plan. For mercury continuous automated sampling systems, you must use Performance Specification 12B of appendix B of part 75 and Procedure 5 of appendix F of this part.

(5) Except as provided in paragraph (e) of this

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section, you must complete your initial performance evaluations required under your monitoring plan for any continuous emissions monitoring system and continuous automated sampling systems according to the provisions of § 60.4880. Your performance evaluation must be conducted using the procedures and acceptance criteria specified in § 60.4880(a)(3).

(c) To demonstrate initial compliance with the dioxins/furans toxic equivalency emission limit in Table 1 or 2 to this subpart, determine dioxins/furans toxic equivalency as follows:

(1) Measure the concentration of each dioxin/furan tetra- through octachlorinated-isomer emitted using Method 23 at 40 CFR part 60, appendix A–7.

(2) Multiply the concentration of each dioxin/furan (tetra- through octa-chlorinated) isomer by its corresponding toxic equivalency factor specified in Table 4 to this subpart.

(3) Sum the products calculated in accordance with paragraph (c)(2) of this section to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

(d) Submit an initial compliance report, as specified in § 60.4915(c).

(e) If you demonstrate initial compliance using the performance test specified in paragraph (a) of this section, then the provisions of this paragraph (e) apply. If a force majeure is about to occur, occurs, or has occurred for which you intend to assert a claim of force majeure, you must notify the Administrator in writing as specified in § 60.4915(g). You must conduct the initial performance test as soon as practicable after the force majeure occurs. The Administrator will determine whether or not to grant the extension to the initial performance test deadline, and will notify you in writing of approval or disapproval of the request for an extension as soon as practicable. Until an extension of the performance test deadline has been approved by the Administrator, you remain strictly subject to the requirements of this subpart.

SOURCE: 36 FR 24877, Dec. 23, 1971; 50 FR 36834, Sept. 9, 1985; 52 FR 37874, Oct. 9, 1987; 53 FR 2675, Jan. 29, 1988; 57 FR 32338, July 21, 1992; 58 FR 40591, July 29, 1993; 60 FR 65384, Dec. 19, 1995; 62 FR 8328, Feb. 24, 1997; 62 FR 48379, Sept. 15, 1997; 64 FR 7463, Feb. 12, 1999; 65 FR 78275, Dec. 14, 2000; 72 FR 59204, Oct. 19, 2007; 76 FR 15404, March 21, 2011, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

40 C. F. R. § 60.4865, 40 CFR § 60.4865

Current through October 11, 2012; 77 FR 62132

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C

Effective: May 20, 2011

Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 60. Standards of Performance for New Stationary Sources (Refs & Annos)
Subpart LLLL. Standards of Performance for New Sewage Sludge Incineration Units (Refs & Annos)
Continuous Compliance Requirements

§ 60.4885 How and when do I demonstrate continuous compliance with the emission limits and standards?

To demonstrate continuous compliance with the emission limits and standards specified in Table 1 or 2 to this subpart, use the procedures specified in paragraph (a) of this section for particulate matter, hydrogen chloride, dioxins/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, lead, and fugitive emissions from ash handling, and follow the procedures specified in paragraph (b) of this section for carbon monoxide. In lieu of using the procedures specified in paragraph (a) of this section, you also have the option to demonstrate continuous compliance using the procedures specified in paragraph (b) of this section for particulate matter, hydrogen chloride, dioxins/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, and lead. You must meet the requirements of paragraphs (a) and (b) of this section, as applicable, and paragraphs (c) through (e) of this section, according to the performance testing, monitoring, and calibration requirements in § 60.4900(a) and (b). You may also petition the Administrator for alternative monitoring parameters as specified in paragraph (f) of this section.

(a) Demonstrate continuous compliance using a performance test. Except as provided in paragraphs (a)(3) and (e) of this section, following the date that the initial performance test for each pollutant in Table 1 or 2 to this subpart except carbon monoxide is completed, you must conduct a performance test for each such pollutant on an annual basis (between 11 and 13 calendar months following the previous performance test). The performance test must be conducted using the test methods, averaging methods, and minimum sampling volumes or durations specified in Table 1 or 2 to this subpart and according to the testing, monitoring, and calibration requirements specified in § 60.4900(a).

(1) You may conduct a repeat performance test at any time to establish new values for the operating limits to apply from that point forward. The Administrator may request a repeat performance test at any time.

(2) You must repeat the performance test within 60 days of a process change, as defined in § 60.4930.

(3) Except as specified in paragraphs (a)(1) and (2) of this section, you can conduct performance tests less often for a given pollutant, as specified in paragraphs (a)(3)(i) through (iii) of this section.

(i) You can conduct performance tests less often if your performance tests for the pollutant for at least 2 consecutive years show that your emissions are at or below 75 percent of the emission limit specified in Table 2 or 3 to this subpart, and there are no changes in the opera-

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tion of the affected source or air pollution control equipment that could increase emissions. In this case, you do not have to conduct a performance test for that pollutant for the next 2 years. You must conduct a performance test during the third year and no more than 37 months after the previous performance test.

(ii) If your SSI unit continues to meet the emission limit for the pollutant, you may choose to conduct performance tests for the pollutant every third year if your emissions are at or below 75 percent of the emission limit, and if there are no changes in the operation of the affected source or air pollution control equipment that could increase emissions, but each such performance test must be conducted no more than 37 months after the previous performance test.

(iii) If a performance test shows emissions exceeded 75 percent of the emission limit for a pollutant, you must conduct annual performance tests for that pollutant until all performance tests over 2 consecutive years show compliance.

(b) Demonstrate continuous compliance using a continuous emissions monitoring system or continuous automated sampling system. The option to use a continuous emissions monitoring system for hydrogen chloride, dioxins/furans, cadmium, or lead takes effect on the date a final performance specification applicable to hydrogen chloride, dioxins/furans, cadmium, or lead is published in the Federal Register. The option to use a continuous automated sampling system for dioxins/furans takes effect on the date a final performance specification for such a continuous automated sampling system is published in the Federal Register. Collect data as specified in § 60.4900(b)(6) and use the following procedures:

(1) To demonstrate continuous compliance with the carbon monoxide emission limit, you must use the carbon monoxide continuous emissions monitoring system specified in § 60.4900(b). For determining compliance with the carbon monoxide concentration limit using carbon monoxide CEMS, the correction to 7 percent oxygen does not apply during periods of startup or shutdown. Use the measured carbon monoxide concentration without correcting for oxygen concentration in averaging with other carbon monoxide concentrations (corrected to 7 percent oxygen) to determine the 24–hour average value.

(2) To demonstrate continuous compliance with the emission limits for particulate matter, hydrogen chloride, dioxins/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, and lead, you may substitute the use of a continuous monitoring system in lieu of conducting the annual performance test required in paragraph (a) of this section, as follows:

(i) You may substitute the use of a continuous emissions monitoring system for any pollutant specified in paragraph (b)(2) of this section in lieu of conducting the annual performance test for that pollutant in paragraph (a) of this section.

(ii) You may substitute the use of a continuous automated sampling system for mercury or dioxins/furans in lieu of conducting the annual mercury or dioxin/furan performance test in paragraph (a) of this section.

(3) If you use a continuous emissions monitoring system to demonstrate compliance with an applicable emission limit in either paragraph (b)(1) or (b)(2) of this section, you must use the continuous emissions monitoring system

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and follow the requirements specified in § 60.4900(b). You must measure emissions according to § 60.13 to calculate 1–hour arithmetic averages, corrected to 7 percent oxygen (or carbon dioxide). You must demonstrate initial compliance using a 24–hour block average of these 1–hour arithmetic average emission concentrations, calculated using Equation 19–19 in section 12.4.1 of Method 19 of 40 CFR part 60, appendix A–7.

(4) If you use a continuous automated sampling system to demonstrate compliance with an applicable emission limit in paragraph (b)(2) of this section, you must:

(i) Use the continuous automated sampling system specified in § 60.58b(p) and (q), and measure and calculate average emissions corrected to 7 percent oxygen (or carbon dioxide) according to § 60.58b(p) and your monitoring plan.

(A) Use the procedures specified in § 60.58b(p) to calculate 24–hour averages to determine compliance with the mercury emission limit in Table 1 or 2 to this subpart.

(B) Use the procedures specified in § 60.58b(p) to calculate 2–week averages to determine compliance with the dioxin/furan emission limit (total mass basis or toxic equivalency basis) in Table 1 or 2 to this subpart.

(ii) Update your monitoring plan as specified in § 60.4880(e). For mercury continuous automated sampling systems, you must use Performance Specification 12B of appendix B of part 75 and Procedure 5 of appendix F of this part.

(5) Except as provided in paragraph (e) of this section, you must complete your periodic performance evaluations required under your monitoring plan for any continuous emissions monitoring system and continuous automated sampling systems, according to the schedule specified in your monitoring plan. If you were previously determining compliance by conducting an annual performance test (or according to the less frequent testing for a pollutant as provided in paragraph (a)(3) of this section), you must complete the initial performance evaluation required in your monitoring plan in § 60.4880 for the continuous monitoring system prior to using the continuous emissions monitoring system to demonstrate compliance or continuous automated sampling system. Your performance evaluation must be conducted using the procedures and acceptance criteria specified in § 60.4880(a)(3).

(c) To demonstrate compliance with the dioxins/furans toxic equivalency emission limit in paragraph (a) or (b) of this section, you must determine dioxins/furans toxic equivalency as follows:

(1) Measure the concentration of each dioxin/furan tetra- through octa-chlorinated isomer emitted using EPA Method 23.

(2) For each dioxin/furan (tetra- through octa-chlorinated) isomer measured in accordance with paragraph (c)(1) of this section, multiply the isomer concentration by its corresponding toxic equivalency factor specified in Table 4 to this subpart.

(3) Sum the products calculated in accordance with paragraph (c)(2) of this section to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

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(d) You must submit the annual compliance report specified in § 60.4915(d). You must submit the deviation report specified in § 60.4915(e) for each instance that you did not meet each emission limit in Table 1 or 2 to this subpart.

(e) If you demonstrate continuous compliance using a performance test, as specified in paragraph (a) of this section, then the provisions of this paragraph (e) apply. If a force majeure is about to occur, occurs, or has occurred for which you intend to assert a claim of force majeure, you must notify the Administrator in writing as specified in § 60.4915(g). You must conduct the performance test as soon as practicable after the force majeure occurs. The Administrator will determine whether or not to grant the extension to the performance test deadline, and will notify you in writing of approval or disapproval of the request for an extension as soon as practicable. Until an extension of the performance test deadline has been approved by the Administrator, you remain strictly subject to the requirements of this subpart.

(f) After any initial requests in § 60.4880 for alternative monitoring requirements for initial compliance, you may subsequently petition the Administrator for alternative monitoring parameters as specified in §§ 60.13(i) and 60.4880(e).

SOURCE: 36 FR 24877, Dec. 23, 1971; 50 FR 36834, Sept. 9, 1985; 52 FR 37874, Oct. 9, 1987; 53 FR 2675, Jan. 29, 1988; 57 FR 32338, July 21, 1992; 58 FR 40591, July 29, 1993; 60 FR 65384, Dec. 19, 1995; 62 FR 8328, Feb. 24, 1997; 62 FR 48379, Sept. 15, 1997; 64 FR 7463, Feb. 12, 1999; 65 FR 78275, Dec. 14, 2000; 72 FR 59204, Oct. 19, 2007; 76 FR 15404, March 21, 2011, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

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Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 60. Standards of Performance for New Stationary Sources (Refs & Annos)
Subpart LLLL. Standards of Performance for New Sewage Sludge Incineration Units (Refs & Annos)
Recordkeeping and Reporting
§ 60.4915 What reports must I submit?

You must submit the reports specified in paragraphs (a) through (j) of this section. See Table 5 to this subpart for a summary of these reports.

(a) Notification of construction. You must submit a notification prior to commencing construction that includes the four items listed in paragraphs (a)(1) through (a)(4) of this section:

(1) A statement of intent to construct.

(2) The anticipated date of commencement of construction.

(3) All documentation produced as a result of the siting requirements of § 60.4805.

(4) Anticipated date of initial startup.

(b) Notification of initial startup. You must submit the information specified in paragraphs (b)(1) through (b)(5) of this section prior to initial startup:

(1) The maximum design dry sludge burning capacity.

(2) The anticipated and permitted maximum dry sludge feed rate.

(3) If applicable, the petition for site-specific operating limits specified in § 60.4855.

(4) The anticipated date of initial startup.

(5) The site-specific monitoring plan required under § 60.4880, at least 60 days before your initial performance evaluation of your continuous monitoring system.

(6) The site-specific monitoring plan for your ash handling system required under § 60.4880, at least 60 days before your initial performance test to demonstrate compliance with your fugitive ash emission limit.

(c) Initial compliance report. You must submit the following information no later than 60 days following the initial performance test.

(1) Company name, physical address, and mailing address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report.

(4) The complete test report for the initial performance test results obtained by using the test methods specified in Table 1 or 2 to this sub-

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part.

(5) If an initial performance evaluation of a continuous monitoring system was conducted, the results of that initial performance evaluation.

(6) The values for the site-specific operating limits established pursuant to §§ 60.4850 and 60.4855 and the calculations and methods, as applicable, used to establish each operating limit.

(7) If you are using a fabric filter to comply with the emission limits, documentation that a bag leak detection system has been installed and is being operated, calibrated, and maintained as required by § 60.4850(b).

(8) The results of the initial air pollution control device inspection required in § 60.4875, including a description of repairs.

(d) Annual compliance report. You must submit an annual compliance report that includes the items listed in paragraphs (d)(1) through (d)(16) of this section for the reporting period specified in paragraph (d)(3) of this section. You must submit your first annual compliance report no later than 12 months following the submission of the initial compliance report in paragraph (c) of this section. You must submit subsequent annual compliance reports no more than 12 months following the previous annual compliance report. (You may be required to submit these reports (or additional compliance information) more frequently by the title V operating permit required in § 60.4920.)

(1) Company name, physical address, and mailing address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If a performance test was conducted during the reporting period, the results of that performance test.

(i) If operating limits were established during the performance test, include the value for each operating limit and, as applicable, the method used to establish each operating limit, including calculations.

(ii) If activated carbon is used during the performance test, include the type of activated carbon used.

(5) For each pollutant and operating parameter recorded using a continuous monitoring system, the highest average value and lowest average value recorded during the reporting period, as follows:

(i) For continuous emission monitoring systems and continuous automated sampling systems, report the highest and lowest 24–hour average emission value.

(ii) For continuous parameter monitoring systems, report the following values:

(A) For all operating parameters except scrubber liquid pH, the highest and lowest 12–hour average values.

(B) For scrubber liquid pH, the highest and

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lowest 3–hour average values.

(6) If there are no deviations during the reporting period from any emission limit, emission standard, or operating limit that applies to you, a statement that there were no deviations from the emission limits, emission standard, or operating limits.

(7) Information for bag leak detection systems recorded under § 60.4910(f)(3)(iii).

(8) If a performance evaluation of a continuous monitoring system was conducted, the results of that performance evaluation. If new operating limits were established during the performance evaluation, include your calculations for establishing those operating limits.

(9) If you elect to conduct performance tests less frequently as allowed in § 60.4885(a)(3) and did not conduct a performance test during the reporting period, you must include the dates of the last two performance tests, a comparison of the emission level you achieved in the last two performance tests to the 75 percent emission limit threshold specified in § 60.4885(a)(3), and a statement as to whether there have been any process changes and whether the process change resulted in an increase in emissions.

(10) Documentation of periods when all qualified SSI unit operators were unavailable for more than 8 hours, but less than 2 weeks.

(11) Results of annual air pollution control device inspections recorded under § 60.4910(d) for the reporting period, including a description of repairs.

(12) If there were no periods during the reporting period when your continuous monitoring systems had a malfunction, a statement that there were no periods during which your continuous monitoring systems had a malfunction.

(13) If there were no periods during the reporting period when a continuous monitoring system was out of control, a statement that there were no periods during which your continuous monitoring system was out of control.

(14) If there were no operator training deviations, a statement that there were no such deviations during the reporting period.

(15) If you did not make revisions to your site-specific monitoring plan during the reporting period, a statement that you did not make any revisions to your site-specific monitoring plan during the reporting period. If you made revisions to your site-specific monitoring plan during the reporting period, a copy of the revised plan.

(16) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction that occurred during the reporting period and that caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 60.11(d), including actions taken to correct a malfunction.

(e) Deviation reports.

(1) You must submit a deviation report if:

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(i) Any recorded operating parameter level, based on the averaging time specified in Table 3 to this subpart, is above the maximum operating limit or below the minimum operating limit established under this subpart.

(ii) The bag leak detection system alarm sounds for more than 5 percent of the operating time for the 6–month reporting period.

(iii) Any recorded 24–hour block average emissions level is above the emission limit, if a continuous monitoring system is used to comply with an emission limit.

(iv) There are visible emissions of combustion ash from an ash conveying system for more than 5 percent of the hourly observation period.

(v) A performance test was conducted that deviated from any emission limit in Table 1 or 2 to this subpart.

(vi) A continuous monitoring system was out of control.

(vii) You had a malfunction (e.g., continuous monitoring system malfunction) that caused or may have caused any applicable emission limit to be exceeded.

(2) The deviation report must be submitted by August 1 of that year for data collected during the first half of the calendar year (January 1 to June 30), and by February 1 of the following year for data you collected during the second half of the calendar year (July 1 to December 31).

(3) For each deviation where you are using a continuous monitoring system to comply with an associated emission limit or operating limit, report the items described in paragraphs (e)(3)(i) through (e)(3)(viii) of this section.

(i) Company name, physical address, and mailing address.

(ii) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(iii) The calendar dates and times your unit deviated from the emission limits, emission standards, or operating limits requirements.

(iv) The averaged and recorded data for those dates.

(v) Duration and cause of each deviation from the following:

(A) Emission limits, emission standards, operating limits, and your corrective actions.

(B) Bypass events and your corrective actions.

(vi) Dates, times, and causes for monitor downtime incidents.

(vii) A copy of the operating parameter monitoring data during each deviation and any test report that documents the emission levels.

(viii) If there were periods during which the continuous monitoring system malfunctioned or was out of control, you must include the following information for each deviation from an emission limit or operating limit:

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(A) The date and time that each malfunction started and stopped.

(B) The date, time, and duration that each continuous monitoring system was inoperative, except for zero (low-level) and high-level checks.

(C) The date, time, and duration that each continuous monitoring system was out of control, including start and end dates and hours and descriptions of corrective actions taken.

(D) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction, during a period when the system as out of control, or during another period.

(E) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(F) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(G) A summary of the total duration of continuous monitoring system downtime during the reporting period, and the total duration of continuous monitoring system downtime as a percent of the total operating time of the SSI unit at which the continuous monitoring system downtime occurred during that reporting period.

(H) An identification of each parameter and pollutant that was monitored at the SSI unit.

(I) A brief description of the SSI unit.

(J) A brief description of the continuous monitoring system.

(K) The date of the latest continuous monitoring system certification or audit.

(L) A description of any changes in continuous monitoring system, processes, or controls since the last reporting period.

(4) For each deviation where you are not using a continuous monitoring system to comply with the associated emission limit or operating limit, report the following items:

(i) Company name, physical address, and mailing address.

(ii) Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report.

(iii) The total operating time of each affected SSI during the reporting period.

(iv) The calendar dates and times your unit deviated from the emission limits, emission standards, or operating limits requirements.

(v) The averaged and recorded data for those dates.

(vi) Duration and cause of each deviation from

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the following:

(A) Emission limits, emission standard, and operating limits, and your corrective actions.

(B) Bypass events and your corrective actions.

(vii) A copy of any performance test report that showed a deviation from the emission limits or standard.

(viii) A brief description of any malfunction reported in paragraph (e)(1)(vii) of this section, including a description of actions taken during the malfunction to minimize emissions in accordance with 60.11(d) and to correct the malfunction.

(f) Qualified operator deviation.

(1) If all qualified operators are not accessible for 2 weeks or more, you must take the two actions in paragraphs (f)(1)(i) and (f)(1)(ii) of this section.

(i) Submit a notification of the deviation within 10 days that includes the three items in paragraphs (f)(1)(i)(A) through (f)(1)(i)(C) of this section.

(A) A statement of what caused the deviation.

(B) A description of actions taken to ensure that a qualified operator is accessible.

(C) The date when you anticipate that a qualified operator will be available.

(ii) Submit a status report to the Administrator every 4 weeks that includes the three items in paragraphs (f)(1)(ii)(A) through (f)(1)(ii)(C) of this section.

(A) A description of actions taken to ensure that a qualified operator is accessible.

(B) The date when you anticipate that a qualified operator will be accessible.

(C) Request for approval from the Administrator to continue operation of the SSI unit.

(2) If your unit was shut down by the Administrator, under the provisions of § 60.4835(b)(2)(i), due to a failure to provide an accessible qualified operator, you must notify the Administrator within 5 days of meeting § 60.4835(b)(2)(ii) that you are resuming operation.

(g) Notification of a force majeure. If a force majeure is about to occur, occurs, or has occurred for which you intend to assert a claim of force majeure:

(1) You must notify the Administrator, in writing as soon as practicable following the date you first knew, or through due diligence should have known that the event may cause or caused a delay in conducting a performance test beyond the regulatory deadline, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification must occur as soon as practicable.

(2) You must provide to the Administrator a written description of the force majeure event

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and a rationale for attributing the delay in conducting the performance test beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which you propose to conduct the performance test.

(h) Other notifications and reports required. You must submit other notifications as provided by § 60.7 and as follows:

(1) You must notify the Administrator 1 month before starting or stopping use of a continuous monitoring system for determining compliance with any emission limit.

(2) You must notify the Administrator at least 30 days prior to any performance test conducted to comply with the provisions of this subpart, to afford the Administrator the opportunity to have an observer present.

(3) As specified in § 60.4900(a)(8), you must notify the Administrator at least 7 days prior to the date of a rescheduled performance test for which notification was previously made in paragraph (h)(2) of this section.

(i) Report submission form.

(1) Submit initial, annual, and deviation reports electronically or in paper format, postmarked on or before the submittal due dates.

(2) As of January 1, 2012 and within 60 days after the date of completing each performance test, as defined in § 63.2, conducted to demonstrate compliance with this subpart, you must submit relative accuracy test audit (i.e., reference method) data and performance test (i.e., compliance test) data, except opacity data, electronically to EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) (see http://www.epa.gov/ttn/chief/ert/ert_tool.html/) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database.

(j) Changing report dates. If the Administrator agrees, you may change the semi-annual or annual reporting dates. See § 60.19(c) for procedures to seek approval to change your reporting date.

SOURCE: 36 FR 24877, Dec. 23, 1971; 50 FR 36834, Sept. 9, 1985; 52 FR 37874, Oct. 9, 1987; 53 FR 2675, Jan. 29, 1988; 57 FR 32338, July 21, 1992; 58 FR 40591, July 29, 1993; 60 FR 65384, Dec. 19, 1995; 62 FR 8328, Feb. 24, 1997; 62 FR 48379, Sept. 15, 1997; 64 FR 7463, Feb. 12, 1999; 65 FR 78275, Dec. 14, 2000; 72 FR 59204, Oct. 19, 2007; 76 FR 15404, March 21, 2011, unless otherwise noted.

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Code of Federal Regulations Currentness
Title 40. Protection of Environment
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Part 60. Standards of Performance for New Stationary Sources (Refs & Annos)
Subpart LLLL. Standards of Performance for New Sewage Sludge Incineration Units (Refs & Annos)
Continuous Compliance Requirements
§ 60.4890 How do I demonstrate continuous compliance with my operating limits?

You must continuously monitor your operating parameters as specified in paragraph (a) of this section and meet the requirements of paragraphs (b) and (c) of this section, according to the monitoring and calibration requirements in § 60.4905. You must confirm and re-establish your operating limits as specified in paragraph (d) of this section.

(a) You must continuously monitor the operating parameters specified in paragraphs (a)(1) and (a)(2) of this section using the continuous monitoring equipment and according to the procedures specified in § 60.4905 or established in § 60.4855. To determine compliance, you must use the data averaging period specified in Table 3 to this subpart (except for alarm time of the baghouse leak detection system) unless a different averaging period is established under § 60.4855.

(1) You must demonstrate that the SSI unit meets the operating limits established according to §§ 60.4855 and 60.4870 and paragraph (d) of this section for each applicable operating parameter.

(2) You must demonstrate that the SSI unit meets the operating limit for bag leak detection systems as follows:

(i) For a bag leak detection system, you must calculate the alarm time as follows:

(A) If inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted.

(B) If corrective action is required, each alarm time shall be counted as a minimum of 1 hour.

(C) If you take longer than 1 hour to initiate corrective action, each alarm time (i.e., time that the alarm sounds) is counted as the actual amount of time taken by you to initiate corrective action.

(ii) Your maximum alarm time is equal to 5 percent of the operating time during a 6–month period, as specified in § 60.4850(c).

(b) Operation above the established maximum, below the established minimum, or outside the allowable range of the operating limits specified in paragraph (a) of this section constitutes a deviation from your operating limits established under this subpart, except during performance tests conducted to determine compliance with the emission and operating limits or to establish new operating limits. You must submit the deviation report specified in § 60.4915(e) for each instance that you did not meet one of your operating limits established under this

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subpart.

(c) You must submit the annual compliance report specified in § 60.4915(d) to demonstrate continuous compliance.

(d) You must confirm your operating limits according to paragraph (d)(1) of this section or re-establish operating limits according to paragraph (d)(2) of this section. Your operating limits must be established so as to assure ongoing compliance with the emission limits. These requirements also apply to your operating requirements in your fugitive emissions monitoring plan specified in § 60.4850(d).

(1) Your operating limits must be based on operating data recorded during any performance test required in § 60.4885(a) or any performance evaluation required in § 60.4885(b)(5).

(2) You may conduct a repeat performance test at any time to establish new values for the operating limits to apply from that point forward.

SOURCE: 36 FR 24877, Dec. 23, 1971; 50 FR 36834, Sept. 9, 1985; 52 FR 37874, Oct. 9, 1987; 53 FR 2675, Jan. 29, 1988; 57 FR 32338, July 21, 1992; 58 FR 40591, July 29, 1993; 60 FR 65384, Dec. 19, 1995; 62 FR 8328, Feb. 24, 1997; 62 FR 48379, Sept. 15, 1997; 64 FR 7463, Feb. 12, 1999; 65 FR 78275, Dec. 14, 2000; 72 FR 59204, Oct. 19, 2007; 76 FR 15404, March 21, 2011, unless otherwise noted.

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Subpart LLLL. Standards of Performance for New Sewage Sludge Incineration Units (Refs & Annos)
Performance Testing, Monitoring, and Calibration Requirements
§ 60.4900 What are the performance testing, monitoring, and calibration requirements for compliance with the emission limits and standards?

You must meet, as applicable, the performance testing requirements specified in paragraph (a) of this section, the monitoring requirements specified in paragraph (b) of this section, the air pollution control device inspections requirements specified in paragraph (c) of this section, and the bypass stack provisions specified in paragraph (d) of this section.

(a) Performance testing requirements.

(1) All performance tests must consist of a minimum of three test runs conducted under conditions representative of normal operations, as specified in § 60.8(c). Emissions in excess of the emission limits or standards during periods of startup, shutdown, and malfunction are considered deviations from the applicable emission limits or standards.

(2) You must document that the dry sludge burned during the performance test is representative of the sludge burned under normal operating conditions by:

(i) Maintaining a log of the quantity of sewage sludge burned during the performance test by continuously monitoring and recording the average hourly rate that sewage sludge is fed to the incinerator.

(ii) Maintaining a log of the moisture content of the sewage sludge burned during the performance test by taking grab samples of the sewage sludge fed to the incinerator for each 8 hour period that testing is conducted.

(3) All performance tests must be conducted using the test methods, minimum sampling volume, observation period, and averaging methods specified in Table 1 or 2 to this subpart.

(4) Method 1 at 40 CFR part 60, appendix A–1 must be used to select the sampling location and number of traverse points.

(5) Method 3A or 3B at 40 CFR part 60, appendix A–2 must be used for gas composition analysis, including measurement of oxygen concentration. Method 3A or 3B at 40 CFR part 60, appendix A–2 must be used simultaneously with each method.

(6) All pollutant concentrations must be adjusted to 7 percent oxygen using Equation 1 of this section:

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$$C_{adj} = C_{meas}(20.9-7)/(20.9-\%O_2) \quad \text{(Eq. 1)}$$

Where:

C_{adj} = Pollutant concentration adjusted to 7 percent oxygen.

C_{meas} = Pollutant concentration measured on a dry basis.

(20.9–7) = 20.9 percent oxygen–7 percent oxygen (defined oxygen correction basis).

20.9 = Oxygen concentration in air, percent.

$\%O_2$ = Oxygen concentration measured on a dry basis, percent.

(7) Performance tests must be conducted and data reduced in accordance with the test methods and procedures contained in this subpart unless the Administrator does one of the following.

(i) Specifies or approves, in specific cases, the use of a method with minor changes in methodology.

(ii) Approves the use of an equivalent method.

(iii) Approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance.

(iv) Waives the requirement for performance tests because you have demonstrated by other means to the Administrator's satisfaction that the affected SSI unit is in compliance with the standard.

(v) Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph is construed to abrogate the Administrator's authority to require testing under section 114 of the Clean Air Act.

(8) You must provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, you must notify the Administrator as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator by mutual agreement.

(9) You must provide, or cause to be provided, performance testing facilities as follows:

(i) Sampling ports adequate for the test methods applicable to the SSI unit, as follows:

(A) Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures.

(B) Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods

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and procedures.

(ii) Safe sampling platform(s).

(iii) Safe access to sampling platform(s).

(iv) Utilities for sampling and testing equipment.

(10) Unless otherwise specified in this subpart, each performance test must consist of three separate runs using the applicable test method. Each run must be conducted for the time and under the conditions specified in the applicable standard. Compliance with each emission limit must be determined by calculating the arithmetic mean of the three runs. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond your control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

(11) During each test run specified in paragraph (a)(1) of this section, you must operate your sewage sludge incinerator at a minimum of 85 percent of your maximum permitted capacity.

(b) Continuous monitor requirements. You must meet the following requirements, as applicable, when using a continuous monitoring system to demonstrate compliance with the emission limits in Table 1 or 2 to this subpart. The option to use a continuous emissions monitoring system for hydrogen chloride, dioxins/furans, cadmium, or lead takes effect on the date a final performance specification applicable to hydrogen chloride, dioxins/furans, cadmium, or lead is published in the Federal Register. If you elect to use a continuous emissions monitoring system instead of conducting annual performance testing, you must meet the requirements of paragraphs (b)(1) through (b)(6) of this section. If you elect to use a continuous automated sampling system instead of conducting annual performance testing, you must meet the requirements of paragraph (b)(7) of this section. The option to use a continuous automated sampling system for dioxins/furans takes effect on the date a final performance specification for such a continuous automated sampling system is published in the Federal Register.

(1) You must notify the Administrator one month before starting use of the continuous monitoring system.

(2) You must notify the Administrator one month before stopping use of the continuous monitoring system, in which case you must also conduct a performance test prior to ceasing operation of the system.

(3) You must install, operate, calibrate, and maintain an instrument for continuously measuring and recording the emissions to the atmosphere in accordance with the following:

(i) Section 60.13 of subpart A of this part.

(ii) The following performance specifications of appendix B of this part, as applicable:

(A) For particulate matter, Performance Specification 11 of appendix B of this part.

(B) For hydrogen chloride, Performance Specification 15 of appendix B of this part.

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(C) For carbon monoxide, Performance Specification 4B of appendix B of this part with the modifications shown in Tables 1 and 2 to this subpart.

(D) [Reserved]

(E) For mercury, Performance Specification 12A of appendix B of this part.

(F) For nitrogen oxides, Performance Specification 2 of appendix B of this part.

(G) For sulfur dioxide, Performance Specification 2 of appendix B of this part.

(iii) For continuous emissions monitoring systems, the quality assurance procedures (e.g., quarterly accuracy determinations and daily calibration drift tests) of appendix F of this part specified in paragraphs (b)(3)(iii)(A) through (b)(3)(iii)(G) of this section. For each pollutant, the span value of the continuous emissions monitoring system is two times the applicable emission limit, expressed as a concentration.

(A) For particulate matter, Procedure 2 in appendix F of this part.

(B) For hydrogen chloride, Procedure 1 in appendix F of this part except that the Relative Accuracy Test Audit requirements of Procedure 1 shall be replaced with the validation requirements and criteria of sections 11.1.1 and 12.0 of Performance Specification 15 of appendix B of this part.

(C) For carbon monoxide, Procedure 1 in appendix F of this part.

(D) [Reserved]

(E) For mercury, Procedures 5 in appendix F of this part.

(F) For nitrogen oxides, Procedure 1 in appendix F of this part.

(G) For sulfur dioxide, Procedure 1 in appendix F of this part.

(iv) If your monitoring system has a malfunction or out-of-control period, you must complete repairs and resume operation of your monitoring system as expeditiously as possible.

(4) During each relative accuracy test run of the continuous emissions monitoring system using the performance specifications in paragraph (b)(3)(ii) of this section, emission data for each regulated pollutant and oxygen (or carbon dioxide as established in paragraph (b)(5) of this section) must be collected concurrently (or within a 30- to 60–minute period) by both the continuous emissions monitoring systems and the test methods specified in paragraphs (b)(4)(i) through (b)(4)(viii) of this section. Relative accuracy testing must be at representative operating conditions while the SSI unit is charging sewage sludge.

(i) For particulate matter, Method 5 at 40 CFR part 60, appendix A–3 or Method 26A or 29 at 40 CFR part 60, appendix A–8 shall be used.

(ii) For hydrogen chloride, Method 26 or 26A at 40 CFR part 60, appendix A–8, shall be used as specified in Tables 2 and 3 to this subpart.

(iii) For carbon monoxide, Method 10, 10A, or 10B at 40 CFR part 60, appendix A–4, shall be

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used.

(iv) For dioxins/furans, Method 23 at 40 CFR part 60, appendix A–7, shall be used.

(v) For mercury, cadmium, and lead, Method 29 at 40 CFR part 60, appendix A–8 shall be used. Alternatively for mercury, Method 30B at 40 CFR part 60, appendix A–8 or ASTM D6784–02 (Reapproved 2008) (incorporated by reference, see § 60.17), may be used.

(vi) For nitrogen oxides, Method 7 or 7E at 40 CFR part 60, appendix A–4, shall be used.

(vii) For sulfur dioxide, Method 6 or 6C at 40 CFR part 60, appendix A–4, or as an alternative ANSI/ASME PTC 19.10–1981 (incorporated by reference, see 60.17) must be used. For sources that have actual inlet emissions less than 100 parts per million dry volume, the relative accuracy criterion for inlet sulfur dioxide continuous emissions monitoring system should be no greater than 20 percent of the mean value of the method test data in terms of the units of the emission standard, or 5 parts per million dry volume absolute value of the mean difference between the method and the continuous emissions monitoring system, whichever is greater.

(viii) For oxygen (or carbon dioxide as established in (b)(5) of this section), Method 3A or 3B at 40 CFR part 60, appendix A–2, or as an alternative ANSI/ASME PTC 19.10–1981 (incorporated by reference, see § 60.17), as applicable, must be used.

(5) You may request that compliance with the emission limits be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. If carbon dioxide is selected for use in diluent corrections, the relationship between oxygen and carbon dioxide levels must be established during the initial performance test according to the procedures and methods specified in paragraphs (b)(5)(i) through (b)(5)(iv) of this section. This relationship may be re-established during subsequent performance tests.

(i) The fuel factor equation in Method 3B at 40 CFR part 60, appendix A–2 must be used to determine the relationship between oxygen and carbon dioxide at a sampling location. Method 3A or 3B at 50 CFR part 60, appendix A–2, or as an alternative ANSI/ASME PTC 19.10–1981 (incorporated by reference, see § 60.17), as applicable, must be used to determine the oxygen concentration at the same location as the carbon dioxide monitor.

(ii) Samples must be taken for at least 30 minutes in each hour.

(iii) Each sample must represent a 1–hour average.

(iv) A minimum of three runs must be performed.

(6) You must operate the continuous monitoring system and collect data with the continuous monitoring system as follows:

(i) You must collect data using the continuous monitoring system at all times the affected SSI unit is operating and at the intervals specified in paragraph (b)(6)(ii) of this section, except for periods of monitoring system malfunctions that occur during periods specified in § 60.4880(a)(7)(i), repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality con-

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trol activities (including, as applicable, calibration checks and required zero and span adjustments). Any such periods that you do not collect data using the continuous monitoring system constitute a deviation from the monitoring requirements and must be reported in a deviation report.

(ii) You must collect continuous emissions monitoring system data in accordance with § 60.13(e)(2).

(iii) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities conducted during monitoring system malfunctions must not be included in calculations used to report emissions or operating levels. Any such periods must be reported in a deviation report.

(iv) Any data collected during periods when the monitoring system is out of control as specified in § 60.4880(a)(7)(i), repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or control activities conducted during out-of-control periods must not be included in calculations used to report emissions or operating levels. Any such periods that do not coincide with a monitoring system malfunction constitute a deviation from the monitoring requirements and must be reported in a deviation report.

(v) You must use all the data collected during all periods except those periods specified in paragraphs (b)(6)(iii) and (b)(6)(iv) of this section in assessing the operation of the control device and associated control system.

(7) If you elect to use a continuous automated sampling system instead of conducting annual performance testing, you must:

(i) Install, calibrate, maintain, and operate a continuous automated sampling system according to the site-specific monitoring plan developed in § 60.58b(p)(1) through (p)(6), (p)(9), (p)(10), and (q).

(ii) Collect data according to § 60.58b(p)(5) and paragraph (b)(6) of this section.

(c) Air pollution control device inspections. You must conduct air pollution control device inspections that include, at a minimum, the following:

(1) Inspect air pollution control device(s) for proper operation.

(2) Generally observe that the equipment is maintained in good operating condition.

(3) Develop a site-specific monitoring plan according to the requirements in § 60.4880. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under § 60.13(i).

(d) Bypass stack. Use of the bypass stack at any time that sewage sludge is being charged to the SSI unit is an emissions standards deviation for all pollutants listed in Table 1 or 2 to this subpart. The use of the bypass stack during a performance test invalidates the performance test.

SOURCE: 36 FR 24877, Dec. 23, 1971; 50 FR 36834, Sept. 9, 1985; 52 FR 37874, Oct. 9, 1987; 53 FR 2675, Jan. 29, 1988; 57 FR 32338, July 21, 1992; 58 FR 40591, July 29, 1993; 60 FR 65384, Dec. 19, 1995; 62 FR 8328, Feb. 24, 1997; 62 FR

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48379, Sept. 15, 1997; 64 FR 7463, Feb. 12, 1999; 65 FR 78275, Dec. 14, 2000; 72 FR 59204, Oct. 19, 2007; 76 FR 15404, March 21, 2011, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

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Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 60. Standards of Performance for New Stationary Sources (Refs & Annos)
Subpart LLLL. Standards of Performance for New Sewage Sludge Incineration Units (Refs & Annos)
Definitions
§ 60.4930 What definitions must I know?

Terms used but not defined in this subpart are defined in the Clean Air Act and § 60.2.

Affected source means a sewage sludge incineration unit as defined in § 60.4930.

Affirmative defense means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

Auxiliary fuel means natural gas, liquefied petroleum gas, fuel oil, or diesel fuel.

Bag leak detection system means an instrument that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter (i.e., baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.

Bypass stack means a device used for discharging combustion gases to avoid severe damage to the air pollution control device or other equipment.

Calendar year means 365 consecutive days starting on January 1 and ending on December 31.

Continuous automated sampling system means the total equipment and procedures for automated sample collection and sample recovery/analysis to determine a pollutant concentration or emission rate by collecting a single integrated sample(s) or multiple integrated sample(s) of the pollutant (or diluent gas) for subsequent on- or off-site analysis; integrated sample(s) collected are representative of the emissions for the sample time as specified by the applicable requirement.

Continuous emissions monitoring system means a monitoring system for continuously measuring and recording the emissions of a pollutant from an affected facility.

Continuous monitoring system (CMS) means a continuous emissions monitoring system, continuous automated sampling system, continuous parameter monitoring system, or other manual or automatic monitoring that is used for demonstrating compliance with an applicable regulation on a continuous basis as defined by this subpart. The term refers to the total equipment used to sample and condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters.

Continuous parameter monitoring system means a monitoring system for continuously measuring and recording operating conditions associated with air pollution control device systems (e.g., operating temperature, pressure, and power).

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation es-

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tablished by this subpart, including but not limited to any emission limit, operating limit, or operator qualification and accessibility requirements.

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit.

Dioxins/furans means tetra- through octachlorinated dibenzo-p-dioxins and dibenzofurans.

Electrostatic precipitator or wet electrostatic precipitator means an air pollution control device that uses both electrical forces and, if applicable, water to remove pollutants in the exit gas from a sewage sludge incinerator stack.

Existing sewage sludge incineration unit means a sewage sludge incineration unit the construction of which is commenced on or before October 14, 2010.

Fabric filter means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse.

Fluidized bed incinerator means an enclosed device in which organic matter and inorganic matter in sewage sludge are combusted in a bed of particles suspended in the combustion chamber gas.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused, in part, by poor maintenance or careless operation are not malfunctions.

Modification means a change to an existing SSI unit later than September 21, 2011 and that meets one of two criteria:

(1) The cumulative cost of the changes over the life of the unit exceeds 50 percent of the original cost of building and installing the SSI unit (not including the cost of land) updated to current costs (current dollars). To determine what systems are within the boundary of the SSI unit used to calculate these costs, see the definition of SSI unit.

(2) Any physical change in the SSI unit or change in the method of operating it that increases the amount of any air pollutant emitted for which section 129 or section 111 of the Clean Air Act has established standards.

Modified sewage sludge incineration (SSI) unit means an existing SSI unit that undergoes a modification, as defined in this section.

Multiple hearth incinerator means a circular steel furnace that contains a number of solid refractory hearths and a central rotating shaft; rabble arms that are designed to slowly rake the sludge on the hearth are attached to the rotating shaft. Dewatered sludge enters at the top and proceeds downward through the furnace from hearth to hearth, pushed along by the rabble arms.

New sewage sludge incineration unit means a SSI unit the construction of which is commenced after October 14, 2010 which would be applicable to such unit or a modified solid waste incineration unit.

Operating day means a 24–hour period between 12:00 midnight and the following midnight during which any amount of sewage sludge is combusted at any time in the SSI unit.

Particulate matter means filterable particulate matter emitted from SSI units as measured by Method 5 at 40 CFR part 60, appendix A–3 or Methods 26A or 29 at 40 CFR part 60, appendix A–8.

Power input to the electrostatic precipitator means the product of the test-run average secondary voltage and the test-run average secondary amperage to the electrostatic precipitator collection plates.

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Process change means a significant permit revision, but only with respect to those pollutant-specific emission units for which the proposed permit revision is applicable, including but not limited to:

(1) A change in the process employed at the wastewater treatment facility associated with the affected SSI unit (e.g., the addition of tertiary treatment at the facility, which changes the method used for disposing of process solids and processing of the sludge prior to incineration).

(2) A change in the air pollution control devices used to comply with the emission limits for the affected SSI unit (e.g., change in the sorbent used for activated carbon injection).

Sewage sludge means solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incineration unit or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works.

Sewage sludge feed rate means the rate at which sewage sludge is fed into the incinerator unit.

Sewage sludge incineration (SSI) unit means an incineration unit combusting sewage sludge for the purpose of reducing the volume of the sewage sludge by removing combustible matter. Sewage sludge incineration unit designs include fluidized bed and multiple hearth. A SSI unit also includes, but is not limited to, the sewage sludge feed system, auxiliary fuel feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The SSI unit includes all ash handling systems connected to the bottom ash handling system. The combustion unit bottom ash system ends at the truck loading station or similar equipment that transfers the ash to final disposal. The SSI unit does not include air pollution control equipment or the stack.

Shutdown means the period of time after all sewage sludge has been combusted in the primary chamber.

Solid waste means any garbage, refuse, sewage sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1342), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2014).

Standard conditions, when referring to units of measure, means a temperature of 68 °F (20 °C) and a pressure of 1 atmosphere (101.3 kilopascals).

Startup means the period of time between the activation, including the firing of fuels (e.g., natural gas or distillate oil), of the system and the first feed to the unit.

Toxic equivalency means the product of the concentration of an individual dioxin isomer in an environmental mixture and the corresponding estimate of the compound-specific toxicity relative to tetrachlorinated dibenzo-p-dioxin, referred to as the toxic equivalency factor for that compound. Table 4 to this subpart lists the toxic equivalency factors.

Wet scrubber means an add-on air pollution control device that utilizes an aqueous or alkaline scrubbing liquid to collect particulate matter (including nonvaporous metals and condensed organics) and/or to absorb and neutralize acid gases.

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You means the owner or operator of a SSI unit that meets the criteria in § 60.4770.

SOURCE: 36 FR 24877, Dec. 23, 1971; 50 FR 36834, Sept. 9, 1985; 52 FR 37874, Oct. 9, 1987; 53 FR 2675, Jan. 29, 1988; 57 FR 32338, July 21, 1992; 58 FR 40591, July 29, 1993; 60 FR 65384, Dec. 19, 1995; 62 FR 8328, Feb. 24, 1997; 62 FR 48379, Sept. 15, 1997; 64 FR 7463, Feb. 12, 1999; 65 FR 78275, Dec. 14, 2000; 72 FR 59204, Oct. 19, 2007; 76 FR 15404, March 21, 2011, unless otherwise noted.

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Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 60. Standards of Performance for New Stationary Sources (Refs & Annos)
Subpart MMMM. Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units (Refs & Annos)
Model Rule--Initial Compliance Requirements
§ 60.5185 How and when do I demonstrate initial compliance with the emission limits and standards?

To demonstrate initial compliance with the emission limits and standards in Table 2 or 3 to this subpart, use the procedures specified in paragraph (a) of this section. In lieu of using the procedures specified in paragraph (a) of this section, you have the option to demonstrate initial compliance using the procedures specified in paragraph (b) of this section for particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, lead, and fugitive emissions from ash handling. You must meet the requirements of paragraphs (a) and (b) of this section, as applicable, and paragraphs (c) through (e) of this section, according to the performance testing, monitoring, and calibration requirements in § 60.5220(a) and (b).

(a) Demonstrate initial compliance using the performance test required in § 60.8. You must demonstrate that your SSI unit meets the emission limits and standards specified in Table 2 or 3 to this subpart for particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, lead, and fugitive emissions from ash handling using the performance test. The initial performance test must be conducted using the test methods, averaging methods, and minimum sampling volumes or durations specified in Table 2 or 3 to this subpart and according to the testing, monitoring, and calibration requirements specified in § 60.5220(a).

(1) Except as provided in paragraph (e) of this section, you must demonstrate that your SSI unit meets the emission limits and standards specified in Table 2 or 3 to this subpart by your final compliance date (see Table 1 to this subpart).

(2) You may use the results from a performance test conducted within the 2 previous years that was conducted under the same conditions and demonstrated compliance with the emission limits and standards in Table 2 or 3 to this subpart, provided no process changes have been made since you conducted that performance test. However, you must continue to meet the operating limits established during the most recent performance test that demonstrated compliance with the emission limits and standards in Table 2 or 3 to this subpart. The performance test must have used the test methods specified in Table 2 or 3 to this subpart.

(b) Demonstrate initial compliance using a continuous emissions monitoring system or continuous automated sampling system. The option to use a continuous emissions monitoring system for hydrogen chloride, dioxins/furans, cadmium, or lead takes effect on the date a final performance specification applicable to hydrogen chloride, dioxins/

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furans, cadmium, or lead is published in the Federal Register. The option to use a continuous automated sampling system for dioxins/furans takes effect on the date a final performance specification for such a continuous automated sampling system is published in the Federal Register. Collect data as specified in § 60.5220(b)(6) and use the following procedures:

(1) To demonstrate initial compliance with the emission limits specified in Table 2 or 3 to this subpart for particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, and lead, you may substitute the use of a continuous monitoring system in lieu of conducting the initial performance test required in paragraph (a) of this section, as follows:

(i) You may substitute the use of a continuous emissions monitoring system for any pollutant specified in paragraph (b)(1) of this section in lieu of conducting the initial performance test for that pollutant in paragraph (a) of this section. For determining compliance with the carbon monoxide concentration limit using carbon monoxide CEMS, the correction to 7 percent oxygen does not apply during periods of startup or shutdown. Use the measured carbon monoxide concentration without correcting for oxygen concentration in averaging with other carbon monoxide concentrations (corrected to 7 percent oxygen) to determine the 24–hour average value.

(ii) You may substitute the use of a continuous automated sampling system for mercury or dioxins/furans in lieu of conducting the annual mercury or dioxin/furan performance test in paragraph (a) of this section.

(2) If you use a continuous emissions monitoring system to demonstrate compliance with an applicable emission limit in Table 2 or 3 to this subpart, as described in paragraph (b)(1) of this section, you must use the continuous emissions monitoring system and follow the requirements specified in § 60.5220(b). You must measure emissions according to § 60.13 to calculate 1–hour arithmetic averages, corrected to 7 percent oxygen (or carbon dioxide). You must demonstrate initial compliance using a 24–hour block average of these 1–hour arithmetic average emission concentrations, calculated using Equation 19–19 in section 12.4.1 of Method 19 of 40 CFR part 60, appendix A–7.

(3) If you use a continuous automated sampling system to demonstrate compliance with an applicable emission limit in Table 2 or 3 to this subpart, as described in paragraph (b)(1) of this section, you must:

(i) Use the continuous automated sampling system specified in § 60.58b(p) and (q), and measure and calculate average emissions corrected to 7 percent oxygen (or carbon dioxide) according to § 60.58b(p) and your monitoring plan.

(A) Use the procedures specified in § 60.58b(p) to calculate 24–hour block averages to determine compliance with the mercury emission limit in Table 2 to this subpart.

(B) Use the procedures specified in § 60.58b(p) to calculate 2–week block averages to determine compliance with the dioxin/furan (total mass basis or toxic equivalency basis) emission limit in Table 2 to this subpart.

(ii) Comply with the provisions in § 60.58b(q) to develop a monitoring plan. For mercury continuous automated sampling systems, you must

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use Performance Specification 12B of appendix B of part 75 and Procedure 5 of appendix F of this part.

(4) Except as provided in paragraph (e) of this section, you must complete your initial performance evaluations required under your monitoring plan for any continuous emissions monitoring systems and continuous automated sampling systems by your final compliance date (see Table 1 to this subpart). Your performance evaluation must be conducted using the procedures and acceptance criteria specified in § 60.5200(a)(3).

(c) To demonstrate initial compliance with the dioxins/furans toxic equivalency emission limit in Table 2 or 3 to this subpart, determine dioxins/furans toxic equivalency as follows:

(1) Measure the concentration of each dioxin/furan tetra- through octachlorinated-isomer emitted using EPA Method 23 at 40 CFR part 60, appendix A–7.

(2) Multiply the concentration of each dioxin/furan (tetra- through octa-chlorinated) isomer by its corresponding toxic equivalency factor specified in Table 5 to this subpart.

(3) Sum the products calculated in accordance with paragraph (c)(2) of this section to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

(d) Submit an initial compliance report, as specified in § 60.5235(b).

(e) If you demonstrate initial compliance using the performance test specified in paragraph (a) of this section, then the provisions of this paragraph (e) apply. If a force majeure is about to occur, occurs, or has occurred for which you intend to assert a claim of force majeure, you must notify the Administrator in writing as specified in § 60.5235(g). You must conduct the initial performance test as soon as practicable after the force majeure occurs. The Administrator will determine whether or not to grant the extension to the initial performance test deadline, and will notify you in writing of approval or disapproval of the request for an extension as soon as practicable. Until an extension of the performance test deadline has been approved by the Administrator, you remain strictly subject to the requirements of this subpart.

SOURCE: 36 FR 24877, Dec. 23, 1971; 50 FR 36834, Sept. 9, 1985; 52 FR 37874, Oct. 9, 1987; 53 FR 2675, Jan. 29, 1988; 57 FR 32338, July 21, 1992; 58 FR 40591, July 29, 1993; 60 FR 65384, Dec. 19, 1995; 62 FR 8328, Feb. 24, 1997; 62 FR 48379, Sept. 15, 1997; 64 FR 7463, Feb. 12, 1999; 65 FR 78275, Dec. 14, 2000; 72 FR 59204, Oct. 19, 2007; 76 FR 15404, 15429, March 21, 2011, unless otherwise noted.

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Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 60. Standards of Performance for New Stationary Sources (Refs & Annos)
Subpart MMMM. Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units (Refs & Annos)
Model Rule--Continuous Compliance Requirements
§ 60.5205 How and when do I demonstrate continuous compliance with the emission limits and standards?

To demonstrate continuous compliance with the emission limits and standards specified in Table 2 or 3 to this subpart, use the procedures specified in paragraph (a) of this section. In lieu of using the procedures specified in paragraph (a) of this section, you have the option to demonstrate initial compliance using the procedures specified in paragraph (b) of this section for particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, lead, and fugitive emissions from ash handling. You must meet the requirements of paragraphs (a) and (b) of this section, as applicable, and paragraphs (c) through (e) of this section, according to the performance testing, monitoring, and calibration requirements in § 60.5220(a) and (b). You may also petition the Administrator for alternative monitoring parameters as specified in paragraph (f) of this section.

(a) Demonstrate continuous compliance using a performance test. Except as provided in paragraphs (a)(3) and (e) of this section, following the date that the initial performance test for each pollutant in Table 2 or 3 to this subpart is completed, you must conduct a performance test for each such pollutant on an annual basis (between 11 and 13 calendar months following the previous performance test). The performance test must be conducted using the test methods, averaging methods, and minimum sampling volumes or durations specified in Table 2 or 3 to this subpart and according to the testing, monitoring, and calibration requirements specified in § 60.5220(a).

(1) You may conduct a repeat performance test at any time to establish new values for the operating limits to apply from that point forward. The Administrator may request a repeat performance test at any time.

(2) You must repeat the performance test within 60 days of a process change, as defined in § 60.5250.

(3) Except as specified in paragraphs (a)(1) and (2) of this section, you can conduct performance tests less often for a given pollutant, as specified in paragraphs (a)(3)(i) through (iii) of this section.

(i) You can conduct performance tests less often if your performance tests for the pollutant for at least 2 consecutive years show that your emissions are at or below 75 percent of the emission limit specified in Table 2 or 3 to this subpart, and there are no changes in the operation of the affected source or air pollution control equipment that could increase emissions. In this case, you do not have to conduct a performance test for that pollutant for the next 2

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years. You must conduct a performance test during the third year and no more than 37 months after the previous performance test.

(ii) If your SSI unit continues to meet the emission limit for the pollutant, you may choose to conduct performance tests for the pollutant every third year if your emissions are at or below 75 percent of the emission limit, and if there are no changes in the operation of the affected source or air pollution control equipment that could increase emissions, but each such performance test must be conducted no more than 37 months after the previous performance test.

(iii) If a performance test shows emissions exceeded 75 percent of the emission limit for a pollutant, you must conduct annual performance tests for that pollutant until all performance tests over 2 consecutive years show compliance.

(b) Demonstrate continuous compliance using a continuous emissions monitoring system or continuous automated sampling system. The option to use a continuous emissions monitoring system for hydrogen chloride, dioxins/furans, cadmium, or lead takes effect on the date a final performance specification applicable to hydrogen chloride, dioxins/furans, cadmium, or lead is published in the Federal Register. The option to use a continuous automated sampling system for dioxins/furans takes effect on the date a final performance specification for such a continuous automated sampling system is published in the Federal Register. Collect data as specified in § 60.5220(b)(6) and use the following procedures:

(1) To demonstrate continuous compliance with the emission limits for particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, and lead, you may substitute the use of a continuous monitoring system in lieu of conducting the annual performance test required in paragraph (a) of this section, as follows:

(i) You may substitute the use of a continuous emissions monitoring system for any pollutant specified in paragraph (b)(1) of this section in lieu of conducting the annual performance test for that pollutant in paragraph (a) of this section. For determining compliance with the carbon monoxide concentration limit using carbon monoxide CEMS, the correction to 7 percent oxygen does not apply during periods of startup or shutdown. Use the measured carbon monoxide concentration without correcting for oxygen concentration in averaging with other carbon monoxide concentrations (corrected to 7 percent oxygen) to determine the 24–hour average value.

(ii) You may substitute the use of a continuous automated sampling system for mercury or dioxins/furans in lieu of conducting the annual mercury or dioxin/furan performance test in paragraph (a) of this section.

(2) If you use a continuous emissions monitoring system to demonstrate compliance with an applicable emission limit in paragraph (b)(1) of this section, you must use the continuous emissions monitoring system and follow the requirements specified in § 60.5220(b). You must measure emissions according to § 60.13 to calculate 1–hour arithmetic averages, corrected to 7 percent oxygen (or carbon dioxide). You must demonstrate initial compliance using a 24–hour block average of these 1–hour arithmetic average emission concentrations, calculated using Equation 19–19 in section 12.4.1 of Method 19 of 40 CFR part 60, appendix A–7.

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(3) If you use a continuous automated sampling system to demonstrate compliance with an applicable emission limit in paragraph (b)(1) of this section, you must:

(i) Use the continuous automated sampling system specified in § 60.58b(p) and (q), and measure and calculate average emissions corrected to 7 percent oxygen (or carbon dioxide) according to § 60.58b(p) and your monitoring plan.

(A) Use the procedures specified in § 60.58b(p) to calculate 24–hour averages to determine compliance with the mercury emission limit in Table 2 to this subpart.

(B) Use the procedures specified in § 60.58b(p) to calculate 2–week averages to determine compliance with the dioxin/furan (total mass basis or toxic equivalency basis) emission limits in Table 2 to this subpart.

(ii) Update your monitoring plan as specified in § 60.4880(e). For mercury continuous automated sampling systems, you must use Performance Specification 12B of appendix B of part 75 and Procedure 5 of appendix F of this part.

(4) Except as provided in paragraph (e) of this section, you must complete your periodic performance evaluations required in your monitoring plan for any continuous emissions monitoring systems and continuous automated sampling systems, according to the schedule specified in your monitoring plan. If you were previously determining compliance by conducting an annual performance test (or according to the less frequent testing for a pollutant as provided in paragraph (a)(3) of this section), you must complete the initial performance evaluation required under your monitoring plan in § 60.5200 for the continuous monitoring system prior to using the continuous emissions monitoring system to demonstrate compliance or continuous automated sampling system. Your performance evaluation must be conducted using the procedures and acceptance criteria specified in § 60.5200(a)(3).

(c) To demonstrate compliance with the dioxins/furans toxic equivalency emission limit in paragraph (a) or (b) of this section, you must determine dioxins/furans toxic equivalency as follows:

(1) Measure the concentration of each dioxin/furan tetra- through octachlorinated-isomer emitted using Method 23 at 40 CFR part 60, appendix A–7.

(2) For each dioxin/furan (tetra- through octachlorinated) isomer measured in accordance with paragraph (c)(1) of this section, multiply the isomer concentration by its corresponding toxic equivalency factor specified in Table 5 to this subpart.

(3) Sum the products calculated in accordance with paragraph (c)(2) of this section to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

(d) You must submit an annual compliance report as specified in § 60.5235(c). You must submit a deviation report as specified in § 60.5235(d) for each instance that you did not meet each emission limit in Table 2 to this subpart.

(e) If you demonstrate continuous compliance using a performance test, as specified in paragraph (a) of this section, then the provisions of this paragraph (e) apply. If a force majeure is about to occur, occurs, or has occurred for which you intend to assert

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a claim of force majeure, you must notify the Administrator in writing as specified in § 60.5235(g). You must conduct the performance test as soon as practicable after the force majeure occurs. The Administrator will determine whether or not to grant the extension to the performance test deadline, and will notify you in writing of approval or disapproval of the request for an extension as soon as practicable. Until an extension of the performance test deadline has been approved by the Administrator, you remain strictly subject to the requirements of this subpart.

(f) After any initial requests in § 60.5200 for alternative monitoring requirements for initial compliance, you may subsequently petition the Administrator for alternative monitoring parameters as specified in §§ 60.13(i) and 60.5200(e).

SOURCE: 36 FR 24877, Dec. 23, 1971; 50 FR 36834, Sept. 9, 1985; 52 FR 37874, Oct. 9, 1987; 53 FR 2675, Jan. 29, 1988; 57 FR 32338, July 21, 1992; 58 FR 40591, July 29, 1993; 60 FR 65384, Dec. 19, 1995; 62 FR 8328, Feb. 24, 1997; 62 FR 48379, Sept. 15, 1997; 64 FR 7463, Feb. 12, 1999; 65 FR 78275, Dec. 14, 2000; 72 FR 59204, Oct. 19, 2007; 76 FR 15404, 15429, March 21, 2011, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

40 C. F. R. § 60.5205, 40 CFR § 60.5205

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Effective: May 20, 2011

Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 60. Standards of Performance for New Stationary Sources (Refs & Annos)
Subpart MMMM. Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units (Refs & Annos)
Model Rule--Recordkeeping and Reporting
§ 60.5235 What reports must I submit?

You must submit the reports specified in paragraphs (a) through (i) of this section. See Table 6 to this subpart for a summary of these reports.

(a) Increments of progress report. If you plan to achieve compliance more than 1 year following the effective date of state plan approval, you must submit the following reports, as applicable:

(1) A final control plan as specified in §§ 60.5085(a) and 60.5110.

(2) You must submit your notification of achievement of increments of progress no later than 10 business days after the compliance date for the increment as specified in §§ 60.5095 and 60.5100.

(3) If you fail to meet an increment of progress, you must submit a notification to the Administrator postmarked within 10 business days after the date for that increment, as specified in § 60.5105.

(4) If you plan to close your SSI unit rather than comply with the state plan, submit a closure notification as specified in § 60.5125.

(b) Initial compliance report. You must submit the following information no later than 60 days following the initial performance test.

(1) Company name, physical address, and mailing address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report.

(4) The complete test report for the initial performance test results obtained by using the test methods specified in Table 2 or 3 to this subpart.

(5) If an initial performance evaluation of a continuous monitoring system was conducted, the results of that initial performance evaluation.

(6) The values for the site-specific operating limits established pursuant to §§ 60.5170 and 60.5175 and the calculations and methods, as applicable, used to establish each operating limit.

(7) If you are using a fabric filter to comply with the emission limits, documentation that a bag leak detection system has been installed

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and is being operated, calibrated, and maintained as required by § 60.5170(b).

(8) The results of the initial air pollution control device inspection required in § 60.5195, including a description of repairs.

(9) The site-specific monitoring plan required under § 60.5200, at least 60 days before your initial performance evaluation of your continuous monitoring system.

(10) The site-specific monitoring plan for your ash handling system required under § 60.5200, at least 60 days before your initial performance test to demonstrate compliance with your fugitive ash emission limit.

(c) Annual compliance report. You must submit an annual compliance report that includes the items listed in paragraphs (c)(1) through (c)(16) of this section for the reporting period specified in paragraph (c)(3) of this section. You must submit your first annual compliance report no later than 12 months following the submission of the initial compliance report in paragraph (b) of this section. You must submit subsequent annual compliance reports no more than 12 months following the previous annual compliance report. (You may be required to submit these reports (or additional compliance information) more frequently by the title V operating permit required in § 60.5240.)

(1) Company name, physical address, and mailing address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If a performance test was conducted during the reporting period, the results of that performance test.

(i) If operating limits were established during the performance test, include the value for each operating limit and, as applicable, the method used to establish each operating limit, including calculations.

(ii) If activated carbon is used during the performance test, include the type of activated carbon used.

(5) For each pollutant and operating parameter recorded using a continuous monitoring system, the highest average value and lowest average value recorded during the reporting period, as follows:

(i) For continuous emission monitoring systems and continuous automated sampling systems, report the highest and lowest 24–hour average emission value.

(ii) For continuous parameter monitoring systems, report the following values:

(A) For all operating parameters except scrubber liquid pH, the highest and lowest 12–hour average values.

(B) For scrubber liquid pH, the highest and lowest 3–hour average values.

(6) If there are no deviations during the reporting period from any emission limit, emission standard, or operating limit that applies to you,

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a statement that there were no deviations from the emission limits, emission standard, or operating limits.

(7) Information for bag leak detection systems recorded under § 60.5230(f)(3)(iii).

(8) If a performance evaluation of a continuous monitoring system was conducted, the results of that performance evaluation. If new operating limits were established during the performance evaluation, include your calculations for establishing those operating limits.

(9) If you elect to conduct performance tests less frequently as allowed in § 60.5205(a)(3) and did not conduct a performance test during the reporting period, you must include the dates of the last two performance tests, a comparison of the emission level you achieved in the last two performance tests to the 75 percent emission limit threshold specified in § 60.5205(a)(3), and a statement as to whether there have been any process changes and whether the process change resulted in an increase in emissions.

(10) Documentation of periods when all qualified sewage sludge incineration unit operators were unavailable for more than 8 hours, but less than 2 weeks.

(11) Results of annual air pollution control device inspections recorded under § 60.5230(d) for the reporting period, including a description of repairs.

(12) If there were no periods during the reporting period when your continuous monitoring systems had a malfunction, a statement that there were no periods during which your continuous monitoring systems had a malfunction.

(13) If there were no periods during the reporting period when a continuous monitoring system was out of control, a statement that there were no periods during which your continuous monitoring systems were out of control.

(14) If there were no operator training deviations, a statement that there were no such deviations during the reporting period.

(15) If you did not make revisions to your site-specific monitoring plan during the reporting period, a statement that you did not make any revisions to your site-specific monitoring plan during the reporting period. If you made revisions to your site-specific monitoring plan during the reporting period, a copy of the revised plan.

(16) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction that occurred during the reporting period and that caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 60.11(d), including actions taken to correct a malfunction.

(d) Deviation reports.

(1) You must submit a deviation report if:

(i) Any recorded operating parameter level, based on the averaging time specified in Table 4 to this subpart, is above the maximum operating limit or below the minimum operating limit established under this subpart.

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(ii) The bag leak detection system alarm sounds for more than 5 percent of the operating time for the 6–month reporting period.

(iii) Any recorded 24–hour block average emissions level is above the emission limit, if a continuous monitoring system is used to comply with an emission limit.

(iv) There are visible emissions of combustion ash from an ash conveying system for more than 5 percent of the hourly observation period.

(v) A performance test was conducted that deviated from any emission limit in Table 2 or 3 to this subpart.

(vi) A continuous monitoring system was out of control.

(vii) You had a malfunction (e.g., continuous monitoring system malfunction) that caused or may have caused any applicable emission limit to be exceeded.

(2) The deviation report must be submitted by August 1 of that year for data collected during the first half of the calendar year (January 1 to June 30), and by February 1 of the following year for data you collected during the second half of the calendar year (July 1 to December 31).

(3) For each deviation where you are using a continuous monitoring system to comply with an associated emission limit or operating limit, report the items described in paragraphs (d)(3)(i) through (d)(3)(viii) of this section.

(i) Company name, physical address, and mailing address.

(ii) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(iii) The calendar dates and times your unit deviated from the emission limits, emission standards, or operating limits requirements.

(iv) The averaged and recorded data for those dates.

(v) Duration and cause of each deviation from the following:

(A) Emission limits, emission standards, operating limits, and your corrective actions.

(B) Bypass events and your corrective actions.

(vi) Dates, times, and causes for monitor downtime incidents.

(vii) A copy of the operating parameter monitoring data during each deviation and any test report that documents the emission levels.

(viii) If there were periods during which the continuous monitoring system malfunctioned or was out of control, you must include the following information for each deviation from an emission limit or operating limit:

(A) The date and time that each malfunction started and stopped.

(B) The date, time, and duration that each continuous monitoring system was inoperative, except for zero (low-level) and high-

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level checks.

(C) The date, time, and duration that each continuous monitoring system was out of control, including start and end dates and hours and descriptions of corrective actions taken.

(D) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction, during a period when the system as out of control, or during another period.

(E) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(F) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(G) A summary of the total duration of continuous monitoring system downtime during the reporting period, and the total duration of continuous monitoring system downtime as a percent of the total operating time of the SSI unit at which the continuous monitoring system downtime occurred during that reporting period.

(H) An identification of each parameter and pollutant that was monitored at the SSI unit.

(I) A brief description of the SSI unit.

(J) A brief description of the continuous monitoring system.

(K) The date of the latest continuous monitoring system certification or audit.

(L) A description of any changes in continuous monitoring system, processes, or controls since the last reporting period.

(4) For each deviation where you are not using a continuous monitoring system to comply with the associated emission limit or operating limit, report the following items:.

(i) Company name, physical address, and mailing address.

(ii) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(iii) The total operating time of each affected source during the reporting period.

(iv) The calendar dates and times your unit deviated from the emission limits, emission standards, or operating limits requirements.

(v) The averaged and recorded data for those dates.

(vi) Duration and cause of each deviation from the following:

(A) Emission limits, emission standards, operating limits, and your corrective actions.

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(B) Bypass events and your corrective actions.

(vii) A copy of any performance test report that showed a deviation from the emission limits or standards.

(viii) A brief description of any malfunction reported in paragraph (d)(1)(vii) of this section, including a description of actions taken during the malfunction to minimize emissions in accordance with § 60.11(d) and to correct the malfunction.

(e) Qualified operator deviation.

(1) If all qualified operators are not accessible for 2 weeks or more, you must take the two actions in paragraphs (e)(1)(i) and (e)(1)(ii) of this section.

(i) Submit a notification of the deviation within 10 days that includes the three items in paragraphs (e)(1)(i)(A) through (e)(1)(i)(C) of this section.

(A) A statement of what caused the deviation.

(B) A description of actions taken to ensure that a qualified operator is accessible.

(C) The date when you anticipate that a qualified operator will be available.

(ii) Submit a status report to the Administrator every 4 weeks that includes the three items in paragraphs (e)(1)(ii)(A) through (e)(1)(ii)(C) of this section.

(A) A description of actions taken to ensure that a qualified operator is accessible.

(B) The date when you anticipate that a qualified operator will be accessible.

(C) Request for approval from the Administrator to continue operation of the SSI unit.

(2) If your unit was shut down by the Administrator, under the provisions of § 60.5155(b)(2)(i), due to a failure to provide an accessible qualified operator, you must notify the Administrator within five days of meeting § 60.5155(b)(2)(ii) that you are resuming operation.

(f) Notification of a force majeure. If a force majeure is about to occur, occurs, or has occurred for which you intend to assert a claim of force majeure:

(1) You must notify the Administrator, in writing as soon as practicable following the date you first knew, or through due diligence, should have known that the event may cause or caused a delay in conducting a performance test beyond the regulatory deadline, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification must occur as soon as practicable.

(2) You must provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in conducting the performance test beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which you propose to conduct the performance test.

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(g) Other notifications and reports required. You must submit other notifications as provided by § 60.7 and as follows:

(1) You must notify the Administrator 1 month before starting or stopping use of a continuous monitoring system for determining compliance with any emission limit.

(2) You must notify the Administrator at least 30 days prior to any performance test conducted to comply with the provisions of this subpart, to afford the Administrator the opportunity to have an observer present.

(3) As specified in § 60.5220(a)(8), you must notify the Administrator at least 7 days prior to the date of a rescheduled performance test for which notification was previously made in paragraph (g)(2) of this section.

(h) Report submission form.

(1) Submit initial, annual, and deviation reports electronically or in paper format, postmarked on or before the submittal due dates.

(2) As of January 1, 2012 and within 60 days after the date of completing each performance test, as defined in § 63.2, conducted to demonstrate compliance with this subpart, you must submit relative accuracy test audit (i.e., reference method) data and performance test (i.e., compliance test) data, except opacity data, electronically to EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) (see http://www.epa.gov/ttn/chief/ert/ert_tool.html/) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database.

(i) Changing report dates. If the Administrator agrees, you may change the semiannual or annual reporting dates. See § 60.19(c) for procedures to seek approval to change your reporting date.

SOURCE: 36 FR 24877, Dec. 23, 1971; 50 FR 36834, Sept. 9, 1985; 52 FR 37874, Oct. 9, 1987; 53 FR 2675, Jan. 29, 1988; 57 FR 32338, July 21, 1992; 58 FR 40591, July 29, 1993; 60 FR 65384, Dec. 19, 1995; 62 FR 8328, Feb. 24, 1997; 62 FR 48379, Sept. 15, 1997; 64 FR 7463, Feb. 12, 1999; 65 FR 78275, Dec. 14, 2000; 72 FR 59204, Oct. 19, 2007; 76 FR 15404, 15429, March 21, 2011, unless otherwise noted.

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Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 60. Standards of Performance for New Stationary Sources (Refs & Annos)
Subpart MMMM. Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units (Refs & Annos)
Model Rule--Performance Testing, Monitoring, and Calibration Requirements
§ 60.5220 What are the performance testing, monitoring, and calibration requirements for compliance with the emission limits and standards?

You must meet, as applicable, the performance testing requirements specified in paragraph (a) of this section, the monitoring requirements specified in paragraph (b) of this section, the air pollution control device inspections requirements specified in paragraph (c) of this section, and the bypass stack provisions specified in paragraph (d) of this section.

(a) Performance testing requirements.

(1) All performance tests must consist of a minimum of three test runs conducted under conditions representative of normal operations, as specified in § 60.8(c). Emissions in excess of the emission limits or standards during periods of startup, shutdown, and malfunction are considered deviations from the applicable emission limits or standards.

(2) You must document that the dry sludge burned during the performance test is representative of the sludge burned under normal operating conditions by:

(i) Maintaining a log of the quantity of sewage sludge burned during the performance test by continuously monitoring and recording the average hourly rate that sewage sludge is fed to the incinerator.

(ii) Maintaining a log of the moisture content of the sewage sludge burned during the performance test by taking grab samples of the sewage sludge fed to the incinerator for each 8 hour period that testing is conducted.

(3) All performance tests must be conducted using the test methods, minimum sampling volume, observation period, and averaging method specified in Table 2 or 3 to this subpart.

(4) Method 1 at 40 CFR part 60, appendix A must be used to select the sampling location and number of traverse points.

(5) Method 3A or 3B at 40 CFR part 60, appendix A–2 must be used for gas composition analysis, including measurement of oxygen concentration. Method 3A or 3B at 40 CFR part 60, appendix A–2 must be used simultaneously with each method.

(6) All pollutant concentrations must be adjusted to 7 percent oxygen using Equation 1 of this section:

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$$C_{adj} = C_{meas}(20.9-7)/(20.9-\%O_2) \quad \text{(Eq. 1)}$$

Where:

C_{adj} = Pollutant concentration adjusted to 7 percent oxygen.

C_{meas} = Pollutant concentration measured on a dry basis.

(20.9 - 7) = 20.9 percent oxygen - 7 percent oxygen (defined oxygen correction basis).

20.9 = Oxygen concentration in air, percent.

$\%O_2$ = Oxygen concentration measured on a dry basis, percent.

(7) Performance tests must be conducted and data reduced in accordance with the test methods and procedures contained in this subpart unless the Administrator does one of the following.

(i) Specifies or approves, in specific cases, the use of a method with minor changes in methodology.

(ii) Approves the use of an equivalent method.

(iii) Approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance.

(iv) Waives the requirement for performance tests because you have demonstrated by other means to the Administrator's satisfaction that the affected SSI unit is in compliance with the standard.

(v) Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph is construed to abrogate the Administrator's authority to require testing under section 114 of the Clean Air Act.

(8) You must provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, you must notify the Administrator as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator by mutual agreement.

(9) You must provide, or cause to be provided, performance testing facilities as follows:

(i) Sampling ports adequate for the test methods applicable to the SSI unit, as follows:

(A) Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures.

(B) Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods

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and procedures.

(ii) Safe sampling platform(s).

(iii) Safe access to sampling platform(s).

(iv) Utilities for sampling and testing equipment.

(10) Unless otherwise specified in this subpart, each performance test must consist of three separate runs using the applicable test method. Each run must be conducted for the time and under the conditions specified in the applicable standard. Compliance with each emission limit must be determined by calculating the arithmetic mean of the three runs. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond your control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

(11) During each test run specified in paragraph (a)(1) of this section, you must operate your sewage sludge incinerator at a minimum of 85 percent of your maximum permitted capacity.

(b) Continuous monitor requirements. You must meet the following requirements, as applicable, when using a continuous monitoring system to demonstrate compliance with the emission limits in Table 2 or 3 to this subpart. The option to use a continuous emissions monitoring system for hydrogen chloride, dioxins/furans, cadmium, or lead takes effect on the date a final performance specification applicable to hydrogen chloride, dioxins/furans, cadmium, or lead is published in the Federal Register. If you elect to use a continuous emissions monitoring system instead of conducting annual performance testing, you must meet the requirements of paragraphs (b)(1) through (b)(6) of this section. If you elect to use a continuous automated sampling system instead of conducting annual performance testing, you must meet the requirements of paragraph (b)(7) of this section. The option to use a continuous automated sampling system for dioxins/furans takes effect on the date a final performance specification for such a continuous automated sampling system is published in the Federal Register.

(1) You must notify the Administrator 1 month before starting use of the continuous emissions monitoring system.

(2) You must notify the Administrator 1 month before stopping use of the continuous emissions monitoring system, in which case you must also conduct a performance test within prior to ceasing operation of the system.

(3) You must install, operate, calibrate, and maintain an instrument for continuously measuring and recording the emissions to the atmosphere in accordance with the following:

(i) Section 60.13 of subpart A of this part.

(ii) The following performance specifications of appendix B of this part, as applicable:

(A) For particulate matter, Performance Specification 11 of appendix B of this part.

(B) For hydrogen chloride, Performance Specification 15 of appendix B of this part.

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(C) For carbon monoxide, Performance Specification 4B of appendix B of this part with spans appropriate to the applicable emission limit.

(D) [Reserved]

(E) For mercury, Performance Specification 12A of appendix B of this part.

(F) For nitrogen oxides, Performance Specification 2 of appendix B of this part.

(G) For sulfur dioxide, Performance Specification 2 of appendix B of this part.

(iii) For continuous emissions monitoring systems, the quality assurance procedures (e.g., quarterly accuracy determinations and daily calibration drift tests) of appendix F of this part specified in paragraphs (b)(3)(iii)(A) through (b)(3)(iii)(G) of this section. For each pollutant, the span value of the continuous emissions monitoring system is two times the applicable emission limit, expressed as a concentration.

(A) For particulate matter, Procedure 2 in appendix F of this part.

(B) For hydrogen chloride, Procedure 1 in appendix F of this part except that the Relative Accuracy Test Audit requirements of Procedure 1 shall be replaced with the validation requirements and criteria of sections 11.1.1 and 12.0 of Performance Specification 15 of appendix B of this part.

(C) For carbon monoxide, Procedure 1 in appendix F of this part.

(D) [Reserved]

(E) For mercury, Procedures 5 in appendix F of this part.

(F) For nitrogen oxides, Procedure 1 in appendix F of this part.

(G) For sulfur dioxide, Procedure 1 in appendix F of this part.

(iv) If your monitoring system has a malfunction or out-of-control period, you must complete repairs and resume operation of your monitoring system as expeditiously as possible.

(4) During each relative accuracy test run of the continuous emissions monitoring system using the performance specifications in paragraph (b)(3)(ii) of this section, emission data for each regulated pollutant and oxygen (or carbon dioxide as established in (b)(5) of this section) must be collected concurrently (or within a 30- to 60–minute period) by both the continuous emissions monitoring systems and the test methods specified in paragraph (b)(4)(i) through (b)(4)(viii) of this section. Relative accuracy testing must be at representative operating conditions while the SSI unit is charging sewage sludge.

(i) For particulate matter, Method 5 at 40 CFR part 60, appendix A–3 or Method 26A or 29 at 40 CFR part 60, appendix A–8 shall be used.

(ii) For hydrogen chloride, Method 26 or 26A at 40 CFR part 60, appendix A–8, shall be used, as specified in Tables 1 and 2 to this subpart.

(iii) For carbon monoxide, Method 10, 10A, or

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10B at 40 CFR part 60, appendix A–4, shall be used.

(iv) For dioxins/furans, Method 23 at 40 CFR part 60, appendix A–7, shall be used.

(v) For mercury, cadmium, and lead, Method 29 at 40 CFR part 60, appendix A–8, shall be used. Alternatively for mercury, either Method 30B at 40 CFR part 60, appendix A–8 or ASTM D6784–02 (Reapproved 2008) (incorporated by reference, see § 60.17), may be used.

(vi) For nitrogen oxides, Method 7 or 7E at 40 CFR part 60, appendix A–4, shall be used.

(vii) For sulfur dioxide, Method 6 or 6C at 40 CFR part 60, appendix A–4, or as an alternative ANSI/ASME PTC 19.10–1981 (incorporated by reference, see § 60.17) must be used. For sources that have actual inlet emissions less than 100 parts per million dry volume, the relative accuracy criterion for the inlet of the sulfur dioxide continuous emissions monitoring system should be no greater than 20 percent of the mean value of the method test data in terms of the units of the emission standard, or 5 parts per million dry volume absolute value of the mean difference between the method and the continuous emissions monitoring system, whichever is greater.

(viii) For oxygen (or carbon dioxide as established in (b)(5) of this section), Method 3A or 3B at 40 CFR part 60, appendix A–2, or as an alternative ANSI/ASME PTC 19.10–1981 (incorporated by reference, see § 60.17), as applicable, must be used.

(5) You may request that compliance with the emission limits be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. If carbon dioxide is selected for use in diluent corrections, the relationship between oxygen and carbon dioxide levels must be established during the initial performance test according to the procedures and methods specified in paragraphs (b)(5)(i) through (b)(5)(iv) of this section. This relationship may be re-established during subsequent performance tests.

(i) The fuel factor equation in Method 3B at 40 CFR part 60, appendix A–2 must be used to determine the relationship between oxygen and carbon dioxide at a sampling location. Method 3A or 3B at 50 CFR part 60, appendix A–2, or as an alternative ANSI/ASME PTC 19.10–1981 (incorporated by reference, see § 60.17), as applicable, must be used to determine the oxygen concentration at the same location as the carbon dioxide monitor.

(ii) Samples must be taken for at least 30 minutes in each hour.

(iii) Each sample must represent a 1–hour average.

(iv) A minimum of three runs must be performed.

(6) You must operate the continuous monitoring system and collect data with the continuous monitoring system as follows:

(i) You must collect data using the continuous monitoring system at all times the affected SSI unit is operating and at the intervals specified in paragraph (b)(6)(ii) of this section, except for periods of monitoring system malfunctions that occur during periods specified in § 60.5200(a)(7)(i), repairs associated with monit-

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oring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments). Any such periods that you do not collect data using the continuous monitoring system constitute a deviation from the monitoring requirements and must be reported in a deviation report.

(ii) You must collect continuous emissions monitoring system data in accordance with § 60.13(e)(2).

(iii) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities must not be included in calculations used to report emissions or operating levels. Any such periods must be reported in a deviation report.

(iv) Any data collected during periods when the monitoring system is out of control as specified in § 60.4880(a)(7)(i), repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or control activities conducted during out-of-control periods must not be included in calculations used to report emissions or operating levels. Any such periods that do not coincide with a monitoring system malfunction as defined in § 60.5250, constitute a deviation from the monitoring requirements and must be reported in a deviation report.

(v) You must use all the data collected during all periods except those periods specified in paragraphs (b)(6)(iii) and (b)(6)(iv) of this section in assessing the operation of the control device and associated control system.

(7) If you elect to use a continuous automated sampling system instead of conducting annual performance testing, you must:

(i) Install, calibrate, maintain, and operate a continuous automated sampling system according to the site-specific monitoring plan developed in § 60.58b(p)(1) through (p)(6), (p)(9), (p)(10), and (q).

(ii) Collect data according to § 60.58b(p)(5) and paragraph (b)(6) of this section.

(c) Air pollution control device inspections. You must conduct air pollution control device inspections that include, at a minimum, the following:

(1) Inspect air pollution control device(s) for proper operation.

(2) Generally observe that the equipment is maintained in good operating condition.

(3) Develop a site-specific monitoring plan according to the requirements in § 60.5200. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under § 60.13(i).

(d) Bypass stack. Use of the bypass stack at any time that sewage sludge is being charged to the SSI unit is an emissions standards deviation for all pollutants listed in Table 2 or 3 to this subpart. The use of the bypass stack during a performance test invalidates the performance test.

SOURCE: 36 FR 24877, Dec. 23, 1971; 50 FR 36834, Sept. 9, 1985; 52 FR 37874, Oct. 9, 1987; 53 FR 2675, Jan. 29, 1988; 57 FR 32338, July 21, 1992; 58 FR 40591, July 29, 1993; 60 FR 65384, Dec. 19, 1995; 62 FR 8328, Feb. 24, 1997; 62 FR

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48379, Sept. 15, 1997; 64 FR 7463, Feb. 12, 1999; 65 FR 78275, Dec. 14, 2000; 72 FR 59204, Oct. 19, 2007; 76 FR 15404, 15429, March 21, 2011, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

40 C. F. R. § 60.5220, 40 CFR § 60.5220

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C

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Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 60. Standards of Performance for New Stationary Sources (Refs & Annos)
Subpart MMMM. Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units (Refs & Annos)
Model Rule--Continuous Compliance Requirements
§ 60.5210 How do I demonstrate continuous compliance with my operating limits?

You must continuously monitor your operating parameters as specified in paragraph (a) of this section and meet the requirements of paragraphs (b) and (c) of this section, according to the monitoring and calibration requirements in § 60.5225. You must confirm and re-establish your operating limits as specified in paragraph (d) of this section.

(a) You must continuously monitor the operating parameters specified in paragraphs (a)(1) and (a)(2) of this section using the continuous monitoring equipment and according to the procedures specified in § 60.5225 or established in § 60.5175. To determine compliance, you must use the data averaging period specified in Table 4 to this subpart (except for alarm time of the baghouse leak detection system) unless a different averaging period is established under § 60.5175.

(1) You must demonstrate that the SSI unit meets the operating limits established according to §§ 60.5175 and 60.5190 and paragraph (d) of this section for each applicable operating parameter.

(2) You must demonstrate that the SSI unit meets the operating limit for bag leak detection systems as follows:

(i) For a bag leak detection system, you must calculate the alarm time as follows:

(A) If inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted.

(B) If corrective action is required, each alarm time shall be counted as a minimum of 1 hour.

(C) If you take longer than 1 hour to initiate corrective action, each alarm time (i.e., time that the alarm sounds) is counted as the actual amount of time taken by you to initiate corrective action.

(ii) Your maximum alarm time is equal to 5 percent of the operating time during a 6–month period, as specified in § 60.5170(c).

(b) Operation above the established maximum, below the established minimum, or outside the allowable range of the operating limits specified in paragraph (a) of this section constitutes a deviation from your operating limits established under this subpart, except during performance tests conducted to determine compliance with the emission and operating limits or to establish new operating limits. You must submit the deviation report specified in § 60.5235(d) for each instance that you did not meet

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one of your operating limits established under this subpart.

(c) You must submit the annual compliance report specified in § 60.5235(c) to demonstrate continuous compliance.

(d) You must confirm your operating limits according to paragraph (d)(1) of this section or re-establish operating limits according to paragraph (d)(2) of this section. Your operating limits must be established so as to assure ongoing compliance with the emission limits. These requirements also apply to your operating requirements in your fugitive emissions monitoring plan specified in § 60.5170(d).

(1) Your operating limits must be based on operating data recorded during any performance test required in § 60.5205(a) or any performance evaluation required in § 60.5205(b)(4).

(2) You may conduct a repeat performance test at any time to establish new values for the operating limits to apply from that point forward.

SOURCE: 36 FR 24877, Dec. 23, 1971; 50 FR 36834, Sept. 9, 1985; 52 FR 37874, Oct. 9, 1987; 53 FR 2675, Jan. 29, 1988; 57 FR 32338, July 21, 1992; 58 FR 40591, July 29, 1993; 60 FR 65384, Dec. 19, 1995; 62 FR 8328, Feb. 24, 1997; 62 FR 48379, Sept. 15, 1997; 64 FR 7463, Feb. 12, 1999; 65 FR 78275, Dec. 14, 2000; 72 FR 59204, Oct. 19, 2007; 76 FR 15404, 15429, March 21, 2011, unless otherwise noted.

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Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 60. Standards of Performance for New Stationary Sources (Refs & Annos)
Subpart A. General Provisions
§ 60.5 Determination of construction or modification.

(a) When requested to do so by an owner or operator, the Administrator will make a determination of whether action taken or intended to be taken by such owner or operator constitutes construction (including reconstruction) or modification or the commencement thereof within the meaning of this part.

(b) The Administrator will respond to any request for a determination under paragraph (a) of this section within 30 days of receipt of such request.

[40 FR 58418, Dec. 16, 1975]

SOURCE: 36 FR 24877, Dec. 23, 1971; 50 FR 36834, Sept. 9, 1985; 52 FR 37874, Oct. 9, 1987; 53 FR 2675, Jan. 29, 1988; 57 FR 32338, July 21, 1992; 58 FR 40591, July 29, 1993; 60 FR 65384, Dec. 19, 1995; 62 FR 8328, Feb. 24, 1997; 62 FR 48379, Sept. 15, 1997; 64 FR 7463, Feb. 12, 1999; 65 FR 78275, Dec. 14, 2000; 72 FR 59204, Oct. 19, 2007, unless otherwise noted.

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Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 61. National Emission Standards for Hazardous Air Pollutants (Refs & Annos)
Subpart C. National Emission Standard for Beryllium
§ 61.30 Applicability.

The provisions of this subpart are applicable to the following stationary sources:

(a) Extraction plants, ceramic plants, foundries, incinerators, and propellant plants which process beryllium ore, beryllium, beryllium oxide, beryllium alloys, or beryllium-containing waste.

(b) Machine shops which process beryllium, beryllium oxides, or any alloy when such alloy contains more than 5 percent beryllium by weight.

[65 FR 62151, Oct. 17, 2000]

SOURCE: 38 FR 8826, April 6, 1973; 50 FR 46290 , Nov. 7, 1985; 55 FR 78, Jan. 2, 1990; 59 FR 36301, July 15, 1994; 62 FR 8328, Feb. 24, 1997; 65 FR 78280, Dec. 14, 2000, unless otherwise noted.

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Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 61. National Emission Standards for Hazardous Air Pollutants (Refs & Annos)
Subpart C. National Emission Standard for Beryllium
§ 61.31 Definitions.

Terms used in this subpart are defined in the act, in subpart A of this part, or in this section as follows:

(a) Beryllium means the element beryllium. Where weights or concentrations are specified, such weights or concentrations apply to beryllium only, excluding the weight or concentration of any associated elements.

(b) Extraction plant means a facility chemically processing beryllium ore to beryllium metal, alloy, or oxide, or performing any of the intermediate steps in these processes.

(c) Beryllium ore means any naturally occurring material mined or gathered for its beryllium content.

(d) Machine shop means a facility performing cutting, grinding, turning, honing, milling, deburring, lapping, electrochemical machining, etching, or other similar operations.

(e) Ceramic plant means a manufacturing plant producing ceramic items.

(f) Foundry means a facility engaged in the melting or casting of beryllium metal or alloy.

(g) Beryllium-containing waste means material contaminated with beryllium and/or beryllium compounds used or generated during any process or operation performed by a source subject to this subpart.

(h) Incinerator means any furnace used in the process of burning waste for the primary purpose of reducing the volume of the waste by removing combustible matter.

(i) Propellant means a fuel and oxidizer physically or chemically combined which undergoes combustion to provide rocket propulsion.

(j) Beryllium alloy means any metal to which beryllium has been added in order to increase its beryllium content and which contains more than 0.1 percent beryllium by weight.

(k) Propellant plant means any facility engaged in the mixing, casting, or machining of propellant.

SOURCE: 38 FR 8826, April 6, 1973; 50 FR 46290, Nov. 7, 1985; 55 FR 78, Jan. 2, 1990; 59 FR 36301, July 15, 1994; 62 FR 8328, Feb. 24, 1997; 65 FR 78280, Dec. 14, 2000, unless otherwise noted.

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Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 61. National Emission Standards for Hazardous Air Pollutants (Refs & Annos)
Subpart C. National Emission Standard for Beryllium
§ 61.32 Emission standard.

(a) Emissions to the atmosphere from stationary sources subject to the provisions of this subpart shall not exceed 10 grams (0.022 lb) of beryllium over a 24-hour period, except as provided in paragraph (b) of this section.

(b) Rather than meet the requirement of paragraph (a) of this section, an owner or operator may request approval from the Administrator to meet an ambient concentration limit on beryllium in the vicinity of the stationary source of 0.01 <<mu>>g/m^3 (4.37x10^{-6} gr/ft^3), averaged over a 30-day period.

(1) Approval of such requests may be granted by the Administrator provided that:

(i) At least 3 years of data is available which in the judgment of the Administrator demonstrates that the future ambient concentrations of beryllium in the vicinity of the stationary source will not exceed 0.01 <<mu>>g/m^3 (4.37x10^{-6} gr/ft^3), averaged over a 30-day period. Such 3-year period shall be the 3 years ending 30 days before the effective date of this standard.

(ii) The owner or operator requests such approval in writing within 30 days after the effective date of this standard.

(iii) The owner or operator submits a report to the Administrator within 45 days after the effective date of this standard which report includes the following information:

(a) Description of sampling method including the method and frequency of calibration.

(b) Method of sample analysis.

(c) Averaging technique for determining 30-day average concentrations.

(d) Number, identity, and location (address, coordinates, or distance and heading from plant) of sampling sites.

(e) Ground elevations and height above ground of sampling inlets.

(f) Plant and sampling area plots showing emission points and sampling sites. Topographic features significantly affecting dispersion including plant building heights and locations shall be included.

(g) Information necessary for estimating dispersion including stack height, inside diameter, exit gas temperature, exit velocity or flow rate, and beryllium concentration.

(h) A description of data and procedures

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(methods or models) used to design the air sampling network (i.e., number and location of sampling sites).

(i) Air sampling data indicating beryllium concentrations in the vicinity of the stationary source for the 3-year period specified in paragraph (b)(1) of this section. This data shall be presented chronologically and include the beryllium concentration and location of each individual sample taken by the network and the corresponding 30-day average beryllium concentrations.

(2) Within 60 days after receiving such report, the Administrator will notify the owner or operator in writing whether approval is granted or denied. Prior to denying approval to comply with the provisions of paragraph (b) of this section, the Administrator will consult with representatives of the statutory source for which the demonstration report was submitted.

(c) The burning of beryllium and/or beryllium-containing waste, except propellants, is prohibited except in incinerators, emissions from which must comply with the standard.

[65 FR 62151, Oct. 17, 2000]

SOURCE: 38 FR 8826, April 6, 1973; 50 FR 46290 , Nov. 7, 1985; 55 FR 78, Jan. 2, 1990; 59 FR 36301, July 15, 1994; 62 FR 8328, Feb. 24, 1997; 65 FR 78280, Dec. 14, 2000, unless otherwise noted.

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Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 61. National Emission Standards for Hazardous Air Pollutants (Refs & Annos)
Subpart C. National Emission Standard for Beryllium
§ 61.33 Stack sampling.

(a) Unless a waiver of emission testing is obtained under § 61.13, each owner or operator required to comply with § 61.32(a) shall test emissions from the source according to Method 104 of appendix B to this part. Method 103 of appendix B to this part is approved by the Administrator as an alternative method for sources subject to § 61.32(a). The emission test shall be performed--

(1) Within 90 days of the effective date in the case of an existing source or a new source which has an initial startup date preceding the effective date; or

(2) Within 90 days of startup in the case of a new source which did not have an initial startup date preceding the effective date.

(b) The Administrator shall be notified at least 30 days prior to an emission test so that he may at his option observe the test.

(c) Samples shall be taken over such a period or periods as are necessary to accurately determine the maximum emissions which will occur in any 24-hour period. Where emissions depend upon the relative frequency of operation of different types of processes, operating hours, operating capacities, or other factors, the calculation of maximum 24-hour-period emissions will be based on that combination of factors which is likely to occur during the subject period and which result in the maximum emissions. No changes in the operation shall be made, which would potentially increase emissions above that determined by the most recent source test, until a new emission level has been estimated by calculation and the results reported to the Administrator.

(d) All samples shall be analyzed and beryllium emissions shall be determined within 30 days after the source test. All determinations shall be reported to the Administrator by a registered letter dispatched before the close of the next business day following such determination.

(e) Records of emission test results and other data needed to determine total emissions shall be retained at the source and made available, for inspection by the Administrator, for a minimum of 2 years.

[38 FR 8826, April 6, 1973, as amended at 43 FR 8800, March 3, 1978; 50 FR 46294, Nov. 7, 1985]

SOURCE: 38 FR 8826, April 6, 1973; 50 FR 46290 , Nov. 7, 1985; 55 FR 78, Jan. 2, 1990; 59 FR 36301, July 15, 1994; 62 FR 8328, Feb. 24, 1997; 65 FR 78280, Dec. 14, 2000, unless otherwise noted.

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Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 61. National Emission Standards for Hazardous Air Pollutants (Refs & Annos)
Subpart C. National Emission Standard for Beryllium
§ 61.34 Air sampling.

(a) Stationary sources subject to § 61.32(b) shall locate air sampling sites in accordance with a plan approved by the Administrator. Such sites shall be located in such a manner as is calculated to detect maximum concentrations of beryllium in the ambient air.

(b) All monitoring sites shall be operated continuously except for a reasonable time allowance for instrument maintenance and calibration, for changing filters, or for replacement of equipment needing major repair.

(c) Filters shall be analyzed and concentrations calculated within 30 days after filters are collected. Records of concentrations at all sampling sites and other data needed to determine such concentrations shall be retained at the source and made available, for inspection by the Administrator, for a minimum of 2 years.

(d) Concentrations measured at all sampling sites shall be reported to the Administrator every 30 days by a registered letter.

(e) The Administrator may at any time require changes in, or expansion of, the sampling network.

[38 FR 8826, Apr. 6, 1973, as amended at 43 FR 8800, Mar. 3, 1978]

SOURCE: 38 FR 8826, April 6, 1973; 50 FR 46290 , Nov. 7, 1985; 55 FR 78, Jan. 2, 1990; 59 FR 36301, July 15, 1994; 62 FR 8328, Feb. 24, 1997; 65 FR 78280, Dec. 14, 2000, unless otherwise noted.

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C

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Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 61. National Emission Standards for Hazardous Air Pollutants (Refs & Annos)
Subpart C. National Emission Standard for Beryllium
§ 61.35 [Reserved]

[58 FR 34375, June 25, 1993]

SOURCE: 38 FR 8826, April 6, 1973; 50 FR 46290 , Nov. 7, 1985; 55 FR 78, Jan. 2, 1990; 59 FR 36301, July 15, 1994; 62 FR 8328, Feb. 24, 1997; 65 FR 78280, Dec. 14, 2000, unless otherwise noted.

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Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 61. National Emission Standards for Hazardous Air Pollutants (Refs & Annos)
Subpart E. National Emission Standard for Mercury
§ 61.50 Applicability.

The provisions of this subpart are applicable to those stationary sources which process mercury ore to recover mercury, use mercury chlor-alkali cells to produce chlorine gas and alkali metal hydroxide, and incinerate or dry wastewater treatment plant sludge.

[40 FR 48302, Oct. 14, 1975]

SOURCE: 38 FR 8826, April 6, 1973; 50 FR 46290, Nov. 7, 1985; 55 FR 78, Jan. 2, 1990; 59 FR 36301, July 15, 1994; 62 FR 8328, Feb. 24, 1997; 65 FR 78280, Dec. 14, 2000, unless otherwise noted.

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Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 61. National Emission Standards for Hazardous Air Pollutants (Refs & Annos)
Subpart E. National Emission Standard for Mercury
§ 61.51 Definitions.

Terms used in this subpart are defined in the act, in subpart A of this part, or in this section as follows:

(a) Mercury means the element mercury, excluding any associated elements, and includes mercury in particulates, vapors, aerosols, and compounds.

(b) Mercury ore means a mineral mined specifically for its mercury content.

(c) Mercury ore processing facility means a facility processing mercury ore to obtain mercury.

(d) Condenser stack gases mean the gaseous effluent evolved from the stack of processes utilizing heat to extract mercury metal from mercury ore.

(e) Mercury chlor-alkali cell means a device which is basically composed of an electrolyzer section and a denuder (decomposer) section and utilizes mercury to produce chlorine gas, hydrogen gas, and alkali metal hydroxide.

(f) Mercury chlor-alkali electrolyzer means an electrolytic device which is part of a mercury chlor-alkali cell and utilizes a flowing mercury cathode to produce chlorine gas and alkali metal amalgam.

(g) Denuder means a horizontal or vertical container which is part of a mercury chlor-alkali cell and in which water and alkali metal amalgam are converted to alkali metal hydroxide, mercury, and hydrogen gas in a short-circuited, electrolytic reaction.

(h) Hydrogen gas stream means a hydrogen stream formed in the chlor-alkali cell denuder.

(i) End box means a container(s) located on one or both ends of a mercury chlor-alkali electrolyzer which serves as a connection between the electrolyzer and denuder for rich and stripped amalgam.

(j) End box ventilation system means a ventilation system which collects mercury emissions from the end-boxes, the mercury pump sumps, and their water collection systems.

(k) Cell room means a structure(s) housing one or more mercury electrolytic chlor-alkali cells.

(l) Sludge means sludge produced by a treatment plant that processes municipal or industrial waste waters.

(m) Sludge dryer means a device used to reduce the moisture content of sludge by heating to temperatures above 65 °C (ca. 150 °F) directly with combustion gases.

[38 FR 8826, April 6, 1973, as amended at 40 FR 48302, Oct. 14, 1975]

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SOURCE: 38 FR 8826, April 6, 1973; 50 FR 46290 , Nov. 7, 1985; 55 FR 78, Jan. 2, 1990; 59 FR 36301, July 15, 1994; 62 FR 8328, Feb. 24, 1997; 65 FR 78280, Dec. 14, 2000, unless otherwise noted.

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Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 61. National Emission Standards for Hazardous Air Pollutants (Refs & Annos)
Subpart E. National Emission Standard for Mercury
§ 61.52 Emission standard.

(a) Emissions to the atmosphere from mercury ore processing facilities and mercury cell chlor-alkali plants shall not exceed 2.3 kg (5.1 lb) of mercury per 24-hour period.

(b) Emissions to the atmosphere from sludge incineration plants, sludge drying plants, or a combination of these that process wastewater treatment plant sludges shall not exceed 3.2 kg (7.1 lb) of mercury per 24-hour period.

[40 FR 48302, Oct. 14, 1975; 65 FR 62151, Oct. 17, 2000]

SOURCE: 38 FR 8826, April 6, 1973; 50 FR 46290, Nov. 7, 1985; 55 FR 78, Jan. 2, 1990; 59 FR 36301, July 15, 1994; 62 FR 8328, Feb. 24, 1997; 65 FR 78280, Dec. 14, 2000, unless otherwise noted.

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Current through October 11, 2012; 77 FR 62132

US EPA ARCHIVE DOCUMENT

Effective:[See Text Amendments]

Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 61. National Emission Standards for Hazardous Air Pollutants (Refs & Annos)
Subpart E. National Emission Standard for Mercury
§ 61.53 Stack sampling.

(a) Mercury ore processing facility.

(1) Unless a waiver of emission testing is obtained under § 61.13, each owner or operator processing mercury ore shall test emissions from the source according to Method 101 of appendix B to this part. The emission test shall be performed--

(i) Within 90 days of the effective date in the case of an existing source or a new source which has an initial start-up date preceding the effective date; or

(ii) Within 90 days of startup in the case of a new source which did not have an initial startup date preceding the effective date.

(2) The Administrator shall be notified at least 30 days prior to an emission test, so that he may at his option observe the test.

(3) Samples shall be taken over such a period or periods as are necessary to accurately determine the maximum emissions which will occur in a 24-hour period. No changes in the operation shall be made, which would potentially increase emissions above that determined by the most recent source test, until the new emission level has been estimated by calculation and the results reported to the Administrator.

(4) All samples shall be analyzed and mercury emissions shall be determined within 30 days after the stack test. Each determination shall be reported to the Administrator by a registered letter dispatched within 15 calendar days following the date such determination is completed.

(5) Records of emission test results and other data needed to determine total emissions shall be retained at the source and made available, for inspection by the Administrator, for a minimum of 2 years.

(b) Mercury chlor-alkali plant--hydrogen and end-box ventilation gas streams.

(1) Unless a waiver of emission testing is obtained under § 61.13, each owner or operator employing mercury chlor-alkali cell(s) shall test emissions from hydrogen streams according to Method 102 and from end-box ventilation gas streams according to Method 101 of appendix B to this part. The emission test shall be performed--

(i) Within 90 days of the effective date in the case of an existing source or a new source which has an initial startup date preceding the effective date; or

(ii) Within 90 days of startup in the case of a

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new source which did not have an initial startup date preceding the effective date.

(2) The Administrator shall be notified at least 30 days prior to an emission test, so that he may at his option observe the test.

(3) Samples shall be taken over such a period or periods as are necessary to accurately determine the maximum emissions which will occur in a 24-hour period. No changes in the operation shall be made, which would potentially increase emissions above that determined by the most recent source test, until the new emission has been estimated by calculation and the results reported to the Administrator.

(4) All samples shall be analyzed and mercury emissions shall be determined within 30 days after the stack test. Each determination shall be reported to the Administrator by a registered letter dispatched within 15 calendar days following the date such determination is completed.

(5) Records of emission test results and other data needed to determine total emissions shall be retained at the source and made available, for inspection by the Administrator, for a minimum of 2 years.

(c) Mercury chlor-alkali plants--cell room ventilation system.

(1) Stationary sources using mercury chlor-alkali cells may test cell room emissions in accordance with paragraph (c)(2) of this section or demonstrate compliance with paragraph (c)(4) of this section and assume ventilation emissions of 1.3 kg/day (2.9 lb/day) of mercury.

(2) Unless a waiver of emission testing is obtained under § 61.13, each owner or operator shall pass all cell room air in force gas streams through stacks suitable for testing and shall test emissions from the source according to Method 101 in appendix B to this part. The emission test shall be performed--

(i) Within 90 days of the effective date in the case of an existing source or a new source which has an initial startup date preceding the effective date; or

(ii) Within 90 days of startup in the case of a new source which did not have an initial startup date preceding the effective date.

(3) The Administrator shall be notified at least 30 days prior to an emission test, so that he may at his option observe the test.

(4) An owner or operator may carry out approved design, maintenance, and housekeeping practices. A list of approved practices is provided in appendix A of "Review of National Emission Standards for Mercury," EPA-450/3-84-014a, December 1984. Copies are available from EPA's Central Docket Section, Docket item number A-84-41, III-B-1.

(d) Sludge incineration and drying plants.

(1) Unless a waiver of emission testing is obtained under § 61.13, each owner or operator of a source subject to the standard in § 61.52(b) shall test emissions from that source. Such tests shall be conducted in accordance with the procedures set forth either in paragraph (d) of this section or in § 61.54.

(2) Method 101A in appendix B to this part

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shall be used to test emissions as follows:

(i) The test shall be performed within 90 days of the effective date of these regulations in the case of an existing source or a new source which has an initial startup date preceding the effective date.

(ii) The test shall be performed within 90 days of startup in the case of a new source which did not have an initial startup date preceding the effective date.

(3) The Administrator shall be notified at least 30 days prior to an emission test, so that he may at his option observe the test.

(4) Samples shall be taken over such a period or periods as are necessary to determine accurately the maximum emissions which will occur in a 24-hour period. No changes shall be made in the operation which would potentially increase emissions above the level determined by the most recent stack test, until the new emission level has been estimated by calculation and the results reported to the Administrator.

(5) All samples shall be analyzed and mercury emissions shall be determined within 30 days after the stack test. Each determination shall be reported to the Administrator by a registered letter dispatched within 15 calendar days following the date such determination is completed.

(6) Records of emission test results and other data needed to determine total emissions shall be retained at the source and shall be made available, for inspection by the Administrator, for a minimum of 2 years.

[38 FR 8826, April 6, 1973, as amended at 40 FR 48302, Oct. 14, 1975; 43 FR 8800, March 3, 1978; 47 FR 24704, June 8, 1982; 50 FR 46294, Nov. 7, 1985; 52 FR 8726, March 19, 1987; 65 FR 62151, Oct. 17, 2000]

SOURCE: 38 FR 8826, April 6, 1973; 50 FR 46290 , Nov. 7, 1985; 55 FR 78, Jan. 2, 1990; 59 FR 36301, July 15, 1994; 62 FR 8328, Feb. 24, 1997; 65 FR 78280, Dec. 14, 2000, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

40 C. F. R. § 61.53, 40 CFR § 61.53

Current through October 11, 2012; 77 FR 62132

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C

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Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 61. National Emission Standards for Hazardous Air Pollutants (Refs & Annos)
Subpart E. National Emission Standard for Mercury
§ 61.54 Sludge sampling.

(a) As an alternative means for demonstrating compliance with § 61.52(b), an owner or operator may use Method 105 of appendix B and the procedures specified in this section.

(1) A sludge test shall be conducted within 90 days of the effective date of these regulations in the case of an existing source or a new source which has an initial startup date preceding the effective date; or

(2) A sludge test shall be conducted within 90 days of startup in the case of a new source which did not have an initial startup date preceding the effective date.

(b) The Administrator shall be notified at least 30 days prior to a sludge sampling test, so that he may at his option observe the test.

(c) Sludge shall be sampled according to paragraph (c)(1) of this section, sludge charging rate for the plant shall be determined according to paragraph (c)(2) of this section, and the sludge analysis shall be performed according to paragraph (c)(3) of this section.

(1) The sludge shall be sampled according to Method 105--Determination of Mercury in Wastewater Treatment Plant Sewage Sludges. A total of three composite samples shall be obtained within an operating period of 24 hours. When the 24–hour operating period is not continuous, the total sampling period shall not exceed 72 hours after the first grab sample is obtained. Samples shall not be exposed to any condition that may result in mercury contamination or loss.

(2) The maximum 24–hour period sludge incineration or drying rate shall be determined by use of a flow rate measurement device that can measure the mass rate of sludge charged to the incinerator or dryer with an accuracy of ±5 percent over its operating range. Other methods of measuring sludge mass charging rates may be used if they have received prior approval by the Administrator.

(3) The sampling, handling, preparation, and analysis of sludge samples shall be accomplished according to Method 105 in appendix B of this part.

(d) The mercury emissions shall be determined by use of the following equation.

$E_{Hg}=(MQ\ F_{sm(avg)})/1000$

where:

E_{Hg} = Mercury emissions, g/day.

M=Mercury concentration of sludge on a dry solids basis, <<mu>>g/g.

Q=Sludge changing rate, kg/day.

F_{sm} = Weight fraction of solids in the collected sludge

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after mixing.

1000=Conversion factor, kg <<mu>>g/g^2.

(e) No changes in the operation of a plant shall be made after a sludge test has been conducted which would potentially increase emissions above the level determined by the most recent sludge test, until the new emission level has been estimated by calculation and the results reported to the Administrator.

(f) All sludge samples shall be analyzed for mercury content within 30 days after the sludge sample is collected. Each determination shall be reported to the Administrator by a registered letter dispatched within 15 calendar days following the date such determination is completed.

(g) Records of sludge sampling, charging rate determination and other data needed to determine mercury content of wastewater treatment plant sludges shall be retained at the source and made available, for inspection by the Administrator, for a minimum of 2 years.

[40 FR 48303, Oct. 14, 1975, as amended at 43 FR 8800 , March 3, 1978; 49 FR 35770, Sept. 12, 1984; 52 FR 8727, March 19, 1987; 53 FR 36972, Sept. 23, 1988]

SOURCE: 38 FR 8826, April 6, 1973; 50 FR 46290, Nov. 7, 1985; 55 FR 78, Jan. 2, 1990; 59 FR 36301, July 15, 1994; 62 FR 8328, Feb. 24, 1997; 65 FR 78280, Dec. 14, 2000, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

40 C. F. R. § 61.54, 40 CFR § 61.54

Current through October 11, 2012; 77 FR 62132

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Effective:[See Text Amendments]

Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 61. National Emission Standards for Hazardous Air Pollutants (Refs & Annos)
Subpart E. National Emission Standard for Mercury
§ 61.55 Monitoring of emissions and operations.

(a) Wastewater treatment plant sludge incineration and drying plants. All the sources for which mercury emissions exceed 1.6 kg (3.5 lb) per 24–hour period, demonstrated either by stack sampling according to § 61.53 or sludge sampling according to § 61.54, shall monitor mercury emissions at intervals of at least once per year by use of Method 105 of Appendix B or the procedures specified in § 61.53(d)(2) and (4). The results of monitoring shall be reported and retained according to § 61.53(d)(5) and (6) or § 61.54(f) and (g).

(b) Mercury cell chlor-alkali plants--hydrogen and end-box ventilation gas streams.

(1) The owner or operator of each mercury cell chlor-alkali plant shall, within 1 year of the date of publication of these amendments or within 1 year of startup for a plant with initial startup after the date of publication, perform a mercury emission test that demonstrates compliance with the emission limits in § 61.52, on the hydrogen stream by Method 102 and on the end-box stream by Method 101 for the purpose of establishing limits for parameters to be monitored.

(2) During tests specified in paragraph (b)(1) of this section, the following control device parameters shall be monitored, except as provided in paragraph (c) of this section, and recorded manually or automatically at least once every 15 minutes:

(i) The exit gas temperature from uncontrolled streams;

(ii) The outlet temperature of the gas stream for the final (i.e., the farthest downstream) cooling system when no control devices other than coolers and demisters are used;

(iii) The outlet temperature of the gas stream from the final cooling system when the cooling system is followed by a molecular sieve or carbon adsorber;

(iv) Outlet concentration of available chlorine, pH, liquid flow rate, and inlet gas temperature of chlorinated brine scrubbers and hypochlorite scrubbers;

(v) The liquid flow rate and exit gas temperature for water scrubbers;

(vi) The inlet gas temperature of carbon adsorption systems; and

(vii) The temperature during the heating phase of the regeneration cycle for carbon adsorbers or molecular sieves.

(3) The recorded parameters in paragraphs

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(b)(2)(i) through (b)(2)(vi) of this section shall be averaged over the test period (a minimum of 6 hours) to provide an average number. The highest temperature reading that is measured in paragraph (b)(2)(vii) of this section is to be identified as the reference temperature for use in paragraph (b)(6)(ii) of this section.

(4)(i) Immediately following completion of the emission tests specified in paragraph (b)(1) of this section, the owner or operator of a mercury cell chlor-alkali plant shall monitor and record manually or automatically at least once per hour the same parameters specified in paragraphs (b)(2)(i) through (b)(2)(vi) of this section.

(ii) Immediately following completion of the emission tests specified in paragraph (b)(1) of this section, the owner or operator shall monitor and record manually or automatically, during each heating phase of the regeneration cycle, the temperature specified in paragraph (b)(2)(vii) of this section.

(5) Monitoring devices used in accordance with paragraphs (b)(2) and (b)(4) of this section shall be certified by their manufacturer to be accurate to within 10 percent, and shall be operated, maintained, and calibrated according to the manufacturer's instructions. Records of the certifications and calibrations shall be retained at the chlor-alkali plant and made available for inspection by the Administrator as follows: Certification, for as long as the device is used for this purpose; calibration for a minimum of 2 years.

(6)(i) When the hourly value of a parameter monitored in accordance with paragraph (b)(4)(i) of this section exceeds, or in the case of liquid flow rate and available chlorine falls below the value of that same parameter determined in paragraph (b)(2) of this section for 24 consecutive hours, the Administrator is to be notified within the next 10 days.

(ii) When the maximum hourly value of the temperature measured in accordance with paragraph (b)(4)(ii) of this section is below the reference temperature recorded according to paragraph (b)(3) of this section for three consecutive regeneration cycles, the Administrator is to be notified within the next 10 days.

(7) Semiannual reports shall be submitted to the Administrator indicating the time and date on which the hourly value of each parameter monitored according to paragraphs (b)(4)(i) and (b)(4)(ii) of this section fell outside the value of that same parameter determined under paragraph (b)(3) of this section; and corrective action taken, and the time and date of the corrective action. Parameter excursions will be considered unacceptable operation and maintenance of the emission control system. In addition, while compliance with the emission limits is determined primarily by conducting a performance test according to the procedures in § 61.53(b), reports of parameter excursions may be used as evidence in judging the duration of a violation that is determined by a performance test.

(8) Semiannual reports required in paragraph (b)(7) of this section shall be submitted to the Administrator on September 15 and March 15 of each year. The first semiannual report is to be submitted following the first full 6 month reporting period. The semiannual report due on September 15 (March 15) shall include all excursions monitored through August 31 (February 28) of the same calendar year.

(c) As an alternative to the monitoring, recordkeeping, and reporting requirements in paragraphs (b)(2)

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through (8) of this section, an owner or operator may develop and submit for the Administrator's review and approval a plant-specific monitoring plan. To be approved, such a plan must ensure not only compliance with the emission limits of § 61.52(a) but also proper operation and maintenance of emissions control systems. Any site-specific monitoring plan submitted must, at a minimum, include the following:

(1) Identification of the critical parameter or parameters for the hydrogen stream and for the end-box ventilation stream that are to be monitored and an explanation of why the critical parameter(s) selected is the best indicator of proper control system performance and of mercury emission rates.

(2) Identification of the maximum or minimum value of each parameter (e.g., degrees temperature, concentration of mercury) that is not to be exceeded. The level(s) is to be directly correlated to the results of a performance test, conducted no more than 180 days prior to submittal of the plan, when the facility was in compliance with the emission limits of § 61.52(a).

(3) Designation of the frequency for recording the parameter measurements, with justification if the frequency is less than hourly. A longer recording frequency must be justified on the basis of the amount of time that could elapse during periods of process or control system upsets before the emission limits would be exceeded, and consideration is to be given to the time that would be necessary to repair the failure.

(4) Designation of the immediate actions to be taken in the event of an excursion beyond the value of the parameter established in paragraph (c)(2) of this section.

(5) Provisions for reporting, semiannually, parameter excursions and the corrective actions taken, and provisions for reporting within 10 days any significant excursion.

(6) Identification of the accuracy of the monitoring device(s) or of the readings obtained.

(7) Recordkeeping requirements for certifications and calibrations.

(d) Mercury cell chlor-alkali plants--cell room ventilation system.

(1) Stationary sources determining cell room emissions in accordance with § 61.53(c)(4) shall maintain daily records of all leaks or spills of mercury. The records shall indicate the amount, location, time, and date the leaks or spills occurred, identify the cause of the leak or spill, state the immediate steps taken to minimize mercury emissions and steps taken to prevent future occurrences, and provide the time and date on which corrective steps were taken.

(2) The results of monitoring shall be recorded, retained at the source, and made available for inspection by the Administrator for a minimum of 2 years.

[40 FR 48303, Oct. 14, 1975, as amended at 43 FR 8800, March 3, 1978; 52 FR 8727, March 19, 1987; 65 FR 62151, Oct. 17, 2000]

SOURCE: 38 FR 8826, April 6, 1973; 50 FR 46290 , Nov. 7, 1985; 55 FR 78, Jan. 2, 1990; 59 FR 36301, July 15, 1994; 62 FR 8328, Feb. 24, 1997; 65 FR 78280, Dec. 14, 2000, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

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40 C. F. R. § 61.55, 40 CFR § 61.55

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Effective:[See Text Amendments]

Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 61. National Emission Standards for Hazardous Air Pollutants (Refs & Annos)
Subpart E. National Emission Standard for Mercury
§ 61.56 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 112(d) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities which will not be delegated to States: Sections 61.53(c)(4) and 61.55(d). The authorities not delegated to States listed are in addition to the authorities in the General Provisions, Subpart A of 40 CFR Part 61, that will not be delegated to States (§§ 61.04(b), 61.12(d)(1), and 61.13(h)(1)(ii)).

[52 FR 8728, March 19, 1987]

SOURCE: 38 FR 8826, April 6, 1973; 50 FR 46290 , Nov. 7, 1985; 55 FR 78, Jan. 2, 1990; 59 FR 36301, July 15, 1994; 62 FR 8328, Feb. 24, 1997; 65 FR 78280, Dec. 14, 2000, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

40 C. F. R. § 61.56, 40 CFR § 61.56

Current through October 11, 2012; 77 FR 62132

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Effective:[See Text Amendments]

Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 63. National Emission Standards for Hazardous Air Pollutants for Source Categories (Refs & Annos)
Subpart VVV. National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works (Refs & Annos)
Non-Industrial POTW Treatment Plant Requirements
§ 63.1587 When do I have to comply?

If your POTW treatment plant began construction on or after December 1, 1998, you must comply with all provisions of this subpart either immediately upon startup, or by six months after October 26, 1999, whichever date is later.

SOURCE: 57 FR 61992, Dec. 29, 1992; 64 FR 57579, Oct. 26, 1999, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

40 C. F. R. § 63.1587, 40 CFR § 63.1587

Current through October 11, 2012; 77 FR 62132

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C

Effective:[See Text Amendments]

Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 63. National Emission Standards for Hazardous Air Pollutants for Source Categories (Refs & Annos)
Subpart VVV. National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works (Refs & Annos)
Non-Industrial POTW Treatment Plant Requirements
§ 63.1590 What reports must I submit?

(a)(1) If you have an existing non-industrial POTW treatment plant, or a new or reconstructed area source non-industrial POTW treatment plant, you are not required to submit a notification of compliance status. If you have a new or reconstructed non-industrial POTW treatment plant which is a major source of HAP, you must submit to the Administrator a notification of compliance status, signed by the responsible official who must certify its accuracy, attesting to whether your POTW treatment plant has complied with this subpart. This notification must be submitted initially, and each time a notification of compliance status is required under this subpart. At a minimum, the notification must list--

(i) The methods that were used to determine compliance;

(ii) The results of any monitoring procedures or methods that were conducted;

(iii) The methods that will be used for determining continuing compliance;

(iv) The type and quantity of HAP emitted by your POTW treatment plant;

(v) A description of the air pollution control equipment (or method) for each emission point; and

(vi) Your statement that your POTW treatment plant has complied with this subpart.

(2) You must send this notification before the close of business on the 60th day following the completion of the relevant compliance demonstration activity specified in this subpart.

(b) After you have been issued a title V permit, you must comply with all requirements for compliance status reports contained in your title V permit, including reports required under this subpart. After you have been issued a title V permit, and each time a notification of compliance status is required under this subpart, you must submit the notification of compliance status to the appropriate permitting authority, as described in paragraph (d) of this section, following completion of the relevant compliance demonstration activity specified in this subpart.

(c) You must comply with the delay of repair reporting required in § 63.1588(a)(3).

(d) If your State has not been delegated authority, you must submit reports to your EPA Regional Office. If your State has been delegated authority, you must submit reports to your delegated State authority, and you must send a copy of each report sub-

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mitted to the State to your EPA Regional Office. Your EPA Regional Office, at its discretion, may waive this requirement for any reports.

(e) You may apply to the Administrator for a waiver of recordkeeping and reporting requirements by complying with the requirements of § 63.10(f) of subpart A of this part.

(f) If you own or operate a control device used to meet the requirements of § 63.1586(a), you must submit the reports required by § 63.697(b) of subpart DD of this part, including a notification of performance tests; a performance test report; a startup, shutdown, and malfunction report; and a summary report.

(g) To comply with the performance standard specified in § 63.1586(b), you must submit, for approval by the Administrator, an initial report explaining your compliance approach 90 days prior to beginning operation of your new or reconstructed POTW. You must also submit a startup, shutdown, and malfunction report.

[66 FR 16142, March 23, 2001; 67 FR 64746, Oct. 21, 2002]

SOURCE: 57 FR 61992, Dec. 29, 1992; 64 FR 57579, Oct. 26, 1999, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

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Current through October 11, 2012; 77 FR 62132

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Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 63. National Emission Standards for Hazardous Air Pollutants for Source Categories (Refs & Annos)

Subpart VVV. National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works (Refs & Annos)
Table
Table 1 to Subpart VVV of Part 63--Applicability of 40 CFR Part 63 General Provisions to Subpart VVV

General provisions reference	Applicable to subpart VVV	Explanation
§ 63.1		APPLICABILITY.
§ 63.1(a)(1)	Yes	Terms defined in the Clean Air Act.
§ 63.1(a)(2)	Yes	General applicability explanation.
§ 63.1(a)(3)	Yes	Cannot diminish a stricter NESHAP.
§ 63.1(a)(4)	Yes	Not repetitive. Doesn't apply to section 112(r).
§ 63.1(a)(5)	Yes	Section reserved.
§ 63.1(a)(6)-(8)	Yes	Contacts and authorities.
§ 63.1(a)(9)	Yes	Section reserved.
§ 63.1(a)(10)	Yes	Time period definition.
§ 63.1(a)(11)	Yes	Postmark explanation.
§ 63.1(a)(12)-(14)	Yes	Time period changes. Regulation conflict. Force and effect of subpart A.
§ 63.1(b)(1)	Yes	Initial applicability determination of subpart A.
§ 63.1(b)(2)	Yes	Operating permits by States.
§ 63.1(b)(3)	No	Subpart VVV specifies recordkeeping of records of applicability determination.
§ 63.1(c)(1)	Yes	Requires compliance with both subpart A and subpart VVV.
§ 63.1(c)(2)(i)	No	State options regarding title V permit. Unless required by the State, area sources subject to subpart VVV are

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		exempted from permitting requirements.
§ 63.1(c)(2)(ii)-(iii)	No	State options regarding title V permit.
§ 63.1(c)(3)	Yes	Section reserved.
§ 63.1(c)(4)	Yes	Extension of compliance.
§ 63.1(c)(5)	No	Subpart VVV addresses area sources becoming major due to increase in emissions.
§ 63.1(d)	Yes	Section reserved.
§ 63.1(e)	Yes	Title V permit before a relevant standard is established.
§ 63.2	Yes	DEFINITIONS.
§ 63.3	Yes	UNITS AND ABBREVIATIONS.
§ 63.4		PROHIBITED ACTIVITIES AND CIRCUMVENTION.
§ 63.4(a)(1)-(3)	Yes	Prohibits operation in violation of subpart A.
§ 63.4(a)(4)	Yes	Section reserved.
§ 63.4(a)(5)	Yes	Compliance dates.
§ 63.4(b)	Yes	Circumvention.
§ 63.4(c)	Yes	Severability.
§ 63.5		CONSTRUCTION AND RECONSTRUCTION.
§ 63.5(a)(1)	Yes	Construction and reconstruction.
§ 63.5(a)(2)	Yes	New source--effective dates.
§ 63.5(b)(1)	Yes	New sources subject to relevant standards.
§ 63.5(b)(2)	Yes	Section reserved.
§ 63.5(b)(3)	Yes	No new major sources without Administrator approval.
§ 63.5(b)(4)	Yes	New major source notification.
§ 63.5(b)(5)	Yes	New major sources must comply.
§ 63.5(b)(6)	Yes	New equipment added considered part of major source.
§ 63.5(c)	Yes	Section reserved.
§ 63.5(d)(1)	Yes	Implementation of section 112(I)(2)--application of approval of new source construction.
§ 63.5(d)(2)	Yes	Application for approval of construc-

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		tion for new sources listing and describing planned air pollution control system.
§ 63.5(d)(3)	Yes	Application for reconstruction.
§ 63.5(d)(4)	Yes	Administrator may request additional information.
§ 63.5(e)	Yes	Approval of reconstruction.
§ 63.5(f)(1)	Yes	Approval based on State review.
§ 63.5(f)(2)	Yes	Application deadline.
§ 63.6		COMPLIANCE WITH STANDARDS AND MAINTENANCE REQUIREMENTS.
§ 63.6(a)	Yes	Applicability of compliance with standards and maintenance requirements.
§ 63.6(b)	Yes	Compliance dates for new and reconstructed sources.
§ 63.6(c)	Yes	Compliance dates for existing sources apply to existing industrial POTW treatment plants.
§ 63.6(d)	Yes	Section reserved.
§ 63.6(e)	Yes	Operation and maintenance requirements apply to new sources.
§ 63.6(f)	Yes	Compliance with non-opacity emission standards applies to new sources.
§ 63.6(g)	Yes	Use of alternative non-opacity emission standards applies to new sources.
§ 63.6(h)	No	POTW treatment plants do not typically have visible emissions.
§ 63.6(i)	Yes	Extension of compliance with emission standards applies to new sources.
§ 63.6(j)	Yes	Presidential exemption from compliance with emission standards.
§ 63.7		PERFORMANCE TESTING REQUIREMENTS.
§ 63.7(a)	Yes	Performance testing is required for new sources.
§ 63.7(b)	Yes	New sources must notify the Administrator of intention to conduct performance testing.
§ 63.7(c)	Yes	New sources must comply with qual-

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		ity assurance program requirements.
§ 63.7(d)	Yes	New sources must provide performance testing facilities at the request of the Administrator.
§ 63.7(e)	Yes	Requirements for conducting performance tests apply to new sources.
§ 63.7(f)	Yes	New sources may use an alternative test method.
§ 63.7(g)	Yes	Requirements for data analysis, recordkeeping, and reporting associated with performance testing apply to new sources.
§ 63.7(h)	Yes	New sources may request a waiver of performance tests.
§ 63.8		MONITORING REQUIREMENTS.
§ 63.8(a)	Yes	Applicability of monitoring requirements.
§ 63.8(b)	Yes	Monitoring shall be conducted by new sources.
§ 63.8(c)	Yes	New sources shall operate and maintain continuous monitoring systems (CMS).
§ 63.8(d)	Yes	New sources must develop and implement a CMS quality control program.
§ 63.8(e)	Yes	New sources may be required to conduct a performance evaluation of CMS.
§ 63.8(f)	Yes	New sources may use an alternative monitoring method.
§ 63.8(g)	Yes	Requirements for reduction of monitoring data.
§ 63.9		NOTIFICATION REQUIREMENTS.
§ 63.9(a)	Yes	Applicability of notification requirements.
§ 63.9(b)	Yes	Applicability of notification requirements. Existing major non-industrial POTW treatment plants, and existing and new or reconstructed area non-industrial POTW treatment plants are not subject to the notification requirements.

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§ 63.9(c)	Yes	Request for extension of compliance with subpart VVV.
§ 63.9(d)	Yes	Notification that source is subject to special compliance requirements as specified in § 63.6(b)(3) and (4).
§ 63.9(e)	Yes	Notification of performance test.
§ 63.9(f)	No	POTW treatment plants do not typically have visible emissions.
§ 63.9(g)	Yes	Additional notification requirements for sources with continuous emission monitoring systems.
§ 63.9(h)	Yes	Notification of compliance status when the source becomes subject to subpart VVV.
§ 63.9(i)	Yes	Adjustments to time periods or postmark deadlines or submittal and review of required communications.
§ 63.9(j)	Yes	Change of information already provided to the Administrator.
§ 63.10		RECORDKEEPING AND REPORTING REQUIREMENTS.
§ 63.10(a)	Yes	Applicability of notification and reporting requirements.
§ 63.10(b)(1)-(2)	Yes	General recordkeeping requirements.
§ 63.10(b)(3)	No	Recording requirement for applicability determination.
§ 63.10(c)	Yes	Additional recordkeeping requirements for sources with continuous monitoring systems.
§ 63.10(d)	Yes	General reporting requirements.
§ 63.10(e)	Yes	Additional reporting requirements for sources with continuous monitoring systems.
§ 63.10(f)	Yes	Waiver of recordkeeping and reporting requirements.
§ 63.11	Yes	Control device and equipment leak work practice requirements.
§ 63.11(a) and (b)	Yes	If a new source uses flares to comply with the requirements of subpart VVV, the requirements of § 63.11 apply.

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§ 63.11(c), (d) and (e)	Yes	Alternative work practice for equipment leaks.
§ 63.12	Yes	STATE AUTHORITY AND DESIGNATION.
§ 63.13	Yes	ADDRESSES OF STATE AIR POLLUTION CONTROL AGENCIES AND EPA REGIONAL OFFICES.
§ 63.14	Yes	INCORPORATION BY REFERENCE.
§ 63.15	Yes	AVAILABILITY OF INFORMATION AND CONFIDENTIALITY.

[66 FR 16142, March 23, 2001; 67 FR 64746, Oct. 21, 2002; 73 FR 78215, Dec. 22, 2008]

SOURCE: 57 FR 61992, Dec. 29, 1992; 64 FR 57579, Oct. 26, 1999, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

40 C. F. R. Pt. 63, Subpt. VVV, Tbl. 1, 40 CFR Pt. 63, Subpt. VVV, Tbl. 1

Current through October 11, 2012; 77 FR 62132

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US EPA ARCHIVE DOCUMENT

Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency
Subchapter C. Air Programs
Part 63. National Emission Standards for Hazardous Air Pollutants for Source Categories
Subpart VVV. National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works

Source: 64 FR 57579, Oct. 26, 1999, unless otherwise noted.

C. F. R. T. 40, Ch. I, Subch. C, Pt. 63, Subpt. VVV, Refs & Annos, CFR T. 40, Ch. I, Subch. C, Pt. 63, Subpt. VVV, Refs & Annos

Current through October 11, 2012; 77 FR 62132

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US EPA ARCHIVE DOCUMENT

C

Effective:[See Text Amendments]

Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 63. National Emission Standards for Hazardous Air Pollutants for Source Categories (Refs & Annos)
Subpart VVV. National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works (Refs & Annos)
Applicability
§ 63.1580 Am I subject to this subpart?

(a) You are subject to this subpart if the following are all true:

(1) You own or operate a publicly owned treatment works (POTW) that includes an affected source (§ 63.1595);

(2) The affected source is located at a POTW which is a major source of HAP emissions, or at any industrial POTW regardless of whether or not it is a major source of HAP; and

(3) Your POTW is required to develop and implement a pretreatment program as defined by 40 CFR 403.8 (for a POTW owned or operated by a municipality, State, or intermunicipal or interstate agency), or your POTW would meet the general criteria for development and implementation of a pretreatment program (for a POTW owned or operated by a department, agency, or instrumentality of the Federal government).

(b) If your existing POTW treatment plant is not located at a major source as of October 26, 1999, but thereafter becomes a major source for any reason other than reconstruction, then, for the purpose of this subpart, your POTW treatment plant would be considered an existing source. Note to Paragraph (b): See § 63.2 of the national emission standards for hazardous air pollutants (NESHAP) General Provisions in subpart A of this part for the definitions of major source and area source.

(c) If you reconstruct your POTW treatment plant, then the requirements for a new or reconstructed POTW treatment plant, as defined in § 63.1595, apply.

[67 FR 64745, Oct. 21, 2002]

SOURCE: 57 FR 61992, Dec. 29, 1992; 64 FR 57579, Oct. 26, 1999, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

40 C. F. R. § 63.1580, 40 CFR § 63.1580

Current through October 11, 2012; 77 FR 62132

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US EPA ARCHIVE DOCUMENT

Effective:[See Text Amendments]

Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 63. National Emission Standards for Hazardous Air Pollutants for Source Categories (Refs & Annos)
Subpart VVV. National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works (Refs & Annos)
Applicability
§ 63.1581 Does the subpart distinguish between different types of POTW treatment plants?

Yes, POTW treatment plants are divided into two subcategories. A POTW treatment plant which does not meet the characteristics of an industrial POTW treatment plant belongs in the non-industrial POTW treatment plant subcategory as defined in § 63.1595 .

SOURCE: 57 FR 61992, Dec. 29, 1992; 64 FR 57579, Oct. 26, 1999, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

40 C. F. R. § 63.1581, 40 CFR § 63.1581

Current through October 11, 2012; 77 FR 62132

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US EPA ARCHIVE DOCUMENT

Effective:[See Text Amendments]

Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 63. National Emission Standards for Hazardous Air Pollutants for Source Categories (Refs & Annos)
Subpart VVV. National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works (Refs & Annos)
Industrial POTW Treatment Plant Description and Requirements
§ 63.1582 What are the characteristics of an industrial POTW treatment plant?

(a) Your POTW is an industrial POTW treatment plant if an industrial discharger complies with its NESHAP by using the treatment and controls located at your POTW. Your POTW accepts the regulated waste stream and provides treatment and controls as an agent for the industrial discharger. Industrial POTW treatment plant is defined in § 63.1595.

(b) If, in the future, an industrial discharger begins complying with its NESHAP by using the treatment and controls at your POTW, then on the date that the industrial discharger certifies compliance, your POTW treatment plant will be considered an industrial POTW treatment plant.

(c) If your POTW treatment plant accepts one or more specific regulated industrial waste streams as part of compliance with one or more other NESHAP, then you are subject to all the requirements of each appropriate NESHAP for each waste stream, as described in the following section. In the case of overlapping NESHAP requirements, the more stringent of the requirements will apply.

SOURCE: 57 FR 61992, Dec. 29, 1992; 64 FR 57579, Oct. 26, 1999, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

40 C. F. R. § 63.1582, 40 CFR § 63.1582

Current through October 11, 2012; 77 FR 62132

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US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

Effective:[See Text Amendments]

Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 63. National Emission Standards for Hazardous Air Pollutants for Source Categories (Refs & Annos)
Subpart VVV. National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works (Refs & Annos)
Industrial POTW Treatment Plant Description and Requirements
§ 63.1583 What are the emission points and control requirements for an industrial POTW treatment plant?

(a) The emission points and control requirements for an existing industrial POTW treatment plant are specified in the appropriate NESHAP(s) for the industrial user(s) (see § 63.1582). For example, an existing industrial POTW treatment plant that provides treatment for a facility subject to subpart FF of this part, the National Emission Standard for Benzene Waste Operations, must meet the treatment and control requirements specified in § 61.348(d)(4) of this chapter.

(b) The emission points and control requirements for a new or reconstructed industrial POTW treatment plant are either those specified by the particular NESHAP(s) which apply to the industrial user(s) who discharge their waste for treatment to the POTW, or those emission points and control requirements set forth in § 63.1586. The set of control requirements which applies to a particular new or reconstructed POTW is that set which requires the most stringent overall control of HAP emissions. If you are uncertain which set of requirements is more stringent, this determination should be made in consultation with the permitting authority. Reconstruction is defined in § 63.1595.

SOURCE: 57 FR 61992, Dec. 29, 1992; 64 FR 57579, Oct. 26, 1999, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

40 C. F. R. § 63.1583, 40 CFR § 63.1583

Current through October 11, 2012; 77 FR 62132

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Effective:[See Text Amendments]

Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 63. National Emission Standards for Hazardous Air Pollutants for Source Categories (Refs & Annos)
Subpart VVV. National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works (Refs & Annos)
Industrial POTW Treatment Plant Description and Requirements
§ 63.1584 When do I have to comply?

(a) Existing industrial POTW treatment plant. If you have an existing industrial POTW treatment plant, the appropriate NESHAP(s) for the industrial user(s) sets the compliance date, or the compliance date is 60 days after October 26, 1999, whichever is later.

(b) New industrial POTW treatment plant. If you have a new industrial POTW treatment plant, you must be in compliance as soon as you begin accepting the waste stream(s) for treatment. If you begin accepting a specific regulated industrial waste stream(s) for treatment, you must be in compliance by the time specified in the appropriate NESHAP(s) for the industrial user(s).

SOURCE: 57 FR 61992, Dec. 29, 1992; 64 FR 57579, Oct. 26, 1999, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

40 C. F. R. § 63.1584, 40 CFR § 63.1584

Current through October 11, 2012; 77 FR 62132

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US EPA ARCHIVE DOCUMENT

C

Effective:[See Text Amendments]

Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 63. National Emission Standards for Hazardous Air Pollutants for Source Categories (Refs & Annos)
Subpart VVV. National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works (Refs & Annos)
Industrial POTW Treatment Plant Description and Requirements
§ 63.1585 How does an industrial POTW treatment plant demonstrate compliance?

(a) An existing industrial POTW treatment plant demonstrates compliance by operating treatment and control devices which meet all requirements specified in the appropriate industrial NESHAP(s). Requirements may include performance tests, routine monitoring, recordkeeping, and reporting.

(b) If you have a new or reconstructed industrial POTW plant, you must first determine whether the control requirements set forth in the applicable industrial NESHAP(s) or the control requirements applicable to a new or reconstructed nonindustrial POTW under § 63.1586 would require more stringent overall control of HAP emissions. You must then meet whichever set of requirements is more stringent. If you determine that the controls required by the applicable industrial NESHAP(s) are more stringent, you demonstrate compliance by operating treatment and control devices which meet all requirements specified in those industrial NESHAP(s). If you determine that the controls required for a new or reconstructed nonindustrial POTW are more stringent, you demonstrate compliance by meeting all requirements in §§ 63.1586 through 63.1590.

SOURCE: 57 FR 61992, Dec. 29, 1992; 64 FR 57579, Oct. 26, 1999, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

40 C. F. R. § 63.1585, 40 CFR § 63.1585

Current through October 11, 2012; 77 FR 62132

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C

Effective:[See Text Amendments]

Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 63. National Emission Standards for Hazardous Air Pollutants for Source Categories (Refs & Annos)
Subpart VVV. National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works (Refs & Annos)
Non-Industrial POTW Treatment Plant Requirements
§ 63.1586 What are the emission points and control requirements for a non-industrial POTW treatment plant?

There are no control requirements for an existing non-industrial POTW treatment plant. There are no control requirements for any new or reconstructed area source non-industrial POTW treatment plant which is not a major source of HAP. The control requirements for a new or reconstructed major source non-industrial POTW treatment plant which is a major source of HAP are as follows:

(a) Covers on the emission points up to, but not including, the secondary influent pumping station or the secondary treatment units. These emission points are treatment units that include, but are not limited to, influent waste stream conveyance channels, bar screens, grit chambers, grinders, pump stations, aerated feeder channels, primary clarifiers, primary effluent channels, and primary screening stations. In addition, all covered units, except primary clarifiers, must have the air in the headspace ducted to a control device in accordance with the standards for closed-vent systems and control devices in § 63.693 of subpart DD of this part, except you may substitute visual inspections for leak checks rather than Method 21 of Appendix A of part 60 of this chapter. Reconstruction is defined in § 63.1595.

(1) Covers must be tightly fitted and designed and operated to minimize exposure of the wastewater to the atmosphere. This includes, but is not limited to, the absence of visible cracks, holes, or gaps in the roof sections or between the roof and the supporting wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(2) If wastewater is in a treatment unit, each opening must be maintained in a closed, sealed position, unless plant personnel are present and conducting wastewater or sludge sampling, or equipment inspection, maintenance, or repair.

(b) As an alternative to the requirements in paragraph (a) of this section, you may comply by demonstrating, for all units up to the secondary influent pumping station or the secondary treatment units, that the fraction emitted does not exceed 0.014. You must demonstrate that for your POTW, the sum of all HAP emissions from those units divided by the sum of all HAP mass loadings results in a annual rolling average of the fraction emitted no greater than 0.014. You may use any combination of pretreatment, wastewater treatment plant modifications, and control devices to achieve this performance standard; however, you must demonstrate, to the Administrator's satisfaction that:

(1) You have accurately determined your POTW's annual HAP mass loadings and your

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POTW's annual HAP emissions as of the date of start-up;

(2) Your POTW meets the fraction emitted standard of 0.014 or less; and

(3) Your POTW has established procedures to demonstrate continuous compliance which are consistent with the criteria set forth in § 63.1588(c)(4).

[66 FR 16142, March 23, 2001; 67 FR 64746, Oct. 21, 2002]

SOURCE: 57 FR 61992, Dec. 29, 1992; 64 FR 57579, Oct. 26, 1999, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

40 C. F. R. § 63.1586, 40 CFR § 63.1586

Current through October 11, 2012; 77 FR 62132

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Effective:[See Text Amendments]

Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 63. National Emission Standards for Hazardous Air Pollutants for Source Categories (Refs & Annos)
Subpart VVV. National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works (Refs & Annos)
Non-Industrial POTW Treatment Plant Requirements
§ 63.1587 When do I have to comply?

If your POTW treatment plant began construction on or after December 1, 1998, you must comply with all provisions of this subpart either immediately upon startup, or by six months after October 26, 1999, whichever date is later.

SOURCE: 57 FR 61992, Dec. 29, 1992; 64 FR 57579, Oct. 26, 1999, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

40 C. F. R. § 63.1587, 40 CFR § 63.1587

Current through October 11, 2012; 77 FR 62132

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C

Effective:[See Text Amendments]

Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 63. National Emission Standards for Hazardous Air Pollutants for Source Categories (Refs & Annos)
Subpart VVV. National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works (Refs & Annos)
Non-Industrial POTW Treatment Plant Requirements
§ 63.1588 What inspections must I conduct?

(a) If your treatment units are required to have covers, you must conduct the following inspections:

(1) You must visually check the cover and its closure devices for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the supporting wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(2) You must perform an initial visual inspection with follow-up inspections at least once per year.

(3) In the event that you find a defect on a treatment unit in use, you must repair the defect within 45 days. If you cannot repair within 45 days, you must notify the EPA or the designated State authority immediately and report the reason for the delay and the date you expect to complete the repair. If you find a defect on a treatment unit that is not in service, you must repair the defect prior to putting the treatment unit back in wastewater service.

(b) If you own or operate a control device used to meet the requirements for § 63.1586, you must comply with the inspection and monitoring requirements of § 63.695(c) of subpart DD of this part.

(c) To comply with the performance standard specified in § 63.1586(b), you must develop an inspection and monitoring plan. This inspection and monitoring plan must include, at a minimum, the following:

(1) A method to determine, to the satisfaction of the Administrator, the influent HAP mass loading, i.e., the annual mass quantity for each HAP entering the wastewater treatment plant.

(2) A method to determine, to the satisfaction of the Administrator, your POTW's annual HAP emissions for all units up to and including the secondary influent pumping station or up to and not including the secondary treatment units as of October 26, 1999. The method you use to determine your HAP emissions, such as modeling or direct source measurement, must:

(i) Be approved by your EPA Regional Office, State, or local regulatory agency for use at your POTW;

(ii) Account for all factors affecting emissions from your plant including, but not limited to, emissions from wastewater treatment units;

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emissions resulting from inspection, maintenance, and repair activities; fluctuations (e.g., daily, monthly, annual, seasonal) in your influent wastewater HAP concentrations; annual industrial loading; performance of control devices; or any other factors that could affect your annual HAP emissions; and

(iii) Include documentation that the values and sources of all data, operating conditions, assumptions, etc., used in your method result in an accurate estimation of annual emissions from your plant.

(3) Documentation, to the satisfaction of the Administrator, that your POTW meets the fraction emitted standard of 0.014 or less, i.e., the sum of all HAP emissions from paragraph (c)(2) of this section divided by the sum of all HAP mass loadings from paragraph (c)(1) of this section results in a fraction emitted of 0.014 or less as described in paragraph (c)(4) of this section.

(4) A method to demonstrate, to the satisfaction of the Administrator, that your POTW is in continuous compliance with the requirements of § 63.1586(b). Continuous compliance means that your emissions, when averaged over the course of a year, do not exceed the level of emissions that allows your POTW to comply with § 63.1586(b). For example, you may identify a parameter(s) that you can monitor that assures your emissions, when averaged over the entire year, will meet the requirements in § 63.1586(b). Some example parameters that may be considered for monitoring include your wastewater influent HAP concentration and flow, industrial loading from your permitted industrial dischargers, and your control device performance criteria. Where emission reductions are due to proper operation of equipment, work practices, or other operational procedures, your demonstration must specify the frequency of inspections and the number of days to completion of repairs. You must, at a minimum, perform the following each month to demonstrate that your annual rolling average of the fraction emitted is 0.014 or less:

(i) Determine the average daily flow of the wastewater entering your POTW treatment plant for the month;

(ii) Determine the flow-weighted monthly concentration of each HAP in your influent listed in Table 1 to subpart DD of this part;

(iii) Using the current month's information in paragraphs (c)(4)(i) and (ii) of this section, determine a total annual loading (Mg/year) of each HAP entering your POTW treatment plant;

(iv) Sum up the values in paragraph (c)(4)(iii) of this section and determine a total annual loading value (Mg/year) for all HAP entering your POTW treatment plant for the current month;

(v) Based on the current month's information in paragraph (c)(4)(iii) of this section along with source testing and emission modeling, for each HAP, determine annual emissions (Mg/year) from all wastewater units up to, but not including, secondary treatment units;

(vi) Sum up the values in paragraph (c)(4)(v) of this section and determine the total annual emissions value for the month for all HAP from all wastewater units up to, but not including, secondary treatment units;

(vii) Calculate the fraction emitted value for

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the month by dividing the total annual HAP emissions value from paragraph (c)(4)(vi) of this section by the total annual loading from paragraph (c)(4)(iv) of this section; and

(viii) Average the fraction emitted value for the month determined in paragraph (c)(4)(vii) of this section, with the values determined for the previous 11 months, to calculate an annual rolling average of the fraction HAP emitted.

SOURCE: 57 FR 61992, Dec. 29, 1992; 64 FR 57579, Oct. 26, 1999, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

40 C. F. R. § 63.1588, 40 CFR § 63.1588

Current through October 11, 2012; 77 FR 62132

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US EPA ARCHIVE DOCUMENT

Effective:[See Text Amendments]

Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 63. National Emission Standards for Hazardous Air Pollutants for Source Categories (Refs & Annos)
Subpart VVV. National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works (Refs & Annos)
Non-Industrial POTW Treatment Plant Requirements
§ 63.1589 What records must I keep?

(a) To comply with the equipment standard specified in § 63.1586(a), you must prepare and maintain the records required in paragraphs (a)(1) through (4) of this section:

(1) A record for each treatment unit inspection required by § 63.1588(a). You must include a treatment unit identification number (or other unique identification description as selected by you) and the date of inspection.

(2) For each defect detected during inspections required by § 63.1588(a), you must record the location of the defect, a description of the defect, the date of detection, the corrective action taken to repair the defect, and the date the repair to correct the defect is completed.

(3) In the event that repair of the defect is delayed, in accordance with the provisions of § 63.1588(a)(3), you must also record the reason for the delay and the date you expect to complete the repair.

(4) If you own or operate a control device used to meet the requirements for § 63.1586, you must comply with the recordkeeping requirements of § 63.696(a), (b), (g), and (h).

(b) To comply with the performance standard specified in § 63.1586(b), you must prepare and maintain the records required in paragraphs (b)(1) through (3) of this section:

(1) A record of the methods and data used to determine your POTW's annual HAP emissions as determined in § 63.1588(c)(2);

(2) A record of the methods and data used to determine that your POTW meets the fraction emitted standard of 0.014 or less, as determined in § 63.1588(c)(3); and

(3) A record of the methods and data that demonstrates that your POTW is in continuous compliance with the requirements of § 63.1588(c)(4).

[66 FR 16142, March 23, 2001]

SOURCE: 57 FR 61992, Dec. 29, 1992; 64 FR 57579, Oct. 26, 1999, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

40 C. F. R. § 63.1589, 40 CFR § 63.1589

Current through October 11, 2012; 77 FR 62132

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US EPA ARCHIVE DOCUMENT

C

Effective:[See Text Amendments]

Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 63. National Emission Standards for Hazardous Air Pollutants for Source Categories (Refs & Annos)
Subpart VVV. National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works (Refs & Annos)
General Requirements
§ 63.1591 What are my notification requirements?

(a) If you have an industrial POTW treatment plant or a new or reconstructed non-industrial POTW which is a major source of HAP, and your State has not been delegated authority, you must submit notifications to the appropriate EPA Regional Office. If your State has been delegated authority you must submit notifications to your State and a copy of each notification to the appropriate EPA Regional Office. The Regional Office may waive this requirement for any notifications at its discretion.

(b) You must notify the Administrator in writing no later than 120 calendar days after the effective date of this subpart (or within 120 calendar days after your POTW treatment plant becomes subject to the relevant standard), and you must provide the following information:

(1) Your name and address;

(2) The address (i.e., physical location) of your POTW treatment plant;

(3) An identification of these standards as the basis of the notification and your POTW treatment plant's compliance date; and

(4) A brief description of the nature, size, design, and method of operation of your POTW treatment plant, including its operating design capacity and an identification of each point of emission for each HAP, or if a definitive identification is not yet possible, a preliminary identification of each point of emission for each HAP.

(c) You must notify the Administrator if your data show that you are no longer in continuous compliance.

[67 FR 64746, Oct. 21, 2002]

SOURCE: 57 FR 61992, Dec. 29, 1992; 64 FR 57579, Oct. 26, 1999, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

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Current through October 11, 2012; 77 FR 62132

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Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 63. National Emission Standards for Hazardous Air Pollutants for Source Categories (Refs & Annos)
Subpart VVV. National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works (Refs & Annos)
General Requirements
§ 63.1592 Which General Provisions apply to my POTW treatment plant?

(a) Table 1 to this subpart lists the General Provisions (40 CFR part 63, subpart A) which do and do not apply to POTW treatment plants.

(b) Unless a permit is otherwise required by law, the owner or operator of an industrial POTW which is not a major source is exempt from the permitting requirements established by 40 CFR part 70.

[67 FR 64746, Oct. 21, 2002]

SOURCE: 57 FR 61992, Dec. 29, 1992; 64 FR 57579, Oct. 26, 1999, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

40 C. F. R. § 63.1592, 40 CFR § 63.1592

Current through October 11, 2012; 77 FR 62132

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Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 63. National Emission Standards for Hazardous Air Pollutants for Source Categories (Refs & Annos)
Subpart VVV. National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works (Refs & Annos)
General Requirements
§ 63.1593 How will the EPA determine if I am in compliance with this subpart?

(a) The Administrator will determine compliance with this subpart by reviewing your reports and records or by inspecting your POTW treatment plant.

(b) If you fail to comply with any or all of the provisions of this subpart, you will be considered in violation of this subpart. For example, failure to perform any or all of the following, specified in § 63.1588, would be a violation: failure to visually inspect the cover on your treatment unit, failure to repair a defect on a treatment unit in use within the specified time period, failure to report a delay in repair, failure to determine your POTW's annual HAP emissions when your new or reconstructed POTW becomes subject to this subpart, failure to demonstrate that your POTW achieves an HAP fraction emitted of 0.014, or failure to demonstrate that your POTW is in continuous compliance with the requirements of § 63.1586(b).

(c) Your POTW treatment plant may be exempted from compliance with this subpart if the President determines that the technology to implement these standards is not available, and that it is in the national security interests of the United States to do so. This exemption may last for up to 2 years at a time and may be extended for additional periods of up to 2 years each.

SOURCE: 57 FR 61992, Dec. 29, 1992; 64 FR 57579, Oct. 26, 1999, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

40 C. F. R. § 63.1593, 40 CFR § 63.1593

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Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 63. National Emission Standards for Hazardous Air Pollutants for Source Categories (Refs & Annos)
Subpart VVV. National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works (Refs & Annos)
General Requirements
§ 63.1594 Who enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

(c) The authorities that cannot be delegated to State, local, or Tribal agencies are as specified in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to the requirements in §§ 63.1580, 63.1583 through 63.1584, and 63.1586 through 63.1587.

(2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f), as defined in § 63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under § 63.8(f), as defined in § 63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f), as defined in § 63.90, and as required in this subpart.

[68 FR 37360, June 23, 2003]

SOURCE: 57 FR 61992, Dec. 29, 1992; 64 FR 57579, Oct. 26, 1999, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

40 C. F. R. § 63.1594, 40 CFR § 63.1594

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Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter C. Air Programs
Part 63. National Emission Standards for Hazardous Air Pollutants for Source Categories (Refs & Annos)
Subpart VVV. National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works (Refs & Annos)
General Requirements
§ 63.1595 List of definitions.

Affected source means the group of all equipment that comprise the POTW treatment plant.

Area source means any stationary source of HAP that is not a major source.

Cover means a device that prevents or reduces air pollutant emissions to the atmosphere by forming a continuous barrier over the waste material managed in a treatment unit. A cover may have openings (such as access hatches, sampling ports, gauge wells) that are necessary for operation, inspection, maintenance, and repair of the treatment unit on which the cover is used. A cover may be a separate piece of equipment which can be detached and removed from the treatment unit, or a cover may be formed by structural features permanently integrated into the design of the treatment unit. The cover and its closure devices must be made of suitable materials that will minimize exposure of the waste material to the atmosphere, to the extent practical, and will maintain the integrity of the cover and its closure devices throughout its intended service life.

Fraction emitted means the fraction of the mass of HAP entering the POTW wastewater treatment plant which is emitted prior to secondary treatment. The value is calculated using the following steps:

(1) Determine mass emissions from all equipment up to, but not including, secondary treatment for each HAP listed in Table 1 to subpart DD of this part;

(2) Sum the HAP emissions (SIGMAE);

(3) Sum the HAP mass loadings (SIGMAL) in the influent to the POTW wastewater treatment plant; and

(4) Calculate the fraction emitted (f_e monthly) using f_e monthly = SIGMAE/SIGMAL.

HAP means hazardous air pollutant(s).

Industrial POTW means a POTW that accepts a waste stream regulated by an industrial NESHAP and provides treatment and controls as an agent for the industrial discharger. The industrial discharger complies with its NESHAP by using the treatment and controls located at the POTW. For example, an industry discharges its benzene-containing waste stream to the POTW for treatment to comply with 40 CFR part 61, Subpart FF--National Emission Standard for Benzene Waste Operations. This definition does not include POTW treating waste streams not specifically regulated under another NESHAP.

Industrial user means a nondomestic source introducing any pollutant or combination of pollutants into a POTW. Industrial users can be commercial or industrial facilities whose wastes enter local sewers.

Non-industrial POTW means a POTW that does not meet the definition of an industrial POTW as defined above.

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Publicly owned treatment works (POTW) means a treatment works, as that term is defined by section 112(e)(5) of the Clean Air Act, which is owned by a municipality (as defined by section 502(4) of the Clean Water Act), a State, an intermunicipal or interstate agency, or any department, agency, or instrumentality of the Federal Government. This definition includes any intercepting sewers, outfall sewers, sewage collection systems, pumping, power, and other equipment. The wastewater treated by these facilities is generated by industrial, commercial, and domestic sources. As used in this regulation, the term POTW refers to both any publicly owned treatment works which is owned by a State, municipality, or intermunicipal or interstate agency and therefore eligible to receive grant assistance under the Subchapter II of the Clean Water Act, and any federally owned treatment works as that term is described in section 3023 of the Solid Waste Disposal Act.

POTW treatment plant means that portion of the POTW which is designed to provide treatment (including recycling and reclamation) of municipal sewage and industrial waste.

Reconstruction means the replacement of components of an affected or a previously unaffected stationary source such that:

(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and

(2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act. Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of HAP from that source.

Secondary treatment means treatment processes, typically biological, designed to reduce the concentrations of dissolved and colloidal organic matter in wastewater.

Waste and wastewater means a material, or spent or used water or waste, generated from residential, industrial, commercial, mining, or agricultural operations or from community activities that contain dissolved or suspended matter, and that is discarded, discharged, or is being accumulated, stored, or physically, chemically, thermally, or biologically treated in a publicly owned treatment works.

[66 FR 16142, March 23, 2001]

SOURCE: 57 FR 61992, Dec. 29, 1992; 64 FR 57579, Oct. 26, 1999, unless otherwise noted.

AUTHORITY: 42 U.S.C. 7401 et seq.

40 C. F. R. § 63.1595, 40 CFR § 63.1595

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Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter O. Sewage Sludge
Part 503. Standards for the Use or Disposal of Sewage Sludge (Refs & Annos)
Subpart A. General Provisions
§ 503.1 Purpose and applicability.

(a) Purpose.

(1) This part establishes standards, which consist of general requirements, pollutant limits, management practices, and operational standards, for the final use or disposal of sewage sludge generated during the treatment of domestic sewage in a treatment works. Standards are included in this part for sewage sludge applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator. Also included in this part are pathogen and alternative vector attraction reduction requirements for sewage sludge applied to the land or placed on a surface disposal site.

(2) In addition, the standards in this part include the frequency of monitoring and recordkeeping requirements when sewage sludge is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator. Also included in this part are reporting requirements for Class I sludge management facilities, publicly owned treatment works (POTWs) with a design flow rate equal to or greater than one million gallons per day, and POTWs that serve 10,000 people or more.

(b) Applicability.

(1) This part applies to any person who prepares sewage sludge, applies sewage sludge to the land, or fires sewage sludge in a sewage sludge incinerator and to the owner/operator of a surface disposal site.

(2) This part applies to sewage sludge applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator.

(3) This part applies to the exit gas from a sewage sludge incinerator stack.

(4) This part applies to land where sewage sludge is applied, to a surface disposal site, and to a sewage sludge incinerator.

SOURCE: 58 FR 9387, Feb. 19, 1993, unless otherwise noted.

AUTHORITY: Sections 405 (d) and (e) of the Clean Water Act, as amended by Pub.L. 95–217, Sec. 54(d), 91 Stat. 1591 (33 U.S.C. 1345 (d) and (e)); and Pub.L. 100–4, Title IV, Sec. 406 (a), (b), 101 Stat., 71, 72 (33 U.S.C. 1251 et seq.).

40 C. F. R. § 503.1, 40 CFR § 503.1

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Code of Federal Regulations Currentness
Title 40. Protection of Environment
Chapter I. Environmental Protection Agency (Refs & Annos)
Subchapter O. Sewage Sludge
Part 503. Standards for the Use or Disposal of Sewage Sludge (Refs & Annos)
Subpart E. Incineration
§ 503.43 Pollutant limits.

(a) Firing of sewage sludge in a sewage sludge incinerator shall not violate the requirements in the National Emission Standard for Beryllium in subpart C of 40 CFR part 61.

(b) Firing of sewage sludge in a sewage sludge incinerator shall not violate the requirements in the National Emission Standard for Mercury in subpart E of 40 CFR part 61.

(c) Pollutant limit--lead.

(1) The average daily concentration for lead in sewage sludge fed to a sewage sludge incinerator shall not exceed the concentration calculated using Equation (4).

$$C = \frac{0.1 \times NAAQS \times 86{,}400}{DF \times (1 - CE) \times SF} \qquad \text{Eq. (4)}$$

Where:

C = Average daily concentration of lead in sewage sludge.

NAAQS = National Ambient Air Quality Standard for lead in micrograms per cubic meter.

DF = Dispersion factor in micrograms per cubic meter per gram per second.

CE = Sewage sludge incinerator control efficiency for lead in hundredths.

SF = Sewage sludge feed rate in metric tons per day (dry weight basis).

(2) The dispersion factor (DF) in equation (4) shall be determined from an air dispersion model in accordance with § 503.43(e).

(i) When the sewage sludge stack height is 65 meters or less, the actual sewage sludge incinerator stack height shall be used in the air dispersion model to determine the dispersion factor (DF) for equation (4).

(ii) When the sewage sludge incinerator stack height exceeds 65 meters, the creditable stack height shall be determined in accordance with 40 CFR 51.100(ii) and the creditable stack height shall be used in the air dispersion model to determine the dispersion factor (DF) for equation (4).

(3) The control efficiency (CE) for equation (4) shall be determined from a performance test of the sewage sludge incinerator in accordance with § 503.43(e).

(d) Pollutant limit--arsenic, cadmium, chromium, and nickel.

(1) The average daily concentration for arsenic, cadmium, chromium, and nickel in sewage sludge fed to a sewage sludge incinerator each shall not exceed the concentration calculated using equation

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(5).

$$C = \frac{RSC \times 86{,}400}{DF \times (1 - CE) \times SF} \qquad \text{Eq. (5)}$$

Where:

C = Average daily concentration of arsenic, cadmium, chromium, or nickel in sewage sludge.

CE = Sewage sludge incinerator control efficiency for arsenic, cadmium, chromium, or nickel in hundredths.

DF = Dispersion factor in micrograms per cubic meter per gram per second.

RSC = Risk specific concentration for arsenic, cadmium, chromium, or nickel in micrograms per cubic meter.

SF = Sewage sludge feed rate in metric tons per day (dry weight basis).

(2) The risk specific concentrations for arsenic, cadmium, and nickel used in equation (5) shall be obtained from Table 1 of § 503.43.

Table 1 of § 503.43.--Risk Specific Concentration for Arsenic, Cadmium, and Nickel

Pollutant	Risk specific concentration (micrograms per cubic meter)
Arsenic	0.023
Cadmium	0.057
Nickel	2.0

(3) The risk specific concentration for chromium used in equation (5) shall be obtained from Table 2 of § 503.43 or shall be calculated using equation (6).

Table 2 of § 503.43.--Risk Specific Concentration For Chromium

Type of Incinerator	Risk specific concentration (micrograms per cubic meter)
Fluidized bed with wet scrubber	0.65
Fluidized bed with wet scrubber and wet electrostatic precipitator	0.23
Other types with wet scrubber	0.064
Other types with wet scrubber and wet electrostatic precipitator	0.016

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$$RSC = \frac{0.0085}{r} \qquad \text{Eq. (6)}$$

Where:

RSC = risk specific concentration for chromium in micrograms per cubic meter used in equation (5).

r = decimal fraction of the hexavalent chromium concentration in the total chromium concentration measured in the exit gas from the sewage sludge incinerator stack in hundredths.

(4) The dispersion factor (DF) in equation (5) shall be determined from an air dispersion model in accordance with § 503.43(e).

(i) When the sewage sludge incinerator stack height is equal to or less than 65 meters, the actual sewage sludge incinerator stack height shall be used in the air dispersion model to determine the dispersion factor (DF) for equation (5).

(ii) When the sewage sludge incinerator stack height is greater than 65 meters, the creditable stack height shall be determined in accordance with 40 CFR 51.100(ii) and the creditable stack height shall be used in the air dispersion model to determine the dispersion factor (DF) for equation (5).

(5) The control efficiency (CE) for equation (5) shall be determined from a performance test of the sewage sludge incinerator in accordance with § 503.43(e).

(e) Air dispersion modeling and performance testing.

(1) The air dispersion model used to determine the dispersion factor in § 503.43 (c)(2) and (d)(4) shall be appropriate for the geographical, physical, and population characteristics at the sewage sludge incinerator site. The performance test used to determine the control efficiencies in § 503.43 (c)(3) and (d)(5) shall be appropriate for the type of sewage sludge incinerator.

(2) For air dispersion modeling initiated after September 3, 1999, the modeling results shall be submitted to the permitting authority 30 days after completion of the modeling. In addition to the modeling results, the submission shall include a description of the air dispersion model and the values used for the model parameters.

(3) The following procedures, at a minimum, shall apply in conducting performance tests to determine the control efficiencies in § 503.43(c)(3) and (d)(5) after September 3, 1999:

(i) The performance test shall be conducted under representative sewage sludge incinerator conditions at the highest expected sewage sludge feed rate within the design capacity of the sewage sludge incinerator.

(ii) The permitting authority shall be notified at least 30 days prior to any performance test so the permitting authority may have the opportunity to observe the test. The notice shall include a test protocol with incinerator operating conditions and a list of test methods to be used.

(iii) Each performance test shall consist of three separate runs using the applicable test method. The control efficiency for a pollutant shall be the arithmetic mean of the control efficiencies for the pollutant from the three runs.

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(4) The pollutant limits in § 503.43 (c) and (d) of this section shall be submitted to the permitting authority no later than 30 days after completion of the air dispersion modeling and performance test.

(5) Significant changes in geographic or physical characteristics at the incinerator site or in incinerator operating conditions require new air dispersion modeling or performance testing to determine a new dispersion factor or a new control efficiency that will be used to calculate revised pollutant limits.

[64 FR 42572, Aug. 4, 1999]

SOURCE: 58 FR 9387, Feb. 19, 1993, unless otherwise noted.

AUTHORITY: Sections 405 (d) and (e) of the Clean Water Act, as amended by Pub.L. 95–217, Sec. 54(d), 91 Stat. 1591 (33 U.S.C. 1345 (d) and (e)); and Pub.L. 100–4, Title IV, Sec. 406 (a), (b), 101 Stat., 71, 72 (33 U.S.C. 1251 et seq.).

40 C. F. R. § 503.43, 40 CFR § 503.43

Current through October 11, 2012; 77 FR 62132

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USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 342 of 492

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 257, 403 and 503

[FRL–4203–3]

Standards for the Use or Disposal of Sewage Sludge

AGENCY: Environmental Protection Agency.

ACTION: Final rule.

SUMMARY: Under authority of Sections 405(d) and (e) of the Clean Water Act (CWA), as amended (33 U.S.C.A. 1251, *et seq.*), the Environmental Protection Agency (EPA) is promulgating regulations to protect public health and the environment from any reasonably anticipated adverse effects of certain pollutants that may be present in sewage sludge. The regulations establish requirements for the final use and disposal of sewage sludge in three circumstances. First, the regulations establish requirements for sewage sludge when the sludge is applied to the land for a beneficial purpose (including sewage sludge or sewage sludge products that are sold or given away for use in home gardens). Second, the regulations establish standards for sludge when the sludge is disposed on land by placing it on surface disposal sites (including sewage sludge-only landfills). Third, the regulations establish requirements for sewage sludge when incinerated. The standards for each end use and disposal practice consist of general requirements, numerical limits on the pollutant concentrations in sewage sludge, management practices and, in some cases, operational requirements. The final rule also includes monitoring, recordkeeping and reporting requirements.

Standards apply to publicly and privately owned treatment works that generate or treat domestic sewage sludge, as well as to any person who uses or disposes of sewage sludge from such treatment works. The rule requires compliance with these standards as expeditiously as possible but no later than 12 months from the date the rule is published, or within 24 months of publication if construction of new pollution control facilities is required to comply with the regulations. The final rule also includes conforming amendments to 40 CFR parts 257 and 403.

DATES: The effective date is March 22, 1993. Additional comments and data will be accepted until May 20, 1993.

The incorporation by reference of certain publications listed in this regulation is approved by the Director of the Federal Register as of May 20, 1993.

ADDRESSES: This Notice is requesting comments and data the Agency will consider for Round Two part 503 rulemaking. Send written comments and data described in this Notice to Round Two Part 503 Sewage Sludge Use and Disposal Rule; Comment Clerk; Water Docket MC–4101; Environmental Protection Agency; 401 M Street, SW; Washington, DC 20460. Respondents are also requested to submit an original and 3 copies of their written information. Respondents who want receipt of their information acknowledged should include a self-addressed, stamped envelope. All submissions must be postmarked or delivered by hand, no facsimiles (faxes) will be accepted.

A copy of the comments and supporting documents cited in the reference section of this Notice are available for review at EPA's Water Docket; 401 M Street, SW.; Washington, DC 20460. The Docket is located in room L–102. For access to Docket materials, call (202) 260–3027 between 9 a.m. and 3:30 p.m. for an appointment. The EPA public information regulation (40 CFR part 2) provides that a reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: Further information on the part 503 rule may be obtained by writing or calling Dr. Alan Rubin, U.S. Environmental Protection Agency, Office of Water, Sludge Risk Assessment Branch (WH–586), 401 M Street, SW., Washington, DC 20460, (202) 260–1306. Information on the availability of single copies of the final rule, technical support documents, and copies of the data, analyses and models discussed in today's final rule is provided in part XIV of **SUPPLEMENTARY INFORMATION.**

SUPPLEMENTARY INFORMATION: The preamble to this Notice is organized as follows:

Overview

Part I: Generation, Use and Disposal of Sewage Sludge
Part II: Federal and State Requirements
Part III: Selection of Pollutants Considered for Regulation
Part IV: February 6, 1989 Proposed Rule
Part V: November 9, 1990 Notice of Availability of Information and Data, and Anticipated Impacts on Proposed Rule
Part VI: Risk Assessment Methodology
Part VII: Risk Management Approach
Part VIII: Exposure Assessment Methodology and Other Risk Management Issues for Sewage Sludge Use and Disposal Practices for the Final Rule
Part IX: Selection of Pollutants for Regulation
Part X: Aggregate Risk Assessment for the Final Part 503 Regulation
Part XI: Description of the Final 40 CFR Part 503 Regulation
Subpart A: General Provisions
Subpart B: Land Application
Subpart C: Surface Disposal
Subpart D: Pathogens and Vector Attraction
Subpart E: Incineration
Part XII: Implementation of 40 CFR Part 503
Part XIII: Benefits and Cost of the Amendments to Parts 257 and 403 and the Final Part 503 Regulation
Part XIV: Availability of Technical Information on the Final Rule
Part XV: Description of the Amendments to 40 CFR Parts 257 and 403

Overview

With the publication of today's rule, EPA has now met its longstanding obligation to promulgate regulations to establish standards for the use and disposal of sewage sludge. EPA's undertaking required an unprecedented effort to assess the potential for pollutants in sewage sludge to affect public health and the environment through a number of different routes of exposure. As a result, EPA's effort, an enormously complex one, has required it to address issues that affect many of the Agency's other major regulatory responsibilities. For example, evaluation of the risks posed by pollutants that may be present in sludge applied to land required the Agency to consider human exposure through inhalation, direct ingestion of soil fertilized with sewage sludge and through consumption of crops grown on this soil, among others. EPA also assessed the potential risk to human health through contamination of drinking water sources or surface water when sludge is disposed of on the land. EPA also evaluated the potential effects directly on crops, on cattle, on surface water aquatic species and wildlife. EPA also evaluated the effect of emissions from sewage sludge incinerators on human health. Thus, development of the sewage sludge regulation had obvious implications for Agency activities under the Clean Air Act, the Resource Conservation and Recovery Act, the Toxic Substances Control Act, the Comprehensive Environmental Response, Compensation and Liability Act and the Safe Drinking Water Act.

Development of this rule presented the Agency with a number of specific challenges in addition to those associated with coordinating these standards with other Agency programs. Not the least of these was assessing the potential for adverse effects on public health and the environment from pollutants in sludge. This is particularly difficult with respect to non-human health effects, given the limited

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USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 343 of 492

Responding to this mandate, in 1979, EPA adopted criteria that provided guidelines for sewage sludge use and disposal when sewage sludge was applied to land or disposed of in landfills. These criteria were included in regulations co-promulgated under Subtitle D of RCRA and section 405(d) of the CWA and are found in 40 CFR part 257. These regulations contain a number of specific requirements for the management of sewage sludge. To protect the ground water, the regulations prohibit any use or disposal of sewage sludge that causes the concentration of 10 heavy metals and 6 organic chemicals in an underground drinking water source to exceed maximum contaminant levels (MCLs) specified in the criteria. The criteria also included management standards applicable to sewage sludge use or disposal methods to protect surface waters, flood plains, and endangered species. The criteria contain limitations on the concentration of two pollutants (cadmium and PCBs) in sewage sludge when the sewage sludge is applied to the surface of land used for the production of animal feed or food-chain crops. In addition, the requirements in part 257 restrict sewage sludge use and disposal except in compliance with certain measures to control pathogens and disease-carrying rodents, insects, and birds. The regulation provided for different levels of pathogen reduction, depending on whether crops for direct human consumption were grown or animals for human consumption were allowed to graze on the sewage sludge-amended soil. The processes for reducing the levels of pathogens include aerobic and anaerobic digestion, composting, lime stabilization, and heat treatment and drying.

As part of its sludge regulatory program, EPA has prepared a number of documents which provide guidance and direction to local POTWs on the proper management and handling of sewage sludge. EPA has actively encouraged and assisted in the development and implementation of various practices and processes leading to the beneficial use of sewage sludge. In addition to supporting long-term research and demonstration projects, the Agency has also assisted in the development of detailed design guidance for various beneficial methods of disposal and such technologies as digestion, composting, and lime stabilization. The Agency has also supported development of improved de-watering systems, pyrolysis, and other technologies to improve energy recovery from thermal conversion systems, methane recovery from anaerobic digestion systems, and the recovery of various potentially marketable by-products from sewage sludge.

To aid in developing the comprehensive sewage sludge regulations promised in the preamble to the 40 CFR part 257 rule (44 FR 53439, September 13, 1979), EPA created an Intra-Agency Sludge Task Force in 1982. The task force was assigned the following tasks: (1) Conduct a multimedia examination of sewage sludge management, focusing on sewage sludge generated by POTWs; and (2) develop a cohesive Agency policy on sewage sludge management, designed to guide the Agency in implementing sewage sludge regulatory and management programs. Numerous Agency offices and *ad hoc* groups had wrestled with sewage sludge management, but none of these groups had been able to decide how to equitably regulate nationally a complex and variable waste in an environmentally protective and cost-effective manner. Sewage sludge use or disposal involved a myriad of site-specific circumstances, could result in multimedia effects, and depended on proper planning and decision-making at the local level. The Agency lacked experience in developing performance standards for solid waste that would attenuate multimedia environmental effects. Furthermore, at that time, Congress had not provided a compliance mechanism for the regulations.

The task force, which included representatives from all parts of the Agency, recommended that the Agency develop an integrated, comprehensive regulatory structure for sewage sludge use or disposal using the combined authorities of section 405 of the CWA and other laws. This structure would also incorporate existing regulations and, where appropriate, new regulations to complete regulatory coverage where important gaps remained.

While the Agency was working on a regulatory approach consistent with the recommendations of the Task Force, the Natural Resources Defense Council sued the Agency over EPA's pretreatment regulation (40 CFR part 403). In that suit, the U.S. Court of Appeals for the Third Circuit ruled that the pretreatment regulation was invalid in four respects. [*Natural Resources Defense Council* v. *EPA*, 790 F.2d 289 (3rd Cir. 1986)]. Most relevant here is the court's fourth holding:

> We hold that, despite EPA's contention that sludge regulations are in place, EPA's device of incorporating other regulations does not meet the statute's command for a comprehensive framework to regulate the disposal and utilization of sludge and that EPA cannot, in the absence of section 405(d) regulations authorize the issuance of removal credits under section 307(b)(1).

Throughout its lengthy consideration of the amendments to the CWA, some members of Congress expressed concern that, without sewage sludge regulations, industry would continue to discharge toxic pollutants into wastewater for POTWs to treat, making it more difficult for a city to find sewage sludge management alternatives. They believed sludge criteria would stimulate effective pretreatment programs and would encourage recycling and reuse of toxic pollutants by industry. In the Water Quality Act of 1987 (Pub. L. 100–4, February 4, 1987), Congress reaffirmed its directive that EPA develop comprehensive sewage sludge regulations and set forth a schedule for the Agency to do so. The Water Quality Act amended section 405(d) to include requirements that:

> (1) By November 30, 1986, EPA propose regulations establishing numerical limits and acceptable management practices for toxic pollutants that EPA identified as present in sewage sludge in concentrations which, on the basis of information available on their toxicity, persistence, concentration, mobility, or potential for exposure, may adversely affect public health or the environment;
>
> (2) By August 31, 1987, EPA promulgate regulations specifying acceptable management practices and establishing numerical limits for these pollutants that "shall be adequate to protect public health and the environment from any reasonable anticipated adverse effects of each pollutant";
>
> (3) By July 31, 1987, EPA identify and propose regulations for those toxic pollutants not identified in the regulations promulgated August 31, 1987, and promulgate regulations for those toxic pollutants by June 15, 1988; and
>
> (4) From time to time, but no less often than every two years, EPA review the regulations for the purpose of identifying additional toxic pollutants and promulgating regulations.

The amendments specify that compliance with the regulations' requirements must occur not later than 1 year after publication of the regulations, unless the regulations require the construction of new pollution control facilities. In this latter case, compliance must occur no later than 2 years from the date of publication of the regulations.

Section 405(d)(5) also provides that nothing in the section is intended to waive more stringent requirements in the CWA or in any other law. This means that States and local communities remain free to impose more stringent requirements than those

HeinOnline -- 58 Fed. Reg. 9261 1993

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 344 of 492

included in today's rule. In addition, as described later in the preamble, where EPA has established requirements applicable to sewage sludge under other statutes, compliance with regulations established under those statutes also constitutes compliance with part 503.

Section 405(e) was further amended to read as follows:

> The determination of the manner of disposal for use of sludge is a local determination, except that it shall be unlawful for any person to dispose of sludge from a publicly owned treatment works or any other treatment works treating domestic sewage for any use for which regulations have been established pursuant to subsection (d) of this section, except in accordance with such regulations.

The implications of this section are discussed later in the preamble.

CERCLA Liability

Questions have been raised about conditions under which sewage sludge disposed at a Superfund site might give rise to liability under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).

Section 107 of CERCLA generally imposes liability for cleanup costs on, among others, persons who own or operate facilities at which hazardous substances are disposed. Section 107 liability extends to the costs of cleanup necessitated by a release or threat of release of a hazardous substance. However, section 101(22) defines "release" to exclude the "normal application of fertilizer."

If the placement of sludge on land were considered to be "the normal application of fertilizer," that placement could not give rise to liability under CERCLA. Today's rule, as previously noted, establishes standards for sewage sludge when applied to the land for a beneficial purpose (i.e., as a fertilizer substitute or soil conditioner). Sludge placed on the land for such beneficial purpose and applied in compliance with the requirements for land application of sewage sludge provided in §§ 503.13(b) (2) and (4), § 503.14 and § 503.15 (where applicable) of the final rule today, and in accordance with accepted agricultural practices using appropriate application rates, which constitutes the normal application of fertilizer, does not constitute a "release."

Under CERCLA, protection from liability is also provided when there is a release of a CERCLA hazardous substance and the release occurs pursuant to Federal authorization. Thus under CERCLA, in defined circumstances, the application of sewage sludge to land in compliance with a permit required by section 405 of the Clean Water Act is a Federally permitted release as defined in CERCLA. Recovery for response costs or damages under section 107 of CERCLA is not authorized for Federally permitted releases. The Act defines Federally permitted releases as, among others, discharges in compliance with an NPDES permit under section 402 of the Clean Water Act. (See, *Idaho* v. *Hanna Mining Co.* 699 F. Supp. 827 (D. Idaho 1987) (State cannot recover under CERCLA for damages resulting from releases authorized by NPDES permit) *aff'd*, 882 F.2d 392 (9th Cir. 1989)). Consequently, releases of hazardous substances from the land application of sewage sludge authorized under and in compliance with an NPDES permit would constitute a Federally permitted release.

Other Federal Requirements

Traditionally, the Agency has used the standards, definitions, and approaches developed under other Federal public health and environmental programs in responding to the broad mandate of section 405(d) when they are consistent with the goals and objectives of the CWA. The use of other Federal standards is desirable in order to minimize duplicative, overlapping, and conflicting policies and programs. Further, as discussed above, section 405(d)(5) provides that nothing in section 405(d) is intended to waive more stringent requirements established under other statutes. Therefore, as previously indicated, in developing today's rule EPA based pollutant limits on human health or environmental criteria established under other statutory authorities.

Under section 304(a) of the CWA, the Agency publishes Water Quality Criteria. For the purposes of part 503, these criteria are used in determining whether a pollutant limit for a particular use or disposal practice would not exceed a freshwater quality criterion, should the pollutant reach the surface water. When the concern is to protect the drinking water supplies, the basis of the pollutant limits is the MCLs promulgated under authority of the Safe Drinking Water Act.

The NAAQS for lead, promulgated under authority of section 109 of the Clean Air Act, was used in developing the pollutant limit for lead when sewage sludge is incinerated. The National Emission Standards for Hazardous Air Pollutants (NESHAPs) for beryllium and mercury, used in the part 503 proposal to develop the numerical pollutant limits for these pollutants when sewage sludge is incinerated, have been omitted from the final part 503 regulations because these pollutants are already regulated under the authority of section 112 of the Clean Air Act and found at 40 CFR part 61. Other applicable regulatory requirements for the incineration of sewage sludge include the New Source Performance Standards for Sewage Sludge Incinerators promulgated under section 111 of the Clean Air Act and found at 40 CFR part 60, subpart O. Owners or operators of sewage sludge incinerators also must ensure that their operations, including the location of new incinerators, conform to state implementation plans approved under the regulations authorized by section 110 of the Clean Air Act and are found at 40 CFR parts 50–51.

State Requirements

The information on existing State requirements summarized below was gathered as part of EPA's effort in developing guidance for writing sewage sludge interim permits prior to promulgation of the part 503 standards. Under section 510 of the CWA, States, political subdivisions of States and interstate agencies retain the authority to adopt or enforce more stringent standards than those provided in today's part 503 regulations.

At present, 42 States have regulations or guidelines covering the land application of sewage sludge which set either a maximum allowable concentration or maximum pollutant loading rate for at least one pollutant. Paralleling the requirements in 40 CFR part 257, 41 States have set restrictions on the growing of crops on soil to which sludge has been applied (e.g., human food chain crops cannot be grown on sludge-amended soil until 18 months after the application of the sewage sludge). In addition, 41 States have established management practices for the land application of sewage sludge.

The give-away or sale of composted sludge is regulated under State land application requirements. Eleven States have set numerical limits on the concentration of pollutants in sewage sludge that is distributed and marketed and 22 States have established management practices regulating this use.

Many States enforce landfilling restrictions for nonhazardous sludge that follow the requirements in 40 CFR part 257. While States have not set maximum pollutant concentrations for sewage sludge that is landfilled, 31 States do have some site restrictions or other management practices governing landfills.

HeinOnline -- 58 Fed. Reg. 9262 1993

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 345 of 492

Many States regulate the emissions of sewage sludge incinerators. State implementation plans under the Clean Air Act limit emissions of various pollutants subject to NAAQS or NESHAPs. Twenty States have established opacity limits as well as emission limits for beryllium, mercury, particulates, sulfur dioxide, and carbon monoxide. No State has established a limitation on lead emissions from sewage sludge incinerators. Twenty-nine States have regulations or guidelines governing operation of incinerators, including disposal of ash.

In one State, the development and enforcement of controls on all methods of sewage sludge use and disposal are delegated entirely to local agencies, as is the issuance of permits. In other States, local as well as State controls are imposed on the use and disposal of sewage sludge.

Part III: Selection of Pollutants Considered for Regulation

This part describes how the Agency selected the initial list of pollutants for which numerical limits are promulgated in today's rule and data bases used to collect information about the pollutants. Additional information may be found in "The Record of Proceedings on the OWRS Municipal Sewage Sludge Committees" and "Summary of the Environmental Profiles" (Reference Nos. 62 and 67).

Initial List of Pollutants

In the spring of 1984, EPA enlisted the assistance of Federal, State academic, and private sector experts to determine which pollutants likely to be found in sewage sludge should be examined closely as possible candidates for numerical limits. These experts screened a list of approximately 200 pollutants in sewage sludge that, if disposed of improperly, could cause adverse human health or environmental effects. The experts were requested to revise the list, adding or deleting pollutants. The test for inclusion or exclusion was the potential risk to human health and the environment when sewage sludge containing a particular pollutant was applied to the land, placed in a landfill, or incinerated. The Agency also requested that the experts identify the most likely route which a pollutant could travel to reach target organisms, whether human, plant, or wild or domestic animals. The experts attending the meetings recommended that the Agency gather additional environmental information on approximately 50 pollutants. These pollutants are listed in Table III–1.

TABLE III–1.—POLLUTANTS SELECTED FOR ENVIRONMENTAL PROFILES/HAZARDS INDICES

Pollutants	Land application	Landfill	Incineration
Aldrin/Dieldrin	X		X
Arsenic	X	X	X
Benzene		X	X
Benzidine			
Benzo(a)anthracene	X		X
Benzo(a)pyrene	X	X	X
Beryllium			X
Bis(2-ethylhexyl) phthalate	X	X	X
Cadmium	X	X	X
Carbon tetrachloride			X
Chlordane	X	X	X
Chlorinated dibenzodioxins			X
Chlorinated dibenzofurans			X
Chloroform			X
Chromium	X	X	X
Cobalt	X	X	
Copper	X	X	X
Cyanide	X	X	
DDT/DDD/DDE	X	X	X
3,3'-Dichlorobenzidine			
2,4-Dichlorophenoxy-acetic acid		X	X
Dimethylnitrosamine	X		
Fluoride	X		
Heptachlor	X		X
Hexachlorobenzene	X		
Hexachlorobutadiene	X		
Iron	X		
Lead	X	X	X
Lindane	X	X	X
Malathion		X	X
Mercury	X	X	X
Methylene bis(2-chloroaniline)	X		
Methylene chloride	X	X	X
Methylethyl ketone		X	
Molybdenum	X	X	
Nickel	X	X	X
PCBs	X	X	X
Pentachlorophenol	X		X
Phenanthrene		X	X
Phenol			X
Selenium	X		
Tetrachloroethylene			X
Toxaphene	X	X	X
Trichloroethylene	X		X
Trichlorophenol			X
Tricresyl phosphate	X		
Vinyl chloride			X
Zinc	X	X	X

HeinOnline -- 58 Fed. Reg. 9263 1993

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 346 of 492

(2) Variability of real-world sludge application practices;

(3) Bioavailability of sludge constituents to both plants and animals under different environmental conditions;

(4) Ecological effects of organic and inorganic constituents as well as pathogens, including effects to wildlife and non-cultivated crops and impacts on unmanaged plant and animal communities, endpoints chosen in the risk assessment for phytotoxicity and alternative endpoints;

(5) Confirmation of the distribution and variability in the concentration of constituents and binding capacity of sludge matrices; and

(6) Long-term temporal changes; for example, changes in binding capacity as sludge ages and sensitivity of the results to changes in site condition such as degradation of the sludge matrix, pH changes, and land-use changes.

EPA will develop a plan for the study and submit it to external experts for comment and refinement. The final plan including study design will be available for public comment at the time that the Round Two regulation is proposed. The Agency is seeking comment at this time on the priority of the various elements of the study and suggestions for alternative cost-effective approaches to address the uncertainties in the human health and ecological risk assessment. This information will be used in development of the study design.

As the Agency develops its ecological risk assessment methodology and as it obtains results from the monitoring study, the risk assessment decisions made in this final rule may need revision. The Agency will consider necessary revisions when the results of the monitoring study are available.

The Agency will also further evaluate the potential risks and benefits of nutrients contained in sludge in the Round Two sludge regulations. Although sludge, like other fertilizers applied to agricultural land, provides valuable nutrients needed for crop growth, over application can degrade ground and surface water quality. An extensive evaluation of the effects from nutrients in sludge was not performed in Round One. Because sewage sludge has relatively low nutrient content as compared to other unregulated commercial fertilizers, EPA did not consider nutrients a problem if sewage sludge is applied at agronomic rates.

Excessive loadings of nutrients from the use of fertilizers, both organic and inorganic, pose significant ecological risks by stimulating the over-enrichment of estuaries, lakes, reservoirs, bays, and slower streams in a process known as eutrophication. Eutrophication occurs when excess nutrients stimulate the growth of algae and alter the biological composition of ecological communities. In general, nitrogen is the limiting factor for plant growth in marine ecosystems and phosphorus is the limiting factor in fresh water. In some estuarine systems, both nitrogen and phosphorus can limit plant growth.

Nitrogen in the form of nitrate is highly mobile and moves with water. If nitrate finds its way to ground water and then to drinking water wells, it may pose a human health risk. EPA has set a drinking water standard of 10 mg/l to protect against the most sensitive health effect endpoint, methemoglobinemia (blue baby syndrome) in infants.

The Agency will consider sludge management practices in the context of risks and benefits posed by nutrients in the Round Two regulations. In addition, representatives of the U.S. Department of Agriculture have raised concerns about the standard for cadmium contained in these regulations. EPA believes, based on its current analyses, that the regulations promulgated today satisfy the requirements of Section 405 of the Clean Water Act. However, EPA welcomes additional data and analyses related to this particular sludge standard and will consider any such additional information received by the Agency within 90 days from the publication of today's rule. Should significant additional data or analyses be presented to the Agency demonstrating that a different standard is warranted, the Agency will expeditiously modify this rule.

Part VII: Risk Management Approach

Agency Risk Management Approach

Armed with the risk characterization information, the Agency can determine if a "significant" or "unreasonable" risk exists, what to do about it or what controls are necessary, and how to communicate the risk to the public and regulated community. Implicit in this analysis is that the simple identification of risk is not necessarily sufficient to justify action. In addition, non-risk factors such as the availability and effectiveness of controls, the existence of alternatives, and any benefits that would be lost or gained as a result of controls must be considered by the Agency in the process of reaching a decision. In some cases, the weight of the risk and benefits will be such that the benefits outweigh the risks. In such a case, the Agency's risk management decision may be to take no regulatory action. In other cases, risks relative to benefits are such that the reasonable action is to reduce the risk or control the environmental effect.

This process is interactive and affects earlier components in the risk assessment. Under each exposure scenario, the Agency identifies a range of control strategies and regulatory requirements that usually reduce exposure so that the risk or identified effect is put back into balance with the benefits. Using the information provided in the risk management step, the Agency can select the appropriate control strategy and means for communicating it to the public and regulated community.

Alternative Regulatory Approaches Considered in Developing the Final Rule

Introduction

This part of the preamble discusses alternatives the Agency considered in developing today's part 503 rule. EPA solicited public comments on these proposed approaches and sought suggestions for other appropriate approaches that the Agency could consider in developing its risk assessment methodology used to establish standards for the use and disposal of sewage sludge. Over the years, EPA has developed different regulatory approaches, depending on the legal requirements of a particular statute, surrounding issues, uncertainties, and information bases. Other EPA statutes covering the same pollutants or activities have very different legal requirements from section 405(d) of the CWA. The following discussion examines how different statutes mandate how EPA establishes standards under different regulatory regimes.

Title III of the 1990 Clean Air Act Amendments establishes a program to reduce emissions of hazardous air pollutants from stationary sources. Title III requires EPA to develop standards for sources of hazardous air emissions based on maximum achievable control technology for controlling these emissions. Section 112 includes a list of nearly 200 chemicals and chemical classes for which National Emission Standards for Hazardous Air Pollutants may be set. The standards promulgated under section 112 require the maximum achievable reduction in emissions, considering cost and other relevant factors. Categories and subcategories of sources are subject to regulation according to a specified schedule, with the first set of sources regulated by 1992.

EPA proposed listing sewage sludge incinerators as a category of major

HeinOnline -- 58 Fed. Reg. 9276 1993

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 347 of 492

sources as required under title III of the 1990 Clean Air Act Amendments (54 FR 28548, June 21, 1991). At this time, the Administrator has decided that listing this category of sources under the Clean Air Act is required by the legislation. Regulatory review of this category will take into account the final requirements being promulgated today under part 503. The regulatory review of this category is not expected to take place for seven years because comprehensive controls on this category are in the incineration subpart of the part 503 rule being promulgated today.

The EPA may promulgate additional standards, if needed, to protect health with an ample margin of safety or to prevent adverse environmental effects. Unless new legislation is enacted, health-based standards will be mandatory for categories of sources that pose an estimated cancer risk of greater than 1×10^{-6} to the most exposed individual. The schedule for these "residual risk" standards is nine years after promulgation of control technology standards for the first set of source categories and eight years post-promulgation for the remaining source categories.

Under the Safe Drinking Water Act (SDWA), the Agency first defines a goal to limit the concentration of the pollutant in drinking water (maximum contaminant level, goal—MCLG; for carcinogens, the concentration goal is zero). After setting a goal, the Agency sets an enforceable standard (maximum contaminant level) based on feasibility. Under the SDWA, the enforceable standard may not necessarily achieve the goal set for the pollutant, but it is established at a level that is safe for human health. The carcinogenic risk levels for drinking water MCLs generally range from 1×10^{-6} to 1×10^{-4}

The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA) explicitly provide for balancing health and costs in decisionmaking. The carcinogenic risk levels established under FIFRA range from 1×10^{-6} to 1×10^{-4}, depending on the type of exposure involved. Applier exposure is generally in the range of 1×10^{-4} and dietary exposure is generally in the range of 1×10^{-6}. The regulatory limits under TSCA are driven by balancing economic analyses and exposure analyses, with the exposure analyses also considering adverse health effects other than carcinogenicity.

Under the Resource Conservation and Recovery Act (RCRA), Subtitle D (non-hazardous wastes), the Agency sets standards to protect human health and the environment based on the reasonable probability that municipal solid waste landfills will cause adverse effects. The standards are established considering the "practical capability" of the facilities. The Agency is requiring that States establish ground water protection standard remedies for carcinogens in the range of 1×10^{-6} to 1×10^{-4} (see, 56 *FR* 50978, October 9, 1991).

However, Subtitle C of RCRA (hazardous wastes) contains no provision to consider costs or the practical capability of a facility to meet the standards. The standards developed by the Agency under RCRA Subtitle C are necessary to protect human health and the environment. The Agency has standards that prohibit hazardous waste incinerator emissions for metals from exceeding a summed carcinogenic risk level of 1×10^{-5}.

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) directs the Agency to set standards for cleanup by considering the relative degree of risk to human health and the environment. Under CERCLA, the Agency has set standards based on carcinogenic risk levels of 1×10^{-7} to 1×10^{-4}, with 1×10^{-6} as the departure point for the analysis.

As shown, each statute is unique. Therefore, the regulatory approach and limits developed under one statute may not be appropriate for those developed under another statute. Before comparing regulatory requirements, the legal requirements of the authorizing statute must be examined.

In developing a regulatory approach, one of the principles guiding EPA is to establish reasonable standards. Section 405(d)(2)(D) of the CWA requires the Agency to establish management practices and numerical limits that are "adequate to protect public health and the environment from any reasonably anticipated adverse effects of each pollutant." EPA used exposure assessment models to derive these numerical pollutant limits. EPA determined that the exposure assessment assumptions used in its models protect individuals from events that are likely to occur and meets the statutory standard to protect public health and the environment from "reasonably anticipated adverse effects of a pollutant."

Selecting a Regulatory Approach for Part 503

In developing a regulatory approach for establishing the management practices and numerical limits (standards) that would safeguard public health and the environment, the Agency examined the use or disposal practices and the probability that individuals would be exposed to pollutants from these practices. EPA identified the type of the risks involved (e.g., breathing air with higher levels of pollutants, drinking water with pollutant levels exceeding the MCLs for drinking water, and others). It also examined the possibility of special populations at greater risk (e.g., small children playing in gardens where sewage sludge products had been applied or the effect of lead on adult males). The Agency also examined whether individuals voluntarily incurred the risks. For example, risks associated with breathing more contaminated air by individuals living in close proximity to an incinerator are involuntarily incurred and, therefore, more unacceptable than risks associated with using a properly labeled sewage sludge product in a garden. Finally, before developing alternative approaches, EPA used exposure assessment models to project the effect on an individual receiving a maximum dose throughout an average lifespan of 70 years. Aggregate effects analyses were used to project the incidence of adverse health effects from sewage sludge use or disposal on the population as a whole (i.e., the resulting number of cancer cases, carcinogenic risk, number of people exposed to lead at levels producing adverse health effects, and the number of people exposed to concentrations of non-carcinogenic pollutants above a reference dose—RfD).

In considering a regulatory approach, in the proposal EPA primarily focused on two types of risks—risks to individuals receiving the maximum dose (most exposed individual, plant or animal—MEI) and risks to the population as a whole (aggregate risk). The Agency considered four regulatory approaches for the use and disposal of sewage sludge. Each of the approaches places greater emphasis on reducing an individual or other organism's exposure to a pollutant. However, the Agency examined both the individual and aggregate effect of each alternative to balance the uncertainties in the analyses. The data available resulted in greater emphasis being placed on public health rather than environmental effects. However, where environmental effects could be identified, even qualitatively, they were considered in the determination of what constituted "adequate" protection of public health and the environment.

Opinions are divided concerning the emphasis that should be placed on individual or aggregate risk. There are some who maintain that individual cancer risk is the most, or the only,

HeinOnline -- 58 Fed. Reg. 9277 1993

Region X office listed below. Copies of the requests for delegation and other supporting documentation are available for public inspection at the following location: U.S. Environmental Protection Agency, Region X, Office of Air Quality (OAQ–107), 1200 Sixth Avenue, Seattle, WA, 98101.

FOR FURTHER INFORMATION CONTACT: Andrea Wullenweber, US EPA, Region 10 (OAQ–107), 1200 Sixth Avenue, Seattle, WA, 98101, (206) 553–8760.

SUPPLEMENTARY INFORMATION: This document concerns delegation of unchanged NESHAPs to the Northwest Air Pollution Authority, the Puget Sound Air Pollution Control Agency, and the Southwest Air Pollution Control Agency. For further information, please see the information provided in the direct final action which is located in the Rules section of this **Federal Register**.

Authority: 42 U.S.C. 7401–7671q.

Dated: October 28, 1998.

Chuck Clarke,

Regional Administrator, Region X.

[FR Doc. 98–31241 Filed 11–30–98; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[AD–FRL–6190–5]

RIN 2060–AF26

National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of proposed rulemaking; notice of public hearing.

SUMMARY: A proposed rule for the publicly owned treatment works (POTW) source category is required to implement section 112 of the Clean Air Act as amended (Act) and reflects the Administrator's determination that POTW sources emit hazardous air pollutants (HAP) identified on the EPA's amended list of 188 HAP. The primary HAP emitted by these sources include xylenes, methylene chloride, toluene, ethyl benzene, chloroform, tetrachloroethylene, benzene, and naphthalene.

The emission standards that the EPA is proposing with today's notice would require control for HAP emissions from each new or reconstructed POTW treatment plant which is a major source of HAP. The standards would also require each existing and new POTW treatment plant that treats specific industrial waste streams from an industrial user, for the purpose of allowing that industrial user to comply with another National Emission Standard for Hazardous Air Pollutants (NESHAP), to meet the treatment and control requirements of the relevant NESHAP. The EPA is not proposing any standard for publicly owned sewage and wastewater collection systems at this time, because sufficient information is not available at present to determine the amount of HAP emissions from such systems or to evaluate the practicality of controlling such emissions.

Although section 112(e)(5) of the Act required the EPA to promulgate a maximum achievable control technology (MACT) standard for POTW by November 15, 1995, the EPA was unable to collect and evaluate the necessary information to meet that deadline. Under the separate schedule for promulgation of MACT standards established by the EPA pursuant to sections 112(e)(1) and (e)(3), the EPA was required to promulgate a MACT standard for POTW by November 15, 1997. However, because the EPA was unable to meet that deadline as well, the MACT "hammer" date may eventually apply to the POTW source category. Under section 112(j)(2), the MACT "hammer" date is the date by which affected facilities will be required to apply for a case-by-case MACT emission limitation if the EPA has not promulgated a generally applicable MACT standard. This date is May 15, 1999.

DATES: Comments. Comments must be received on or before January 15, 1999.

Public Hearing. A public hearing will be held, if requested, to provide interested persons an opportunity for oral presentation of data, views, or arguments concerning the proposed standards for POTW sources. If anyone contacts the EPA requesting to speak at a public hearing by December 16, 1998, a public hearing will be held on December 31, 1998.

ADDRESSES: *Comments.* Comments should be submitted (in duplicate, if possible) to: Air and Radiation Docket and Information Center (6102), (LE–131), Attention, Docket No. A–96–46, U.S. Environmental Protection Agency, 401 M Street, SW, Washington, DC 20460. The EPA requests that a separate copy of comments also be sent to Mr. Robert B. Lucas (see **FOR FURTHER INFORMATION CONTACT** for address). Comments and data may also be submitted electronically by following the instructions below. No confidential business information (CBI) should be submitted through e-mail.

Electronic comments can be sent directly to the EPA at: A-and-R-Docket@epamail.epa.gov. Electronic comments must be submitted as an ASCII file avoiding the use of special characters and any form of encryption. Comments and data will also be accepted on disk in WordPerfect in 5.1 file format or ASCII file format. All comments and data submitted in electronic form must note the docket number A–96–46. Electronic comments on this proposed rule may be filed online at many Federal Depository Libraries.

Public Hearing: If requested, the public hearing will be held in Research Triangle Park, North Carolina, beginning at 9:30 a.m. Persons interested in attending a public hearing should contact JoLynn Collins, (919) 541–5671, Waste and Chemical Processes Group (MD-13) to determine whether a hearing will be held and to obtain information on the exact location.

Request to Speak at a Hearing. Persons wishing to make an oral presentation at a hearing must notify Jo Lynn Collins, Waste and Chemical Processes Group (MD–13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone (919) 541–5671.

Docket. The official record for this rulemaking will be compiled under docket number A–96–46, (including comments and data submitted electronically as described above). All materials in the docket (including a printed version of each electronic comment), excluding any portion of any materials claimed by the submitter as confidential business information, will be available for inspection and copying from 8 a.m. to 4 p.m., Monday through Friday, excluding legal holidays. The public docket for this rulemaking is located at the address in **ADDRESSES** at the beginning of this document. A reasonable fee may be charged for copying.

FOR FURTHER INFORMATION CONTACT: For information concerning the proposed standards, contact Mr. Robert B. Lucas, Waste and Chemical Processes Group, Emission Standards Division (MD–13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, telephone (919) 541–0884; facsimile (919) 541–0246; e-mail lucas.bob@epamail.epa.gov.

SUPPLEMENTARY INFORMATION:

Regulated Entities. Entities potentially regulated by this action are publicly owned treatment works. Regulated categories and entities include:

US EPA ARCHIVE DOCUMENT

HeinOnline -- 63 Fed. Reg. 66084 1998

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 349 of 492

Category	Examples of regulated entities
Industry	Not affected.
Federal government.	Sewerage Systems (SIC 4952), Sewage Treatment Facilities (NAICS 22132).
State/local/tribal government.	Sewerage Systems (SIC 4952), Sewage Treatment Facilities (NAICS 22132), Municipal Wastewater Treatment Facilities, Publicly Owned Treatment Works.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that the Agency is now aware could potentially be regulated by this action. Other types of entities not listed in the table also could be regulated. To determine whether your facility or company is regulated by this action, you should carefully examine the applicability criteria in section III.A of this document and in § 63.1580 of the proposed rule. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Internet. The text of today's notice also is available on the EPA's web site on the Internet under recently signed rules at the following address: http://www.epa.gov/ttn/oarpg/rules.html. The EPA's Office of Air and Radiation (OAR) homepage on the Internet also contains a wide range of information on the air toxics program and many other air pollution programs and issues. The OAR's homepage address is: http://www.epa.gov/oar/.

Electronic Access and Filing Addresses. The official record for this rulemaking, as well as the public version, has been established for this rulemaking under Docket No. A–96–46 (including comments and data submitted electronically). A public version of this record, including printed, paper versions of electronic comments, which does not include any information claimed as confidential business information (CBI), is available for inspection from 8 a.m. to 5:30 p.m., Monday through Friday, excluding legal holidays. The official rulemaking record is located at the address in **ADDRESSES** at the beginning of this document.

Electronic comments can be sent directly to the EPA's Air and Radiation Docket and Information Center at: "A-and-R-Docket@epamail.epa.gov." Electronic comments must be submitted as an ASCII file avoiding the use of special characters and any form of encryption. Comments and data will also be accepted on disks in WordPerfect in 5.1 file format or ASCII file format. All comments and data in electronic form must be identified by the docket number (A–96–46). No CBI should be submitted through electronic mail. Electronic comments on this proposed rule may be filed online at many Federal Depository Libraries. This proposal is available on the technology transfer network (TTN) on the EPA's electronic bulletin boards. The TTN provides information and technology exchange in various areas of air emissions control. The service is free and may be accessed via the TTN web site at http://www.epa.gov/ttn/oarpg.

The following outline is provided to aid in reading the preamble to today's proposal.

I. Background
A. Requirements of Section 112 of the Clean Air Act
B. Source Category Description
C. Overview of HAP Emissions from POTW
D. Stakeholder and Public Participation
II. Description of HAP Sources and Controls
A. Summary of Available Information
B. Hazardous Air Pollutant Types
C. Hazardous Air Pollutant Sources
D. Estimated Hazardous Air Pollutant Emissions
E. Hazardous Air Pollutant Control Options
III. Proposed Approach for Source Category Subcategorization
IV. Determination of MACT
A. MACT for Existing Sources in the Non-Industrial POTW Treatment Plants Subcategory
B. MACT for New Sources in the Non-Industrial POTW Treatment Plants Subcategory
C. MACT for Existing Sources in the Industrial POTW Treatment Plants Subcategory
D. MACT for New Sources in the Industrial POTW Treatment Plants Subcategory
V. Solicitation of Comments
A. Pretreatment
B. Wastewater Collection Systems
VI. Administrative Requirements
A. Docket
B. Paperwork Reduction Act
C. Executive Order 12866
D. Regulatory Flexibility Act
E. Unfunded Mandates
F. Executive Order 13045
G. National Technology Transfer and Advancement Act
H. Executive Order 12875: Enhancing the Intergovernmental Partnership
I. Executive Order 13084: Consultation and coordination with Indian Tribal Governments

I. Background

A. Requirements of Section 112 of the Clean Air Act

Section 112 of the Act addresses stationary sources of HAP. Section 112(b) of the Act, as amended, lists 188 chemicals, compounds, or groups of chemicals as HAP. The EPA is directed by section 112 to regulate the emissions of HAP from stationary sources by establishing national emission standards.

The statute requires the EPA to establish standards to reflect the maximum degree of reduction in HAP emissions through application of MACT to major sources. Section 112(a)(1) of the Act defines a major source as:

> * * * any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential-to-emit, considering controls, in the aggregate 10 tons per year (tpy) or more of any HAP or 25 tpy or more of any combination of HAP.

Section 112(d)(3) prescribes a minimum level of control for major sources of HAP, referred to as the MACT floor.

Section 112(e)(5) of the Act required the EPA to promulgate a MACT standard for publicly owned treatment works by November 15, 1995. The EPA was unable to gather and evaluate the necessary information to meet that deadline. Another deadline for promulgation of the POTW MACT standard of November 15, 1997, was established separately by the EPA when it included the POTW standard in the seven-year group in the schedule for MACT standards established pursuant to sections 112 (e)(1) and (e)(3). Under section 112(j)(2) (the "MACT hammer"), if the EPA fails to promulgate a POTW MACT standard by November 15, 1997, major sources in the POTW category would be required to submit within 18 months thereafter (by May 15, 1999) an application for a permit which would impose MACT requirements on a case-by-case basis. Although the EPA was unable to meet the deadline for a POTW standard established by section 112(e)(5), the EPA intends to promulgate a final MACT standard applicable to this source category before any obligation for facilities to file an application under section 112(j)(2) can arise.

B. Source Category Description

The EPA's initial list of categories of major sources of HAP emissions, established under section 112(c)(1) of the Act, included POTW. This list was published on July 16, 1992 (57 FR 31576).

Section 112(e)(5) of the Act defines POTW by referring to the definition of treatment works in title II of the Federal Water Pollution Control Act, commonly referred to as the Clean Water Act. As set forth in section 212(2), 33 U.S.C. 1292(2), treatment works include the wastewater treatment units themselves, as well as intercepting sewers, outfall sewers, sewage collection systems,

HeinOnline -- 63 Fed. Reg. 66085 1998

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 350 of 492

pumping, power, and other equipment. Thus, any of these types of facilities which are publicly owned may be a POTW. The wastewater collected, transmitted, and treated by such POTW may be generated by industrial, commercial, and/or domestic sources.

C. Overview of HAP Emissions from POTW

Some POTW are estimated by the EPA to be major sources of HAP emissions. The primary HAP constituents currently associated with POTW sources include xylenes, methylene chloride, toluene, ethyl benzene, chloroform, tetrachloroethylene, benzene, and naphthalene. There are potential adverse health impacts associated with exposure to these HAP. For example, exposure to methylene chloride adversely affects the central nervous system and results in increased liver and lung cancer in animals, and benzene is a known human carcinogen.

The HAP emitted by POTW originate in wastewater streams discharged by industrial, commercial, and other facilities to the POTW for treatment. Hazardous air pollutants present in wastewater entering POTW treatment plants can biodegrade, adhere to sewage sludge, volatilize to the air, or pass through (remain in the discharge) to receiving waters. Within the POTW category, wastewater treatment units are the most likely source for HAP emissions, but wastewater collection systems (including transport systems) may also have emissions.

The EPA has assessed available information regarding HAP emissions from POTW and currently-used add-on controls. The information supports nationwide requirements for treatment and controls at a subcategory of POTW treatment plants. This subcategory includes POTW treatment plants that treat specific industrial waste streams for the purpose of allowing an industrial user to comply with another NESHAP. The information also supports nationwide requirements for add-on controls at new or reconstructed POTW treatment plants. For detailed information on these requirements see section IV. (Determination of MACT) of today's proposal.

Today's proposal addresses only the wastewater treatment portion of publicly owned treatment works. At this time, insufficient information is available for the EPA to determine whether publicly owned wastewater collection systems are themselves major sources of HAP and whether HAP emissions from such systems can be effectively controlled. The EPA is asking the public for additional information on emissions and controls for wastewater collection systems, as well as the use of pretreatment to reduce emissions (see section V.A., Pretreatment, of today's proposal). The EPA is also asking if today's proposal makes clear the difference between POTW treatment plants and publicly owned treatment works. All information collected as a result of this solicitation will be included in the docket.

D. Stakeholder and Public Participation

As prescribed in section 112(n)(3) of the Act:

> The Administrator may conduct, in cooperation with the owners and operators of publicly owned treatment works, studies to characterize emissions of hazardous air pollutants emitted by such facilities, to identify industrial, commercial and residential discharges that contribute to such emissions and to demonstrate control measures for such emissions. When promulgating any standard under this section applicable to publicly owned treatment works, the Administrator may provide for control measures that include pretreatment of discharges causing emissions of hazardous air pollutants and process or product substitutions or limitations that may be effective in reducing such emissions.

During the development of the proposed standards, representatives of POTW and sanitation districts were extensively consulted. The EPA has been working with a trade association known as the Association of Metropolitan Sewerage Agencies (AMSA) for approximately six years. During that time, the AMSA members assisted the EPA in identifying, gathering, and assessing available information regarding HAP emissions from POTW, arranging site visits, and providing technical review. In addition, State and local agencies assisted in data gathering and technical review. A database comprising information supplied by the AMSA was used in the evaluation of HAP emissions and emissions control for POTW. Estimates of organic HAP emissions from model sources were developed by the EPA based on information supplied by the AMSA, including most of the modeling inputs used for the EPA WATER8 emissions estimation model (see section II.D., Estimated Hazardous Air Pollutant Emissions, of today's proposal).

The AMSA is an organization that comprises 150 member agencies representing approximately 450 POTW sources that each treat 37.9 thousand cubic meters per day (cmpd) (10 million gallons per day (MGD)) or more. Of the 193 largest cities in the nation, 110 (approximately 60 percent) are represented. The POTW sources associated with these 110 cities treat approximately 49.2 million cmpd (13,000 MGD), and serve approximately 100 million people (out of the 175 million people in the nation that have sewer service).

II. Description of HAP Sources and Controls

A. Summary of Available Information

There are approximately 15,600 publicly owned treatment works nationwide that receive and treat approximately 113.6 million cmpd (30,000 MGD) of domestic, commercial, and industrial wastewater. These POTW range in size from less than 0.4 thousand cmpd to greater than 1.9 million cmpd (less than 0.1 to greater than 500 MGD). However, the majority of these facilities (approximately 80%) treat less than 3.8 thousand cmpd (less than one MGD).

The EPA has reviewed the general literature, conducted site visits, and conducted studies resulting in the development of model wastewater treatment facilities and model waste streams for this source category. In addition, the EPA has interacted with State and local agencies. The most comprehensive information obtained to date has been supplied by the AMSA, as a result of surveys of their members.

The AMSA conducted two separate surveys of their members within the last four years. During 1992–1993, the AMSA surveyed approximately 200 member agencies with well over 300 POTW under their jurisdiction. This survey requested facilities to provide data on liquid phase compounds that could possibly volatilize in the treatment process. In 1994, the AMSA conducted a national survey of over 100 member agencies representing many of the largest POTW in the nation. This survey requested influent monitoring data, with corresponding flow rate through the facilities for the sampling day(s). This data was collected for calendar years 1993 and 1994 for 108 compounds identified by the EPA as potentially being present in wastewater. The information provided to the EPA as a result of these two surveys has been reviewed and analyzed, and is the primary basis for the Agency's conclusions thus far regarding HAP emissions from POTW treatment plants and emission controls.

B. Hazardous Air Pollutant Types

The primary HAP associated with POTW sources include xylenes, methylene chloride, toluene, ethyl benzene, chloroform, tetrachloroethylene, benzene, and naphthalene. These primary HAP have

HeinOnline -- 63 Fed. Reg. 66086 1998

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 351 of 492

the highest concentrations in the influent waste stream, according to data provided to the EPA by the AMSA. In addition, emissions estimation modeling indicates that these primary HAP would be emitted from wastewater treatment units when the compounds are present in the influent at significant concentrations and when treatment units are uncontrolled for air emissions. Most of these primary HAP are discharged to the collection system by industrial sources.

C. Hazardous Air Pollutant Sources

Hazardous air pollutants present in wastewater entering POTW treatment plants can biodegrade, adhere to sewage sludge, volatilize to the air, or remain in the discharge to receiving waters. Wastewater treatment processes have traditionally been designed to remove solids and degrade organic matter to meet effluent guidelines, and the fate of HAP in wastewater has not been a design consideration. Chemical properties of each individual HAP, along with the design of POTW treatment plants, determine whether the HAP volatilizes to the atmosphere, or is eliminated through another means. Hazardous air pollutants may be shifted from one medium to another (to the air through volatilization or to sludge through adsorption), or destroyed through biodegradation. In addition, volatilization of HAP may occur in the wastewater collection system prior to reaching the POTW treatment plant.

Typical wastewater treatment is a combination of physical, chemical, and biological processes designed to remove suspended solids and organic matter from solution. Publicly owned treatment works include wastewater collection systems, treatment units, and outfall or disposal units. Although wastewater treatment at most POTW use similar processes, such as settling processes and biological treatment, no two facilities are identical. Each facility differs in design and operation due to varying conditions such as flow, composition of the influent wastewater, and the environmental conditions and treatment requirements of the system. Treatment processes may also differ among facilities.

Different levels of treatment that a POTW treatment plant may employ include primary, secondary, and advanced treatment. In general, primary treatment refers to physical operations to remove floating and settleable solids. Secondary treatment refers to the use of biological processes, in addition to primary processes, to remove organic matter. Advanced treatment refers to the use of additional combinations of unit operations and processes to remove specific constituents such as nitrogen or phosphorous not removed by prior processes.

A typical POTW consists of a collection system, a series of processes that remove solids, organics, and other pollutants from the wastewater, and a series of processes for managing and treating sludge. In general, most HAP releases at these facilities occur from kinetic stripping caused by turbulent wastewater flow, aeration stripping caused by the addition of air to wastewater, or evaporation. Emissions occur at the first treatment units with both turbulent flow and exposure to the atmosphere. Some POTW have wastewater collection systems that meet these criteria. For other POTW, emissions may not occur until the first open treatment units (i.e., headworks, primary clarifiers, and biotreatment units).

As the waste stream passes through each stage of treatment, the mass of organics is reduced, and thus the potential for emissions of organics is also reduced. Therefore, the potential HAP emissions from advanced treatment, chlorination and dechlorination, sludge digesters, and sludge dewatering are expected to be comparably small. Although the HAP chlorine is used to disinfect treated wastewater prior to discharge, facilities control chlorine feed by monitoring chlorine demand. As a result, minimal free chlorine is available to be emitted. Thus chlorine emissions are expected to be extremely low.

In addition to the wastewater treatment processes at a POTW, other sources of HAP emissions, such as sewage sludge incinerators, may be co-located at the same site. Sewage sludge incineration will be regulated under section 129 of the Act, and will be included in the source category Other Solid Waste Incinerators, that is scheduled for promulgation in the year 2000. Combustion sources at POTW will also be regulated, under section 112, as part of the Industrial Combustion Coordinated Rulemaking. Although these other sources may be regulated separately from POTW, HAP emissions from any source co-located at the same site must be included when determining if the POTW is a major source.

D. Estimated Hazardous Air Pollutant Emissions

Of the approximately 15,600 publicly owned wastewater treatment facilities nationwide, only six facilities have been identified thus far as potential major sources of HAP emissions (see section III., Proposed Approach for this Source Category, of today's proposal, for a description of the determination of major sources). Through the use of emission modeling, these six POTW treatment plants are estimated to emit a total of 245 megagrams per year (Mg/yr) of HAP. The average estimated emissions of HAP from each of these POTW treatment plants is 41 Mg/yr.

The EPA acknowledges that there are uncertainties inherent in any estimate of HAP emissions for sources as diverse as those in the POTW source category. However, the EPA believes that the engineering judgments and methodologies used in developing the HAP emissions estimates for this source category are reasonable given the available information. Documentation of the EPA's analysis is available for public inspection in the docket supporting this rulemaking (see **ADDRESSES** for further information on the docket). The EPA used the emissions estimation model WATER8 to estimate emissions from POTW, and believes it provides an accurate representation of emissions. However, the EPA requests comment on the use of the WATER8 model for determination of emissions from wastewater treatment processes.

E. Hazardous Air Pollutant Control Options

Two different control options, add-on controls (i.e., covers or covers vented to a control device) and pretreatment (i.e., source control), may be utilized by POTW treatment plants. Existing add-on controls are typically used at POTW treatment plants to control odors and are not designed and operated to provide HAP emission reduction. Pretreatment is typically required of industrial users of POTW treatment plants to limit discharge of pollutants that might inhibit treatment operations at the facility or cause exceedences of the outfall discharge requirements by allowing certain compounds to pass through the treatment process in the water phase. Typically, existing add-on controls and pretreatment programs are not designed to prevent emission of HAP, although some incidental reduction may be achieved. Add-on controls and pretreatment programs are discussed further in the following paragraphs.

Add-on controls. Some POTW treatment plants have covers on their existing treatment units. These covers are typically either: (1) Vented using a high ventilation rate (e.g., 12 or more air changes per hour); (2) vented using a low ventilation rate; or (3) not vented. When the high ventilation rates are used, the effectiveness of the covers at suppressing emissions is greatly

HeinOnline -- 63 Fed. Reg. 66087 1998

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 352 of 492

diminished, if not negated, by the increased air flow across the surface of the wastewater in the process. When the low ventilation rates are used, or the treatment unit is not vented, emissions from the treatment unit covered may be suppressed. Some equipment described by personnel at the POTW as "covers" are actually walkway grates placed over open channels designed to prevent personnel from falling into the treatment unit, and provide no air emission control.

Typically, not all processes at a POTW treatment plant are covered. For example, some facilities cover only the screening unit. While the cover provides suppression of emissions from the treatment unit covered, it is likely that the suppressed emissions are released from the uncovered physical processes downstream. Therefore, even though suppression of the emissions in the covered treatment unit reduces emissions from that treatment unit, the suppressed emissions likely occur from the next physical process in the wastewater treatment. Thus, the covered treatment unit results in only a very small, if any, overall emission reduction from the POTW treatment plant. Using the WATER8 emissions estimation model, the EPA has estimated emissions from the six identified major POTW treatment plants. The results of this modeling indicate that overall emission reduction due to these covers is minimal (less than one percent).

The covers used at existing POTW treatment plants are sometimes vented to odor control devices. Odor control devices currently in use include caustic scrubbers and granulated activated carbon (GAC) adsorption units. Caustic scrubbers are used to remove sulfur compounds by venting process emissions through a caustic water solution. Recent studies indicate that these odor control devices have little, if any, effect on removing the HAP of concern for POTW treatment plants. In addition, the AMSA has indicated, and the EPA concurs, that caustic scrubbers are ineffective at HAP emission reduction.

Properly designed, operated, and maintained GAC adsorption units have been demonstrated to achieve at least a 95% reduction in HAP and volatile organic compound (VOC) emissions in some applications. According to the AMSA, however, GAC installed at POTW treatment plants (with one identified exception) are designed and operated for the purpose of odor control. Such GAC adsorption units have much less frequent replacement or regeneration of the carbon than GAC adsorption units designed for HAP control and, as a result, provide no effective overall HAP emission reduction. Therefore, the EPA has concluded that GAC adsorption units in place and operated for the purpose of odor control at POTW treatment plants are ineffective at reducing HAP emissions.

The one exception identified is a POTW treatment plant where GAC adsorption units have been installed at the facility and are operated and maintained, at the expense of a petroleum refinery, to reduce risk from benzene emissions associated with refinery wastewater. This exception is discussed in section III (Source Category Subcategorization) of today's proposal.

Pretreatment. The pretreatment program is authorized by the Clean Water Act. Regulations at 40 CFR 403.8(a) require all POTW that have a total design flow greater than five MGD and receiving pollutants from industrial users which pass through or interfere with the operation of the POTW or are otherwise subject to pretreatment standards to establish pretreatment programs. POTW agencies establish programs of pretreatment requirements for the industrial users discharging to their POTW. The programs must include the legal authority to allow the agencies to control the concentration of pollutants entering the POTW treatment plants. Such pollutants, if not limited in the POTW influent, may cause treatment process inhibition (e.g., adversely affecting the biotreatment organisms or present a safety/health concern to facility workers). They may also cause the facility to exceed its outfall discharge requirements by allowing certain compounds to "pass-through" the treatment process and be discharged in the outfall waters at concentrations greater than permitted allowances. Finally, these pollutants can reduce sludge quality and limit sludge disposal options.

The AMSA and representatives of State and local agencies, in meetings with the EPA, have recommended pretreatment as the preferred method for reducing HAP emissions from POTW treatment plants. Pretreatment would reduce HAP emissions from POTW treatment plants by reducing the concentration of HAP entering the facilities. Pretreatment would also reduce HAP emissions from the wastewater collection systems between the source and the POTW treatment plants. Studies of HAP emissions from wastewater collection systems indicate that such losses could be significant.

The EPA's review of available information regarding pretreatment has revealed little substantive data on its effectiveness at reducing HAP emissions. However, the EPA believes that pretreatment for HAP may be a viable means to further reduce HAP emissions from POTW. Examples of pretreatment for HAP include reduction of HAP at the source (e.g., industrial process modifications; substitution of HAP compound with a non-HAP compound) or physical/chemical treatment of the waste stream prior to discharge from the industrial/commercial facility (e.g., steam stripping). For certain POTW, pretreatment could reduce HAP emissions from both the collection system and the POTW treatment plant. However, information available to the EPA on the use of pretreatment to control HAP emissions from POTW is insufficient to propose any regulatory action at this time. The EPA intends to investigate the potential for HAP emission reduction as a result of pretreatment, based on information received as a result of today's proposal (see section V., Solicitation of Comments, of today's proposal).

III. Proposed Approach for Source Category Subcategorization

As prescribed in section 112(d) of the Act, the level of control for existing major sources shall be no less stringent than:

> * * * the average emission limitation achieved by the best performing 12 percent of the existing sources . . . for categories and subcategories with 30 or more sources, or . . . the average emissions limitation achieved by the best performing five sources . . . for categories or subcategories with fewer than 30 sources.

This minimum level of control is referred to as the "MACT floor." The MACT floor level for new major sources:

> * * * shall not be less stringent than the emission control that is achieved in practice by the best controlled similar source.

After determining any applicable MACT floor for each category or subcategory, the EPA then adopts a MACT standard for that category or subcategory which reflects the maximum degree of reduction in emissions of HAP which is achievable, taking into consideration the cost of achieving such emission reduction and any non-air quality health and environmental impacts and energy requirements.

The MACT floors and MACT standards for a source category are based on available information. As prescribed in section 112(n)(3) of the Act (see section I.D., Stakeholder and Public Participation, of today's proposal), the EPA utilized information provided by the AMSA to assist in

HeinOnline -- 63 Fed. Reg. 66088 1998

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 353 of 492

determining MACT for this source category. As discussed in section II.A. (Summary of Available Information) of today's proposal, the AMSA provided the EPA with data received from some of its members. The AMSA identified a group of 19 POTW treatment plants from which they believed potential major sources could be identified. These 19 facilities were identified by the AMSA because they had influent HAP loadings of more than 10 tpy for a single constituent or more than 25 tpy for a combination of constituents, or because the AMSA believed they had the ability to be potential major sources based on knowledge and professional judgment. Based on a modeling of these 19 POTW treatment plants, only six are potential major sources. The EPA based its determination of the MACT floor for this source category on these six sources.

Of the six potential major sources identified, one POTW treatment plant is substantially different from the others. Until recently, the EPA believed that this source was used by a petroleum refinery to treat benzene-containing wastes to meet their obligations under the National Emission Standard for Benzene Waste Operations (40 CFR Part 61, Subpart FF). Based on new information from the POTW, the EPA recently learned that the POTW controls benzene emissions in response to the California Air Toxics Information and Assessment Act of 1987 (AB2588) (see section IV., Determination of MACT, of today's proposal), rather than in response to the Benzene Waste Operations NESHAP.

Although the EPA is not at this time aware of any instance where an industrial user uses a POTW treatment plant to comply with emission reductions required by any other NESHAP, the EPA believes that such dischargers may exist now or in the future. Over the years, many industries have used POTW treatment plants designed to treat industrial wastewater along with the municipal wastewater. As NESHAP that require the control of HAP emissions from wastewater are promulgated, industrial users may elect, where it is permissible under the NESHAP, to comply with these standards through off-site treatment of their wastewater at POTW rather than by adding emission controls to on-site industrial wastewater treatment plants. When an industrial user elects to utilize controls installed and operated at POTW to comply with another NESHAP (e.g., carbon adsorbers operated in a manner that controls HAP emissions, closed conveyance of wastewater between processes, operation of leak detection and repair programs), these controls will likely be considerably more stringent than those which would otherwise be typical at POTW treatment plants not treating regulated industrial waste streams. In such instances, the POTW would operate the controls as the agent of the industrial user, who would in turn be responsible for compliance with the other NESHAP. By establishing a subcategory for POTW treatment plants that treat regulated industrial waste streams, the EPA will also be able to directly enforce compliance by POTW with the wastewater provisions of any corresponding industrial NESHAP when off-site wastewater treatment is used.

Currently, many chemical plants are deciding how to comply with the wastewater provisions of the Hazardous Organic NESHAP (40 CFR Part 63, Subpart G), and some may elect to add air pollution controls to a POTW treatment plant providing off-site treatment. As more NESHAP are promulgated, more of these industrial POTW treatment plants are likely to be identified.

Therefore, the EPA intends to establish the following two subcategories for the POTW source category: (1) The industrial POTW treatment plants subcategory, that would include POTW treatment plants where treatment of a specific industrial waste stream discharged to the facility is expressly required to comply with the requirements of another NESHAP, and (2) the non-industrial POTW treatment plants subcategory, that would include all remaining POTW treatment plants that do not meet the characteristics of an industrial POTW treatment plant.

The industrial POTW treatment plants subcategory would include only those POTW treatment plants that are treating a specific regulated industrial waste stream to allow an industrial user to comply with another NESHAP. Such facilities would be determined on an individual basis. The industrial POTW treatment plants subcategory would not include POTW treatment plants that accept industrial waste for treatment from an industrial user whose waste is not specifically regulated under another NESHAP. Examples of POTW that would not be in the industrial POTW treatment plants subcategory, as proposed, would include POTW treatment plants that accept waste from local manufacturing facilities whose waste is typically characterized as a permitted industrial discharge by the POTW's source control program.

IV. Determination of MACT

As prescribed in section 112(d) of the Act, the MACT floor for existing sources in each subcategory within the POTW source category is determined by the average emissions limitation achieved by the best performing five sources, because fewer than 30 major sources have been identified within each subcategory. For the non-industrial POTW treatment plants subcategory, only six potential major sources have been identified. The MACT floor was determined for existing sources from the average emission reduction attributed to the controls among the five best performing sources of the six potential major sources.

During the development of this proposed rule, no major source has been identified which would be included in the proposed industrial POTW treatment plants subcategory. Therefore, in determining MACT for existing sources in this subcategory, the EPA has not identified any corresponding MACT floor. The MACT standard for existing sources in the industrial POTW treatment plants subcategory will be equivalent to the control requirements specified by the applicable NESHAP for the specific regulated industrial waste streams discharged to the facility.

As prescribed in section 112(d)(3) of the Act, the maximum degree of reduction in emissions that is deemed achievable for new sources in a category or subcategory shall not be less stringent than the emission control that is achieved in practice by the best controlled similar source, as determined by the Administrator. For the non-industrial POTW treatment plants subcategory, the best performing source has been identified based on a review of emission controls in place at the six identified potential major sources. In addition, the EPA may consider technology that has been demonstrated at one or more similar facilities in identifying the best controls for new sources.

The EPA has identified one POTW treatment plant that has covered all wastewater treatment units up to, but not including, the secondary influent pumping station. In addition, the air in the headspace of the bar screens, grinders, grit chambers, and aerated distribution channels is ducted to control devices which use activated carbon to remove hazardous air pollutants. Therefore, the MACT floor for new sources in the non-industrial POTW treatment plants subcategory was determined based on the controls at the one identified best performing source.

HeinOnline -- 63 Fed. Reg. 66089 1998

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 354 of 492

transmission as First-Class Mail are closed against inspection. Hard copy versions of electronic documents, while being prepared for entry as First-Class Mail, also are closed against postal inspection. The USPS may open mail other than First-Class Mail or Express Mail to determine whether the proper rate of postage is paid. Material wrapped or packaged so that it cannot be examined easily or cannot be examined without destruction or serious damage is closed against postal inspection and is charged the appropriate First-Class Mail or Express Mail rate.

* * * * *

4.0 FEES

4.1 Presort Mailing

[Revise 4.1 to remove references to Mailing Online mailers to read as follows:]

A First-Class Mail presort mailing fee must be paid once each 12-month period at each office of mailing by any person or organization entering mailings at automation or Presorted First-Class Mail rates. Payment of one fee allows a mailer to enter mail at all those rates. Persons or organizations paying this fee may enter clients' mail as well as their own mail. The fee may be paid in advance only for the next year and only during the last 30 days of the current service period. The fee charged is that which is in effect on the date of payment.

* * * * *

E140 Automation Rates

1.0 BASIC STANDARDS

[Revise 1.1b by removing reference to Mailing Online in G093 to read as follows:]

1.1 All Pieces

All pieces in a First-Class Mail automation rate mailing must:

* * * * *

b. Be part of a single mailing of at least 500 pieces of automation rate First-Class Mail, subject to 1.2.

* * * * *

E611 All Standard Mail

1.0 BASIC INFORMATION

* * * * *

1.2 Postal Inspection

[Revise 1.2 by removing reference to documents created in electronic form by means of Mailing Online to read as follows:]

Standard Mail is not sealed against postal inspection except for electronic documents retained by the Postal Service, which are sealed against postal inspection. Regardless of physical closure, the mailing of articles at Standard Mail rates constitutes consent by the mailer to postal inspection of the contents.

* * * * *

E612 Additional Standards for Standard Mail (A)

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4.0 BULK RATES

* * * * *

4.7 Annual Fees

[Revise 4.7 by removing reference to fees in G093 to read as follows:]

Standard Mail (A) is subject to an annual mailing fee once each 12-month period. The fee may be paid in advance only for the next year and only during the last 30 days of the current service period. The fee charged is that in effect on the date of payment. Each mailer who enters mail at Standard Mail (A) rates paid with a meter or precanceled stamps must pay an annual mailing fee at each post office of mailing; a mailer paying this fee may enter clients' mail as well as the mailer's own. The mailer whose permit imprint appears on pieces in a mailing paid with a permit imprint must show that permit number on the postage statement and must pay the annual mailing fee for that permit; this fee is in addition to the fee for an application to use permit imprints.

* * * * *

4.9 Preparation

[Revise 4.9b by removing reference to Mailing Online in G093 to read as follows:]

Each Standard Mail (A) mailing is subject to these general standards:

* * * * *

b. Each mailing must contain at least 200 pieces or 50 pounds. See E620 for volume requirement eligibility unique to Presorted Standard rate mailings. Other volume standards can also apply, based on the rate claimed.

* * * * *

G General Information

* * * * *

[Remove G093, Mailing Online, and remove the preceding headings G000 and G090.]

* * * * *

P040 Permit Imprints

5.0 MAILINGS

5.1 Minimum Quantity

[Remove 5.1d, which provided for Mailing Online permit imprint mailings.]

* * * * *

These revisions will be incorporated into the pages of the Domestic Mail Manual. An appropriate amendment to 39 CFR 111.3 will be published in the **Federal Register** to reflect these changes.

Stanley F. Mires,

Chief Counsel, Legislative.

[FR Doc. 99–27906 Filed 10–25–99; 8:45 am]

BILLING CODE 7710–12–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 63

[AD–FRL–6462–7]

RIN 2060–AF26

National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates national emission standards for hazardous air pollutants (NESHAP) for new and existing publicly owned treatment works (POTW). The primary hazardous air pollutants (HAP) emitted by these sources include xylenes, methylene chloride, toluene, ethyl benzene, chloroform, tetrachloroethylene, benzene, and naphthalene.

Each of these HAP can cause adverse health effects provided sufficient exposure. For example, exposure to methylene chloride can adversely affect the central nervous system and has been shown to cause liver and lung cancers in animals, while benzene is known to cause cancer in humans.

With this final rule, the EPA is requiring air pollution controls on a new or reconstructed treatment plant at a POTW that is a major source of HAP. The standards also require that new and existing POTW treating regulated waste streams from an industrial user, for the purpose of allowing that industrial user to comply with another NESHAP, meet the treatment and control requirements of the other relevant NESHAP.

EFFECTIVE DATE: October 26, 1999.

ADDRESSES: *Docket.* Docket No. A–96–46, containing information considered

HeinOnline -- 64 Fed. Reg. 57572 1999

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 355 of 492

by the EPA in development of the promulgated standards, is available for public inspection from 8 a.m. to 5:30 p.m., Monday through Friday, at the following address in room M–1500, Waterside Mall (ground floor): US Environmental Protection Agency, 401 M Street SW, Washington, DC 20460, telephone number (202) 260–7548. A reasonable fee may be charged for copying docket materials.

Responses to Comments Document. The responses to comments document for the promulgated standards may be obtained from the EPA Library (MD–35), Research Triangle Park, North Carolina 27711, telephone (919) 541–2777, or from the National Technical Information Services, 5285 Port Royal Road, Springfield, Virginia 22151, telephone (703) 605–6000 or (800) 553–6847 or via the Internet at www.fedworld.gov/ntis/ntishome/html. Please refer to "National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works—Background Information for Final Standards: Summary of Public Comments and Responses" (EPA–453/R–99–008, October 1999).

The document contains the following: (1) a summary of all the public comments made on the proposed standards and the Administrator's responses to the comments, and (2) a summary of the changes made to the standards since proposal. This document is also available for downloading from the Technology Transfer Network (see **SUPPLEMENTARY INFORMATION**).

FOR FURTHER INFORMATION CONTACT: For information concerning this final rule or the analyses performed in developing this rule, contact Mr. Robert Lucas, Waste and Chemical Processes Group, Emission Standards Division (MD–13), Office of Air Quality Planning and Standards, U.S. EPA, Research Triangle Park, North Carolina 27711, telephone number (919) 541–0884, facsimile number (919) 541–0246, electronic mail address "lucas.bob@epa.gov". For information concerning applicability and rule determinations, contact your State or local representative or the appropriate EPA regional representatives. For a listing of EPA Regional contacts, see the following **SUPPLEMENTARY INFORMATION** section.

SUPPLEMENTARY INFORMATION:

Electronic Access. These final standards and all other information considered by the EPA in the development of the final standards are available in Docket Number A–96–46 or by request from the EPA's Air and Radiation Docket and Information Center (see **ADDRESSES**). Electronic versions of documents from the Office of Air and Radiation (OAR) are available through the EPA's OAR Technology Transfer Network Web site (TTNWeb). The TTNWeb is a collection of related Web sites containing information about many areas of air pollution science, technology, regulation, measurement, and prevention. The TTNWeb is directly accessible from the Internet via the World Wide Web location at the following address: "http://www.epa.gov/ttn". Electronic versions of this preamble and rule are located under the OAR Policy and Guidance Information Web site, at "http://www.epa.gov/ttn/oarpg/", under the **Federal Register** notices section. If more information on the TTNWeb is needed, contact the Systems Operator at (919) 541–5384.

EPA Regional Offices

Director, Office of Environmental Stewardship, Attn: Air Compliance Clerk
U.S. EPA Region I, 1 Congress Street, Suite 1100 (SEA), Boston, MA 02114–2023, (617) 918–1740

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Tami Thomas-Burton
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Ken Bigos
U.S. EPA Region IX, 75 Hawthorne Street, San Francisco, CA 94105, (415) 744–1200

Dan Meyer
U.S. EPA Region X, 1200 Sixth Street, Seattle, WA 98101, (206) 553–4150

Regulated Entities. Entities potentially regulated by this action are publicly owned treatment works. Regulated categories and entities include:

Category	Standard Industrial Classification (SIC) codes	North American Industrial Classification System (NAICS) codes	Examples of potentially regulated entities
Industry (3) Not affected			
Federal Government	4952	22132	Sewage treatment facilities, and federally owned treatment works.
State/local/tribal governments	4952	22132	Sewage treatment facilities, municipal wastewater treatment facilities, and publicly owned treatment works.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that the EPA is now aware could potentially be regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether your facility is regulated by this promulgated action, you should carefully examine the applicability criteria in section III. A of this document and in 40 CFR 63.1580. If you have questions regarding the applicability of this action to a particular entity, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Judicial Review. National emission standards for hazardous air pollutants from POTW were proposed in the **Federal Register** on December 1, 1998 (63 FR 66084). Today's **Federal Register** action announces the EPA's final decision on the rule. Under section 307(b)(1) of the Clean Air Act (Act), judicial review of the final rule is available by filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit within 60 days of today's publication of this final rule. Only an objection to this action which was raised with reasonable

HeinOnline -- 64 Fed. Reg. 57573 1999

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 356 of 492

specificity during the period for public comment may be raised during judicial review. Under section 307(b)(2) of the Act, the requirements that are the subject of today's notice may not be challenged later in civil or criminal proceedings brought by the EPA to enforce these requirements.

The following outline is provided to aid in reading the preamble to the final rule.

I. Background
A. Source Category Description
B. Overview of HAP Emissions from POTW
II. Summary of Considerations Made in Developing This Standard
A. Source of Authority
B. Stakeholder and Public Participation
III. Summary of Promulgated Standards
A. Affected Sources and Applicability
B. Requirements
IV. Summary of Impacts
V. Significant Comments and Changes to the Proposed Standards
A. Major Source Determination
B. Co-location With Other Sources of HAP Emissions
C. Control Requirements
D. Federally Owned Treatment Works
VI. Administrative Requirements
A. Executive Order 12866
B. Executive Order 13045
C. Paperwork Reduction Act
D. Regulatory Flexibility Act
E. Unfunded Mandates
F. Executive Order 12875
G. Executive Order 13084
H. National Technology Transfer and Advancement Act
I. Congressional Review Act
J. Executive Order 12612

I. Background

A. Source Category Description

The EPA's initial list of categories of major sources of HAP emissions, established under section 112(c)(1) of the Act, included POTW. This list was published on July 16, 1992 (57 FR 31576). The POTW source category is defined in the supporting documentation for the initial source category list. The POTW source category "includes emissions from wastewaters which are treated at a POTW."

> These wastewaters are produced by industrial, commercial, and domestic sources. Emissions from these wastewaters can occur within the collection system (sewers) as well as during treatment at the POTW. Control options include, but are not limited to, reduction of HAP's at the source before they enter the collection system, add-on emission controls on the collection system and at the POTW, and/or treatment process modifications/substitutions. (Documentation for Developing the Initial Source Category List, EPA–450/3–91–030, July 1992)

Section 112(e)(5) of the Act defines POTW by referring to the definition of treatment works in title II of the Federal Water Pollution Control Act, commonly referred to as the Clean Water Act. As set forth in section 212(2), 33 U.S.C. 1292(2), treatment works include the wastewater treatment units themselves, as well as intercepting sewers, outfall sewers, sewage collection systems, pumping, power, and other equipment. Any of these devices which are publicly owned may be a POTW. The wastewater collected, transmitted, and treated by such POTW may be generated by industrial, commercial, and/or domestic sources.

B. Overview of HAP Emissions From POTW

The HAP emitted by POTW originate in wastewater streams discharged by industrial, commercial, and other facilities. Since POTW can receive any HAP constituent, potentially, POTW can have emissions of any HAP. Currently, the primary HAP constituents associated with POTW sources include xylenes, methylene chloride, toluene, ethyl benzene, chloroform, tetrachloroethylene, benzene, and naphthalene.

Each of these HAP can cause adverse health effects provided sufficient exposure. For example, exposure to methylene chloride can adversely affect the central nervous system and has been shown to cause liver and lung cancers in animals, while benzene is known to cause cancer in humans.

Hazardous air pollutants present in wastewater entering POTW treatment plants can biodegrade, adhere to sewage sludge, volatilize to the air, or pass through (remain in the discharge) to receiving waters. Within the POTW source category, wastewater treatment units are the most likely source for HAP emissions, but wastewater collection systems (including transport systems) and other devices may also have emissions.

II. Summary of Considerations Made in Developing This Standard

A. Source of Authority

Section 112 of the Act addresses stationary sources of HAP. Section 112(b) of the Act, as amended, lists 188 chemicals, compounds, or groups of chemicals as HAP. The EPA is directed by section 112 to regulate the emissions of HAP from stationary sources by establishing national emission standards.

The statute requires the EPA to establish standards to reflect the maximum degree of reduction in HAP emissions through application of maximum achievable control technology (MACT) to major sources. Section 112(a)(1) of the Act defines a major source as:

> * * * any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential-to-emit considering controls, in the aggregate 10 tons per year (tpy) or more of any HAP or 25 tpy or more of any combination of HAP.

Section 112(d)(3) prescribes a minimum level of control for major sources of HAP, referred to as the MACT floor.

Section 112(e)(5) of the Act required the EPA to promulgate a MACT standard for publicly owned treatment works by November 15, 1995. Under section 112(j)(2) (the "MACT hammer"), if the EPA failed to promulgate a POTW MACT standard by November 15, 1997, major sources in the POTW category would be required to submit, within 18 months (by May 15, 1999), an application for a permit which would impose MACT requirements on a case-by-case basis. Although the EPA was unable to meet this deadline, on May 14, 1999, the EPA promulgated a rule (64 FR 26311) which extended the section 112(j) permit application deadline for this source category until December 15, 1999. The obligation for facilities to file a permit application under section 112(j)(2) is eliminated by the promulgation of these final standards.

B. Stakeholder and Public Participation

As prescribed in section 112(n)(3) of the Act:

> The Administrator may conduct, in cooperation with the owners and operators of publicly owned treatment works, studies to characterize emissions of hazardous air pollutants emitted by such facilities, to identify industrial, commercial and residential discharges that contribute to such emissions and to demonstrate control measures for such emissions. When promulgating any standard under this section applicable to publicly owned treatment works, the Administrator may provide for control measures that include pretreatment of discharges causing emissions of hazardous air pollutants and process or product substitutions or limitations that may be effective in reducing such emissions.

During the development of these final standards, representatives of POTW and sanitation districts were extensively consulted. The EPA worked closely with a trade association known as the Association of Metropolitan Sewerage Agencies (AMSA) for approximately 7 years.

A database comprising information supplied by the AMSA was used in the evaluation of HAP emissions and emissions control for POTW. Estimates of organic HAP emissions from model

HeinOnline -- 64 Fed. Reg. 57574 1999

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 357 of 492

sources were developed by the EPA based on information supplied by the AMSA, including most of the modeling inputs used for the EPA WATER8 emissions estimation model.

III. Summary of Promulgated Standards

This section provides a summary of the final standards contained in 40 CFR part 63, subpart VVV. The full regulatory text is printed in today's document and is also available in Docket No. A–96–46, directly from the EPA, or from the Technology Transfer Network (TTN) on the EPA's electronic bulletin board. More information on how to obtain a copy of the final regulation is provided in the **SUPPLEMENTARY INFORMATION** section of this document.

A. Affected Sources and Applicability

The wastewater treatment plant at a POTW is the affected source for this subpart. The subpart is applicable only to POTW that are located at facilities which are major sources of HAP emissions. In addition, the final rule exempts facilities which are not required to develop a pretreatment program under 40 CFR part 403.

B. Requirements

The final standards for POTW do not require any additional controls for existing non-industrial POTW treatment plants. New or reconstructed non-industrial POTW treatment plants must reduce their HAP emissions. This is accomplished by using covers and control devices on the POTW treatment units up to, but not including, the secondary treatment units.

In response to comments that the control requirements for new or reconstructed non-industrial POTW were too prescriptive and did not account for the differences between POTW treatment plants, the final standards include an alternative compliance option. Using the available HAP data provided by the trade association, the EPA calculated a fraction emitted value equivalent to applying covers and control devices on treatment units up to, but not including, the secondary treatment units. Under this option, each month, facilities calculate the fraction emitted by dividing the sum total of HAP emissions by the sum total of HAP loading to the wastewater treatment plant. Facilities must demonstrate that the annual rolling average of the fraction emitted does not exceed 0.014. Facilities can use any combination of pretreatment, wastewater treatment plant modifications, and control devices to meet the fraction emitted limit.

The POTW which provide treatment and control for a waste stream regulated by an industrial MACT are defined as industrial POTW treatment plants. Under the industrial discharger's MACT, the POTW provides air pollution control, generally under a contractual agreement. Today's POTW standard makes these controls directly enforceable on the POTW. An owner or operator of a new or reconstructed industrial POTW treatment plant must comply with the existing source MACT or the new or reconstructed MACT for non-industrial POTW, whichever is more stringent.

IV. Summary of Impacts

There are approximately 16,000 POTW nationwide that receive and treat approximately 113.6 million cubic meters per day (30 billion gallons per day) of domestic, commercial, and industrial wastewater. It was not possible to survey each facility and make a major source determination. Although only six major sources have been identified, the EPA knows that additional major sources will be subject to these standards. Based on discussions with POTW representatives, the EPA believes that these additional major sources do not have different emission sources or controls than the six identified facilities. Today's final rule does not add new requirements for these existing facilities.

Several POTW have been identified as possible industrial POTW. In addition, as more industrial NESHAP are promulgated, the EPA believes that more POTW could be used by industries to comply with the requirements of their industrial NESHAP. Today's final rule does not require any additional control, but it does make the industrial NESHAP control requirements directly enforceable on the POTW.

Current information from POTW representatives projects no new or reconstructed major POTW for the next 5 years. Thus, the EPA does not expect that any facilities will be required to apply the emission controls included in today's final rule, and the EPA projects minimal impacts from today's action.

V. Significant Comments and Changes to the Proposed Standards

Nineteen comment letters were received on the proposed rule. The commenters included State and local air pollution agencies, owners and operators of POTW, trade organizations, representatives of academia, and private citizens. A detailed discussion of these comments and responses can be found in the Background Information Document for the Final Standards (EPA–453/R–99–008).

The EPA's review of the significant issues raised by the commenters resulted in several changes to the proposed rule. This section summarizes the significant comments and provides the EPA's response to those comments.

A. Major Source Determination

The EPA developed a methodology which included a number of ways by which a POTW could determine if their treatment plant was a major source of HAP emissions. The methods developed were presented in a tiered approach to provide maximum flexibility and were primarily intended to assist the thousands of POTW treatment plants that are not major sources. Several comments were received that opposed including any methodology for major source determination.

Due to title V, part 70 determinations, a POTW and its local air pollution regulatory authorities should have agreement on the methods by which the POTW estimates emissions from wastewater treatment operations. Therefore, the EPA has removed procedures for major source determination, and has referred to 40 CFR part 63, Subpart A—General Provisions, for the definition of a major source.

The procedures that were removed from the standards, along with additional guidance, will be included in a future document on estimating emissions from POTW. The EPA will continue to provide assistance on the use of the WATER8 model. Requests for guidance on emissions estimation for the purpose of major source determination will be addressed on an "as-needed" basis, and may be obtained by consulting the person listed in the **FOR FURTHER INFORMATION CONTACT** section of today's final rule.

B. Co-Location With Other Sources of HAP Emissions

Several commenters believed that if a POTW treatment plant is not a major source, then it should not be considered a major source if it is co-located with another major source. These commenters recommended that the emissions should be based on actual emissions from the wastewater treatment portion of the POTW and should not include emissions from co-located sources (*e.g.*, portable internal combustion engines). -

The term "major source" is defined in 40 CFR part 63, Subpart A—General Provisions, and includes the requirement for considering emissions

HeinOnline -- 64 Fed. Reg. 57575 1999

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 358 of 492

and the potential for emissions from co-located sources when determining major source status. Therefore, the major source determination must be based on facility-wide emissions.

C. Control Requirements

Several commenters believed that it was inappropriate to require POTW to be subject to §§ 63.693 through 63.697 of 40 CFR part 63, Subpart DD—National Emission Standards for Hazardous Air Pollutants: Off-Site Waste and Recovery Operations. The commenters stated that the best-controlled facility, on which the EPA based its MACT floor for new and reconstructed facilities, does not comply with these standards.

In response to the comments, the EPA has removed requirements from §§ 63.693 through 63.697 of 40 CFR part 63 which are not appropriate for POTW. In particular, the final rule does not require the use of an organic vapor analyzer to check for leaks in either the closed-vent system or the covers on tanks.

In addition, the EPA has added an alternative compliance option based on a modeling study of the control requirements. This alternative compliance option allows a new or reconstructed source to comply by demonstrating, for units up to, but not including the secondary treatment, that the weighted fraction emitted does not exceed 0.014 based on an annual average. Facilities calculate the weighted fraction emitted by dividing the sum total of HAP emissions by the sum total of HAP loading to the wastewater treatment plant.

A POTW may use any combination of pretreatment, wastewater treatment plant modifications, and control devices to achieve this performance standard. Facilities can determine the appropriate control efficiency for a particular control device. However, the POTW must document these calculations and demonstrate continuous compliance to the Administrator's satisfaction. In this context, continuous compliance refers to an annual rolling average of the fraction of the HAPs in the wastewater treated by the POTW which are emitted to the air.

D. Federally Owned Treatment Works

One commenter questioned whether Federally Owned Treatment Works (FOTW) should be subject to this rulemaking. The commenter suggested that FOTW should be excluded from the POTW source category because the term "publicly owned treated works" has been used more narrowly in other statutory contexts.

The EPA notes that many treatment works owned and operated by municipalities, States, and intermunicipal or interstate agencies are essentially the same in design, in operation, and in the types of wastewater that are treated as treatment works operated by the Federal government. Regulations developed under the Clean Water Act generally require that both types of facilities meet the same control requirements. EPA does not believe that it would be a constructive use of governmental resources to promulgate a separate MACT standard for FOTW. In addition, EPA believes that the inclusion of FOTW within the POTW source category is consistent with the intent of the Federal Facility Compliance Act of 1992.

EPA understands the confusion which could be caused by differences in the meaning of the term "publicly owned treatment works" in differing regulatory contexts. By including treatment works owned by the Federal government in the POTW source category, EPA does not intend to alter in any way the manner in which the term "publicly owned treatment works" has been interpreted or applied under any other statute or in any other regulation. Accordingly, EPA has revised the definition of POTW in this rule both to recognize this distinction and to confirm the intent of EPA to include FOTW in this source category.

VI. Administrative Requirements

A. Executive Order 12866

Under Executive Order 12866 (58 FR 51735, October 4, 1993), the Agency must determine whether the regulatory action is "significant" and therefore subject to Office of Management and Budget (OMB) review and to the requirements of the Executive Order. The Order defines "significant regulatory action" as one that is likely to result in a rule that may:

(1) Have an annual effect on the economy of $100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or governments or communities;

(2) Create a serious inconsistency or otherwise interfere with an action taken or planned by another Agency;

(3) Materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights and obligations or recipients thereof; or

(4) Raise novel legal or policy issues arising out of legal mandates, the President's priorities, or the principles set forth in the Executive Order.

The OMB has deemed this regulatory action significant and requested review of this final rulemaking package. Therefore, the EPA submitted this action to OMB for review. Changes made in response to OMB suggestions or recommendations are documented in the public record.

B. Executive Order 13045

Executive Order 13045, "Protection of Children from Environmental Health Risks and Safety Risks" (62 FR 19885, April 23, 1997), applies to any rule that: (1) Is determined to be "economically significant" as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that the EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the EPA must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the EPA.

This final rule is not subject to Executive Order 13045 because it does not involve decisions on environmental health risks or safety risks that may disproportionately affect children.

C. Paperwork Reduction Act

The information collection requirements in this final rule have been submitted for approval to OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* An Information Collection Request (ICR) document has been prepared by EPA (ICR No. 1891.02), and a copy may be obtained from Sandy Farmer by mail at the OP Regulatory Information Division, U.S. Environmental Protection Agency (2137), 401 M Street SW, Washington, DC 20460, by e-mail at farmer.sandy@epa.gov, or by calling (202) 260–2740. A copy may also be downloaded off the Internet at http://www.epa.gov/icr.

Generally, respondents are required to submit one-time reports of (1) start of construction for new facilities, and (2) anticipated and actual start-up dates for new facilities. For sources constructed or reconstructed after the effective date of the relevant standard, the regulation requires that the source submit an application for approval of construction or reconstruction. The application is required to contain information on the air pollution control that will be used for each potential HAP emission point.

For POTW facilities, the public reporting and recordkeeping burden is

HeinOnline -- 64 Fed. Reg. 57576 1999

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 359 of 492

estimated to average 41 hours per respondent per year. This estimate includes time for preparing and submitting notices, preparing and submitting demonstrations and applications, reporting releases, gathering information, and preparing and submitting reports. No capital costs are anticipated.

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

An agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number. The OMB control numbers for EPA's regulations are listed in 40 CFR part 9 and 48 CFR chapter 15.

Comments are requested on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques. Send comments on the ICR to the Director, OP Regulatory Information Division, U.S. Environmental Protection Agency (2137), 401 M Street SW, Washington, DC 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street NW, Washington, DC 20503, marked "Attention: Desk Officer for EPA."

D. Regulatory Flexibility Act

The Regulatory Flexibility Act (RFA) generally requires an agency to conduct a regulatory flexibility analysis of certain proposed and final rules unless the agency certifies that the rule in question will not have a significant economic impact on a substantial number of small entities. The EPA's findings in this section are the result of the statutory requirements of the RFA as amended by the Small Business Regulatory Enforcement Fairness Act.

The EPA has determined that it is not necessary to prepare a regulatory flexibility analysis in connection with this final rule. The EPA has also determined that this rule will not have a significant economic impact on a substantial number of small entities. This final rule will impose no new requirements on existing industrial or non-industrial POTW treatment plants or new industrial POTW treatment plants. The EPA is uncertain whether any new non-industrial POTW treatment plants would be of sufficient size to be subject to this rule, but the number of affected sources would be very small in any case.

E. Unfunded Mandates

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), Public Law 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, the EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with "Federal mandates" that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any 1 year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires the EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows the EPA to adopt an alternative other than the least costly, most cost-effective, or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before the EPA establishes any regulatory requirements that may significantly or uniquely affect small governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

The EPA has determined that this rule does not contain a Federal mandate that may result in expenditures of $100 million or more for State, local, and tribal governments, in aggregate, or the private sector in any 1 year, nor does the rule significantly or uniquely impact small governments, because it contains no requirements that apply to such governments or impose obligations upon them. Thus, the requirements of the UMRA do not apply to this rule.

F. Executive Order 12875

Under Executive Order 12875, EPA may not issue a regulation that is not required by statute and that creates a mandate upon a State, local or tribal government, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by those governments, or EPA consults with those governments. If EPA complies by consulting, Executive Order 12875 requires EPA to provide to OMB a description of the extent of EPA's prior consultation with representatives of affected State, local and tribal governments, the nature of their concerns, copies of any written communications from the governments, and a statement supporting the need to issue the regulation. In addition, Executive Order 12875 requires EPA to develop an effective process permitting elected officials and other representatives of State, local and tribal governments "to provide meaningful and timely input in the development of regulatory proposals containing significant unfunded mandates."

Today's rule is required under section 112 (e)(5) of the Clean Air Act. Accordingly, the requirements of section 1(a) of Executive Order 12875 do not apply to this rule.

In developing this rule, the EPA consulted with these governments to enable them to provide meaningful and timely input in the development of this rule. As discussed in section II.B of this document, consultation opportunities included presumptive MACT partnerships, stakeholder meetings, and participation on the internal working group that prepared these final standards. State and local regulatory agencies are expected to be in favor of this final rule. Prior to publication of the proposed rule, some representatives of local governments had expressed concerns about the emission models and testing used to determine area source status. The EPA worked with these representatives in developing this final rule, and their concerns should be resolved with the publication of this final rule.

G. Executive Order 13084

Under Executive Order 13084, the EPA may not issue a regulation that is

US EPA ARCHIVE DOCUMENT

HeinOnline -- 64 Fed. Reg. 57577 1999

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 360 of 492

requirements specified in the appropriate industrial NESHAP(s). Requirements may include performance tests, routine monitoring, recordkeeping, and reporting.

(b) If you have a new or reconstructed industrial POTW plant, you must first determine whether the control requirements set forth in the applicable industrial NESHAP(s) or the control requirements applicable to a new or reconstructed nonindustrial POTW under § 63.1586 would require more stringent overall control of HAP emissions. You must then meet whichever set of requirements is more stringent. If you determine that the controls required by the applicable industrial NESHAP(s) are more stringent, you demonstrate compliance by operating treatment and control devices which meet all requirements specified in those industrial NESHAP(s). If you determine that the controls required for a new or reconstructed nonindustrial POTW are more stringent, you demonstrate compliance by meeting all requirements in §§ 63.1586 through 63.1590.

Non-industrial POTW Treatment Plant Requirements

§ 63.1586 What are the emission points and control requirements for a non-industrial POTW treatment plant?

There are no control requirements for an existing non-industrial POTW treatment plant. The control requirements for a new or reconstructed non-industrial POTW treatment plant are as follows:

(a) Covers on the emission points up to, but not including, the secondary influent pumping station or the secondary treatment units. These emission points are treatment units that include, but are not limited to, influent waste stream conveyance channels, bar screens, grit chambers, grinders, pump stations, aerated feeder channels, primary clarifiers, primary effluent channels, and primary screening stations. In addition, all covered units, except primary clarifiers, must have the air in the headspace ducted to a control device in accordance with the standards for closed-vent systems and control devices in § 63.693 of subpart DD of this part, except you may substitute visual inspections for leak checks rather than Method 21 of Appendix A of part 60 of this chapter. Reconstructed is defined in § 63.1595.

(1) Covers must be tightly fitted and designed and operated to minimize exposure of the wastewater to the atmosphere. This includes, but is not limited to, the absence of visible cracks, holes, or gaps in the roof sections or between the roof and the supporting wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(2) If wastewater is in a treatment unit, each opening must be maintained in a closed, sealed position, unless plant personnel are present and conducting wastewater or sludge sampling, or equipment inspection, maintenance, or repair.

(b) As an alternative to the requirements in paragraph (a) of this section, you may comply by demonstrating, for all units up to the secondary influent pumping station or the secondary treatment units, that the fraction emitted does not exceed 0.014. You must demonstrate that for your POTW, the sum of all HAP emissions from those units divided by the sum of all HAP mass loadings results in a annual rolling average of the fraction emitted no greater than 0.014. You may use any combination of pretreatment, wastewater treatment plant modifications, and control devices to achieve this performance standard; however, you must demonstrate, to the Administrator's satisfaction that:

(1) You have accurately determined your POTW's annual HAP mass loadings and your POTW's annual HAP emissions as of the date of start-up;

(2) Your POTW meets the fraction emitted standard of 0.014 or less; and

(3) Your POTW has established procedures to demonstrate continuous compliance which are consistent with the criteria set forth in § 63.1588(c)(4).

§ 63.1587 When do I have to comply?

If your POTW treatment plant began construction on or after December 1, 1998, you must comply with all provisions of this subpart either immediately upon startup, or by six months after October 26, 1999, whichever date is later.

§ 63.1588 What inspections must I conduct?

(a) If your treatment units are required to have covers, you must conduct the following inspections:

(1) You must visually check the cover and its closure devices for defects that could result in air emissions. Defects include, but are not limited to, visible cracks, holes, or gaps in the roof sections or between the roof and the supporting wall; broken, cracked, or otherwise damaged seals or gaskets on closure devices; and broken or missing hatches, access covers, caps, or other closure devices.

(2) You must perform an initial visual inspection with follow-up inspections at least once per year.

(3) In the event that you find a defect on a treatment unit in use, you must repair the defect within 45 days. If you cannot repair within 45 days, you must notify the EPA or the designated State authority immediately and report the reason for the delay and the date you expect to complete the repair. If you find a defect on a treatment unit that is not in service, you must repair the defect prior to putting the treatment unit back in wastewater service.

(b) If you own or operate a control device used to meet the requirements for § 63.1586, you must comply with the inspection and monitoring requirements of § 63.695(c) of subpart DD of this part.

(c) To comply with the performance standard specified in § 63.1586(b), you must develop an inspection and monitoring plan. This inspection and monitoring plan must include, at a minimum, the following:

(1) A method to determine, to the satisfaction of the Administrator, the influent HAP mass loading, *i.e.,* the annual mass quantity for each HAP entering the wastewater treatment plant.

(2) A method to determine, to the satisfaction of the Administrator, your POTW's annual HAP emissions for all units up to and including the secondary influent pumping station or up to and not including the secondary treatment units as of October 26, 1999. The method you use to determine your HAP emissions, such as modeling or direct source measurement, must:

(i) Be approved by your EPA Regional Office, State, or local regulatory agency for use at your POTW;

(ii) Account for all factors affecting emissions from your plant including, but not limited to, emissions from wastewater treatment units; emissions resulting from inspection, maintenance, and repair activities; fluctuations (*e.g.,* daily, monthly, annual, seasonal) in your influent wastewater HAP concentrations; annual industrial loading; performance of control devices; or any other factors that could affect your annual HAP emissions; and

(iii) Include documentation that the values and sources of all data, operating conditions, assumptions, etc., used in your method result in an accurate estimation of annual emissions from your plant.

(3) Documentation, to the satisfaction of the Administrator, that your POTW meets the fraction emitted standard of 0.014 or less, *i.e.,* the sum of all HAP emissions from paragraph (c)(2) of this section divided by the sum of all HAP mass loadings from paragraph (c)(1) of

HeinOnline -- 64 Fed. Reg. 57580 1999

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 361 of 492

this section results in a fraction emitted of 0.014 or less as described in paragraph (c)(4) of this section.

(4) A method to demonstrate, to the satisfaction of the Administrator, that your POTW is in continuous compliance with the requirements of § 63.1586(b). Continuous compliance means that your emissions, when averaged over the course of a year, do not exceed the level of emissions that allows your POTW to comply with § 63.1586(b). For example, you may identify a parameter(s) that you can monitor that assures your emissions, when averaged over the entire year, will meet the requirements in § 63.1586(b). Some example parameters that may be considered for monitoring include your wastewater influent HAP concentration and flow, industrial loading from your permitted industrial dischargers, and your control device performance criteria. Where emission reductions are due to proper operation of equipment, work practices, or other operational procedures, your demonstration must specify the frequency of inspections and the number of days to completion of repairs. You must, at a minimum, perform the following each month to demonstrate that your annual rolling average of the fraction emitted is 0.014 or less:

(i) Determine the average daily flow of the wastewater entering your POTW treatment plant for the month;

(ii) Determine the flow-weighted monthly concentration of each HAP in your influent listed in Table 1 to subpart DD of this part;

(iii) Using the current month's information in paragraphs (c)(4)(i) and (ii) of this section, determine a total annual loading (Mg/year) of each HAP entering your POTW treatment plant;

(iv) Sum up the values in paragraph (c)(4)(iii) of this section and determine a total annual loading value (Mg/year) for all HAP entering your POTW treatment plant for the current month;

(v) Based on the current month's information in paragraph (c)(4)(iii) of this section along with source testing and emission modeling, for each HAP, determine annual emissions (Mg/year) from all wastewater units up to, but not including, secondary treatment units;

(vi) Sum up the values in paragraph (c)(4)(v) of this section and determine the total annual emissions value for the month for all HAP from all wastewater units up to, but not including, secondary treatment units;

(vii) Calculate the fraction emitted value for the month by dividing the total annual HAP emissions value from paragraph (c)(4)(vi) of this section by the total annual loading from paragraph (c)(4)(iv) of this section; and

(viii) Average the fraction emitted value for the month determined in paragraph (c)(4)(vii) of this section, with the values determined for the previous 11 months, to calculate an annual rolling average of the fraction HAP emitted.

§ 63.1589 What records must I keep?

(a) To comply with the equipment standard specified in § 63.1586(b), you must prepare and maintain the following records:

(1) A record for each treatment unit inspection required by § 63.1588(a). You must include a treatment unit identification number (or other unique identification description as selected by you) and the date of inspection.

(2) For each defect detected during inspections required by § 63.1588(a), you must record the location of the defect, a description of the defect, the date of detection, the corrective action taken to repair the defect, and the date the repair to correct the defect is completed.

(3) In the event that repair of the defect is delayed, in accordance with the provisions of § 63.1588(a), you must also record the reason for the delay and the date you expect to complete the repair.

(4) If you own or operate a control device used to meet the requirements for § 63.1586, you must comply with the recordkeeping requirements of § 63.696(a), (b), (g), and (h).

(b) To comply with the performance standard specified in § 63.1586(b), you must prepare and maintain the following records:

(1) A record of the methods and data used to determine your POTW's annual HAP emissions as determined in § 63.1588(c);

(2) A record of the methods and data used to determine that your POTW meets the fraction emitted standard of 0.014 or less, as determined in § 63.1588(c); and

(3) A record of the methods and data that demonstrates that your POTW is in continuous compliance with the requirements of § 63.1588(c).

§ 63.1590 What reports must I submit?

(a)(1) If you have an existing nonindustrial POTW treatment plant, you are not required to submit a notification of compliance status. If you have a new or reconstructed nonindustrial POTW treatment plant, you must submit to the Administrator a notification of compliance status, signed by the responsible official who must certify its accuracy, attesting to whether your POTW treatment plant has complied with this subpart. This notification must be submitted initially, and each time a notification of compliance status is required under this subpart. At a minimum, the notification must list—

(i) The methods that were used to determine compliance;

(ii) The results of any monitoring procedures or methods that were conducted;

(iii) The methods that will be used for determining continuing compliance;

(iv) The type and quantity of HAP emitted by your POTW treatment plant;

(v) A description of the air pollution control equipment (or method) for each emission point; and

(vi) Your statement that your POTW treatment plant has complied with this subpart.

(2) You must send this notification before the close of business on the 60th day following the completion of the relevant compliance demonstration activity specified in this subpart.

(b) After you have been issued a title V permit, you must comply with all requirements for compliance status reports contained in your title V permit, including reports required under this subpart. After you have been issued a title V permit, and each time a notification of compliance status is required under this subpart, you must submit the notification of compliance status to the appropriate permitting authority, as described in § 63.1580(d), following completion of the relevant compliance demonstration activity specified in this subpart.

(c) You must comply with the delay of repair reporting required in § 63.1588(a).

(d) If your State has not been delegated authority, you must submit reports to your EPA Regional Office. If your State has been delegated authority, you must submit reports to your delegated State authority, and you must send a copy of each report submitted to the State to your EPA Regional Office. Your EPA Regional Office, at its discretion, may waive this requirement for any reports.

(e) You may apply to the Administrator for a waiver of recordkeeping and reporting requirements by complying with the requirements of § 63.10(f) of subpart A of this part.

(f) If you own or operate a control device used to meet the requirements of § 63.1586(a), you must submit the reports required by § 63.697(b) of subpart DD of this part, including a notification of performance tests; a performance test report; a startup,

US EPA ARCHIVE DOCUMENT

HeinOnline -- 64 Fed. Reg. 57581 1999

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 362 of 492

shutdown, and malfunction report; and a summary report.

(g) To comply with the performance standard specified in § 63.1586(b), you must submit, for approval by the Administrator, an initial report explaining your compliance approach 90 days prior to beginning operation of your new or reconstructed POTW. You must also submit a startup, shutdown, and malfunction report.

General Requirements

§ 63.1591 What are my notification requirements?

(a) If you are subject to this subpart, and your State has not been delegated authority, you must submit notifications to the appropriate EPA Regional Office. If your State has been delegated authority you must submit notifications to your State and a copy of each notification to the appropriate EPA Regional Office. The Regional Office may waive this requirement for any notifications at its discretion.

(b) You must notify the Administrator in writing no later than 120 calendar days after the effective date of this subpart (or within 120 calendar days after your POTW treatment plant becomes subject to the relevant standard), and you must provide the following information:

(1) Your name and address;

(2) The address (*i.e.*, physical location) of your POTW treatment plant;

(3) An identification of these standards as the basis of the notification and your POTW treatment plant's compliance date; and

(4) A brief description of the nature, size, design, and method of operation of your POTW treatment plant, including its operating design capacity and an identification of each point of emission for each HAP, or if a definitive identification is not yet possible, a preliminary identification of each point of emission for each HAP.

(c) You must notify the Administrator if your data show that you are no longer in continuous compliance.

§ 63.1592 Which General Provisions apply to my POTW treatment plant?

Table 1 to this subpart lists the General Provisions (40 CFR part 63, subpart A) which apply to POTW treatment plants.

§ 63.1593 How will the EPA determine if I am in compliance with this subpart?

(a) The Administrator will determine compliance with this subpart by reviewing your reports and records or by inspecting your POTW treatment plant.

(b) If you fail to comply with any or all of the provisions of this subpart, you will be considered in violation of this subpart. For example, failure to perform any or all of the following, specified in § 63.1588, would be a violation: failure to visually inspect the cover on your treatment unit, failure to repair a defect on a treatment unit in use within the specified time period, failure to report a delay in repair, failure to determine your POTW's annual HAP emissions when your new or reconstructed POTW becomes subject to this subpart, failure to demonstrate that your POTW achieves an HAP fraction emitted of 0.014, or failure to demonstrate that your POTW is in continuous compliance with the requirements of § 63.1586(b).

(c) Your POTW treatment plant may be exempted from compliance with this subpart if the President determines that the technology to implement these standards is not available, and that it is in the national security interests of the United States to do so. This exemption may last for up to 2 years at a time and may be extended for additional periods of up to 2 years each.

§ 63.1594 Who enforces this subpart?

If the Administrator has delegated authority to your State, then the State enforces this subpart. If the Administrator has not delegated authority to your State, then the EPA Regional Office enforces this subpart.

§ 63.1595 List of definitions.

Affected source means the group of all equipment that comprise the POTW treatment plant.

Area source means any stationary source of HAP that is not a major source.

Cover means a device that prevents or reduces air pollutant emissions to the atmosphere by forming a continuous barrier over the waste material managed in a treatment unit. A cover may have openings (such as access hatches, sampling ports, gauge wells) that are necessary for operation, inspection, maintenance, and repair of the treatment unit on which the cover is used. A cover may be a separate piece of equipment which can be detached and removed from the treatment unit, or a cover may be formed by structural features permanently integrated into the design of the treatment unit. The cover and its closure devices must be made of suitable materials that will minimize exposure of the waste material to the atmosphere, to the extent practical, and will maintain the integrity of the cover and its closure devices throughout its intended service life.

Fraction emitted means the fraction of the mass of HAP entering the POTW wastewater treatment plant which is emitted prior to secondary treatment. The value is calculated using the following steps:

(1) Determine mass emissions from all equipment up to but not including secondary treatment for each HAP listed in Table 1 to subpart DD of this part;

(2) Sum the HAP emissions (ΣE);

(3) sum the HAP mass loadings (ΣL) in the influent to the POTW wastewater treatment plant; and

(4) Calculate the fraction emitted ($f_e$monthly) using $f_e\text{monthly}=\Sigma E/\Sigma L$.

HAP means hazardous air pollutant(s).

Industrial POTW means a POTW that accepts a waste stream regulated by an industrial NESHAP and provides treatment and controls as an agent for the industrial discharger. The industrial discharger complies with its NESHAP by using the treatment and controls located at the POTW. For example, an industry discharges its benzene-containing waste stream to the POTW for treatment to comply with 40 CFR part 61, Subpart FF—National Emission Standard for Benzene Waste Operations. This definition does not include POTW treating waste streams not specifically regulated under another NESHAP.

Industrial user means a nondomestic source introducing any pollutant or combination of pollutants into a POTW. Industrial users can be commercial or industrial facilities whose wastes enter local sewers.

Non-industrial POTW means a POTW that does not meet the definition of an industrial POTW as defined above.

Publicly owned treatment works (POTW) means a treatment works, as that term is defined by section 112(e)(5) of the Clean Air Act, which is owned by a municipality (as defined by section 502(4) of the Clean Water Act), a State, an intermunicipal or interstate agency, or any department, agency, or instrumentality of the Federal Government. This definition includes any intercepting sewers, outfall sewers, sewage collection systems, pumping, power, and other equipment. The wastewater treated by these facilities is generated by industrial, commercial, and domestic sources. As used in this regulation, the term POTW refers to both any publicly owned treatment works which is owned by a State, municipality, or intermunicipal or interstate agency and therefore eligible to receive grant assistance under the Subchapter II of the Clean Water Act, and any federally owned treatment works as that term is described in section 3023 of the Solid Waste Disposal Act.

HeinOnline -- 64 Fed. Reg. 57582 1999

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/23/2013 Page 363 of 492

ENVIRONMENTAL PROTECTION AGENCY (EPA)

Proposed Rule Stage

Clean Air Act (CAA)

3139. PERFORMANCE WARRANTY AND INSPECTION/MAINTENANCE TEST PROCEDURES

Priority: Substantive, Nonsignificant

Legal Authority: 42 USC 7541; 42 USC 7601

CFR Citation: 40 CFR 51; 40 CFR 85

Legal Deadline: None

Abstract: This action establishes a new short test procedure for use in I/M programs required by the Clean Air Act Amendments of 1990. Vehicles that are tested and failed using this procedure and that meet eligibility requirements established by the act would be eligible for free warranty repair from the manufacturers.

Timetable:

Action	Date	FR Cite
NPRM	06/00/00	
Final Action	01/00/01	

Regulatory Flexibility Analysis Required: No

Small Entities Affected: Businesses

Government Levels Affected: Federal, State, Local

Additional Information: SAN No. 3263

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RIN: 2060–AE20

3140. INSPECTION/MAINTENANCE RECALL REQUIREMENTS

Priority: Substantive, Nonsignificant

Legal Authority: 42 USC 7511(a)(2)(b); 42 USC 7511(a)(2)(b)(2)

CFR Citation: 40 CFR 51

Legal Deadline: None

Abstract: This action specifies requirements for enhanced I/M programs to establish a program to ensure compliance with recall notices. This is pursuant to the Clean Air Act Amendments of 1990.

Timetable:

Action	Date	FR Cite
NPRM	08/00/00	
Final Action	01/00/01	

Regulatory Flexibility Analysis Required: No

Small Entities Affected: Businesses

Government Levels Affected: Federal

Additional Information: SAN No. 3262

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RIN: 2060–AE22

3141. METHOD 301: FIELD VALIDATION OF POLLUTION MEASUREMENT METHODS FOR VARIOUS MEDIA; REVISIONS

Priority: Substantive, Nonsignificant

Legal Authority: 42 USC 7401 et seq; PL 101-549; 42 USC 7410 et seq

CFR Citation: 40 CFR 60; 40 CFR 63

Legal Deadline: None

Abstract: After promulgation of Method 301, questions were raised about the statistical calculations and the procedure for determining the quality of the data. This rule will clarify those rule provisions.

Timetable:

Action	Date	FR Cite
NPRM	06/00/00	
Final Action	09/00/01	

Regulatory Flexibility Analysis Required: No

Small Entities Affected: Governmental Jurisdictions

Government Levels Affected: None

Additional Information: SAN No. 3407

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RIN: 2060–AF00

3142. OPERATING PERMITS: REVISIONS (PART 70)

Priority: Other Significant

Reinventing Government: This rulemaking is part of the Reinventing Government effort. It will revise text in the CFR to reduce burden or duplication, or streamline requirements.

Legal Authority: 42 USC 7661 et seq

CFR Citation: 40 CFR 52; 40 CFR 70; 40 CFR 51

Legal Deadline: None

Abstract: In response to litigation on the operating permits rule regulations, 40 CFR Part 70, to provide more effective implementation of part 70, and to address comments provided in response to notices of proposed rulemaking, parts 70, 51 and 52 are being revised. The changes streamline the procedures for revising stationary-source operating permits issued by State and local permitting authorities under title V of the Clean Air Act.

Timetable:

Action	Date	FR Cite
NPRM	08/29/94	59 FR 44460
Supplemental NPRM Part 71	04/27/95	60 FR 20804
Supplemental NPRM Part 70	08/31/95	60 FR 45530
Direct Final Interim Approval Extension	07/27/98	63 FR 40054
NPRM Interim Approval Extension	07/27/98	63 FR 40053
NPRM	09/00/00	
Final Action	09/00/01	

Regulatory Flexibility Analysis Required: No

Government Levels Affected: State

Additional Information: SAN No. 3412

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RIN: 2060–AF70

3143. AMENDMENTS TO METHOD 24 (WATER-BASED COATINGS)

Priority: Substantive, Nonsignificant

Legal Authority: 42 USC 7410

CFR Citation: 40 CFR 60

Legal Deadline: None

Abstract: The determination of volatile organic compounds (VOCs) content of a surface coating by reference Method 24 involves determination of its water content and calculation of its VOC content as the difference of the two measurements (volatile content minus water content). Method 24 is inherently less precise for water-based coatings than it is for solvent-based coatings and the imprecision increases as water content increases. This action will amend Method 24 by adding a direct measurement procedure for measuring VOC content of water-based coatings. This amendment will improve the

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precision of Method 24 for water-based coatings.

Timetable:

Action	Date	FR Cite
NPRM	08/00/00	
Final Action	08/00/01	

Regulatory Flexibility Analysis Required: No

Small Entities Affected: No

Government Levels Affected: None

Additional Information: SAN No. 3649

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RIN: 2060–AF72

3144. SERVICE INFORMATION AVAILABILITY

Priority: Other Significant

Legal Authority: 42 USC 7521(m)

CFR Citation: 40 CFR 86

Legal Deadline: None

Abstract: This rule will require manufacturers of automobiles to provide necessary information needed to make use of emission control diagnostic systems as well as that needed to make emission-related diagnosis and repairs by any person engaged in the repairing or servicing of motor vehicles or motor vehicle engines. This will allow independent service repair garages, individual owners, parts manufacturers, etc., to have access to emission control information to better service automobiles and ensure clean air compliance requirements.

Timetable:

Action	Date	FR Cite
NPRM	06/00/00	

Regulatory Flexibility Analysis Required: No

Small Entities Affected: No

Government Levels Affected: None

Additional Information: SAN No. 3741

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RIN: 2060–AG13

3145. NSPS: SEWAGE SLUDGE INCINERATORS

Priority: Other Significant. Major status under 5 USC 801 is undetermined.

Reinventing Government: This rulemaking is part of the Reinventing Government effort. It will revise text in the CFR to reduce burden or duplication, or streamline requirements.

Legal Authority: 42 USC 7401-7626

CFR Citation: 40 CFR 63

Legal Deadline: Final, Statutory, November 15, 2000.

Abstract: The Agency has decided not to regulate sewage sludge incinerators as a category under Section 129 of the Clean Air Act. Section 129(a)(1) requires the Agency to establish standards under Section 129 for each category of "solid waste incineration units." "Solid waste incineration unit" is defined as a "distinct operating unit of any facility which combusts any solid waste material from commercial or industrial establishments or the general public (including single and multiple residences, hotels, or motels)." The Agency believes that sewage sludge generated by publicly-owned treatment works (POTWs) and combusted in SSIs is "solid waste." However, this sludge is from a municipal source, and not from "commercial or industrial establishments or the general public." Therefore, SSis that combust this sludge are not "solid waste incineration units" and section 129 does not apply to them. Virtually all of the SSis that would be candidates for regulation combust sludge from POTWs, and thus are not covered under Section 129.

Timetable:

Action	Date	FR Cite
ANPRM	01/14/97	62 FR 1868
Delisting Notice	04/00/00	

Regulatory Flexibility Analysis Required: No

Small Entities Affected: No

Government Levels Affected: State, Local

Additional Information: SAN No. 3819

Sectors Affected: 22132 Sewage Treatment Facilities

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RIN: 2060–AG50

3146. NESHAP: PLYWOOD AND COMPOSITE WOOD PRODUCTS

Priority: Other Significant. Major status under 5 USC 801 is undetermined.

Unfunded Mandates: Undetermined

Legal Authority: 42 USC 7412(d)

CFR Citation: 40 CFR 63

Legal Deadline: NPRM, Statutory, November 15, 2000.
Final, Statutory, November 15, 2000.

Abstract: This project is to develop national emission standards for hazardous air pollutants (NESHAP) by establishing maximum achievable control technology (MACT) for facilities manufacturing wood panels and engineered wood products. MACT standards are under development to reduce the release of hazardous air pollutants (HAP) from all industries to protect the public health and environment. Emissions of HAP from this industry have been associated with, but are not limited to, the drying of wood and binders. The scope of the affected source category has not been determined; however, this rule is anticipated to apply to the manufacture of products involving wood and some kind of binder or bonding agent. This project may include, but is not limited to, facilities that manufacture waferboard, hardboard fiber board (MDF), oriented strandboard (OSB), medium density fiberboard, particleboard, strawboard, hardwood and softwood plywood, glue-laminated lumber, laminated veneer lumber, and engineered wood products. The source category may also include lumber drying kilns at sawmills which are located on the same site as a facility that manufactures any of the wood products mentioned above. The project may also include some coatings operations. The name of the source category was formerly Plywood and Particleboard MACT.

Timetable:

Action	Date	FR Cite
NPRM	10/00/00	
Final Action	12/00/01	

Regulatory Flexibility Analysis Required: Undetermined

Small Entities Affected: Businesses

HeinOnline -- 65 Fed. Reg. 23460 2000

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 365 of 492

Government Levels Affected: Federal, State, Local

Federalism: Undetermined

Additional Information: SAN No. 3820

Sectors Affected: 32121 Veneer, Plywood, and Engineered Wood Product Manufacturing

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RIN: 2060–AG52

3147. NESHAP: MISCELLANEOUS CELLULOSE PRODUCTION

Priority: Substantive, Nonsignificant

Legal Authority: 42 USC 7401 et seq

CFR Citation: 40 CFR 63

Legal Deadline: NPRM, Statutory, November 15, 2000.

Abstract: This project is to develop national emission standards for hazardous air pollutants (NESHAPs) by establishing maximum achievable control technology (MACT) for facilities manufacturing cellulose ether, carboxymethyl cellulose ether, methyl cellulose ether, cellulose food casing, cellulosic sponges, producing rayon, and producing cellophane. MACT standards are under development to reduce the release of hazardous air pollutants (HAP) from all industries to protect the public health and environment. Emissions of HAP from this industry have been associated with, but are not limited to, product washing operations, material storage tanks, and film drying. The scope of the rule has not been determined.

Timetable:

Action	Date	FR Cite
NPRM	04/00/00	
Final Action	04/00/01	

Regulatory Flexibility Analysis Required: No

Small Entities Affected: Businesses

Government Levels Affected: Federal, Local, State

Additional Information: SAN No. 3970

Project combined with SAN 3963

Sectors Affected: 325221 Cellulosic Organic Fiber Manufacturing; 326113 Unsupported Plastics Film and Sheet (except Packaging) Manufacturing

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RIN: 2060–AH11

3148. NESHAP: MUNICIPAL SOLID WASTE LANDFILLS

Priority: Substantive, Nonsignificant

Legal Authority: 42 USC 7401 et seq

CFR Citation: 40 CFR 63

Legal Deadline: Final, Statutory, November 15, 2000.

Abstract: This project is to develop national emission standards for hazardous air pollutants (HAP) by establishing maximum achievable control technology (MACT) for municipal solid waste landfills. MACT standards are under development to reduce the release of HAP from all industries to protect the public health and environment. The scope of the rule has not been determined. This project is now scheduled to start in fiscal year 1998. The initial stage of this project is to gather preliminary information on landfills to establish a presumptive MACT. That work will be followed by development of a regulatory package to propose and promulgate a MACT standard.

Timetable:

Action	Date	FR Cite
NPRM	06/00/00	
Final Action	10/00/01	

Regulatory Flexibility Analysis Required: No

Small Entities Affected: Governmental Jurisdictions

Government Levels Affected: Tribal, State, Local

Federalism: Undetermined

Additional Information: SAN No. 3969

Sectors Affected: 562212 Solid Waste Landfill

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RIN: 2060–AH13

3149. CONSOLIDATED EMISSION REPORTING RULE

Priority: Substantive, Nonsignificant

Legal Authority: 42 USC 7410(a)(2)

CFR Citation: 12 CFR 120.2(d)(4); 40 CFR 51.321 to 51.323

Legal Deadline: Final, Statutory, June 30, 2000.

Abstract: Three sections of the Clean Air Act and its amendments require State agencies to report emission estimates to EPA. Some of these sections contain obsolete wording, inconsistent instructions, and duplicate reporting requirements. This rule will consolidate the requirements into one area, eliminate obsolete wording, eliminate duplicate reporting requirements, and provide options for collecting and reporting data. There will be no impact on small businesses. State agencies will continue to report the same or reduced amounts of data to EPA. The rule will provide for flexibility in collecting and reporting data. There will be no effect on local agencies.

Timetable:

Action	Date	FR Cite
NPRM	04/00/00	
Final Action	11/00/00	

Regulatory Flexibility Analysis Required: No

Small Entities Affected: No

Government Levels Affected: State

Additional Information: SAN No. 3986

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EPA—Clean Air Act (CAA) — Final Rule Stage

Regulatory Flexibility Analysis Required: No

Small Entities Affected: No

Government Levels Affected: None

Additional Information: SAN No. 4282

Federal, State and local governments are affected by the final NOx SIP call. However, this technical amendment will not affect those governments in and of itself.

Legal Deadline: Statutory Other — EPA is under active litigation for the SIP call. In addition, the SIPs submittal due date of 9/30/99 was stayed until further order by the court. The States still need the revised budgets for planning & public hearing purposes.

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RIN: 2060–AI71

3269. PROTECTION OF STRATOSPHERIC OZONE: ALLOCATION OF 2000 ESSENTIAL-USE ALLOWANCES

Priority: Substantive, Nonsignificant

Legal Authority: 42 USC 7671-7671(q); 42 USC 7601; 42 USC 7414

CFR Citation: 40 CFR 82

Legal Deadline: Final, Statutory, January 1, 2000, Publish allocations for year 2000 in Federal Register.

Abstract: This proposed rule will set essential-use allowances for 2000 under the Montreal Protocol on Substances that Deplete the Ozone Layer (Protocol). Essential-use allowances permit a person to obtain controlled ozone-depleting substances, such as chloroflourocarbons (CFCs), as an exemption to the January 1, 1996 regulatory phaseout of production and import. Essential-use allowances are allocated to a person for exempted production or importation of a specific quantity of a controlled substance solely for the designated essential purpose.

Timetable:

Action	Date	FR Cite
NPRM	11/02/99	64 FR 59141
Final Action	04/00/00	

Regulatory Flexibility Analysis Required: No

Government Levels Affected: None

Additional Information: SAN No. 4318

Sectors Affected: 927 Space Research and Technology; 325412 Pharmaceutical Preparation Manufacturing

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RIN: 2060–AI73

3270. AMENDMENTS TO THE AEROSPACE MANUFACTURING AND REWORK FACILITIES NESHAP FOR THE HAP AND VOC CONTENT LIMITS FOR PRIMER OPERATIONS AND STAY OF COMPLIANCE.

Priority: Substantive, Nonsignificant

Legal Authority: 42 USC 7401 et seq

CFR Citation: 40 CFR 63.745(c)(1)-(2)

Legal Deadline: None

Abstract: This rule was promulgated on September 1, 1995 with an initial compliance date of September 1, 1998. EPA granted compliance extensions; however these extensions will expire September 1, 1999. This proposal would stay the compliance date of the substantive and associated compliance assurance requirements for the organic HAP content and VOC content levels for primer applications operations. This proposed stay would remain in effect until the date we amend the rule, at which point we would publish new compliance dates for these requirements. Based on recent information submitted to the us by one of the commercial aircraft manufacturers, expressing significant technical concerns about the ability to achieve the primer coating content standard for commercial exterior primers, we are proposing amendments to the Aerospace National Emissions Standards for Hazardous Air Pollutants (NESHAP) that will change the organic HAP and VOC level content standard related to the use of commercial exterior primers.

Timetable:

Action	Date	FR Cite
NPRM Amendment	01/24/00	65 FR 3642
Final Rule Amendment	06/00/00	

Regulatory Flexibility Analysis Required: No

Small Entities Affected: No

Government Levels Affected: Federal, State

Additional Information: SAN No. 4353

Sectors Affected: 336411 Aircraft Manufacturing

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RIN: 2060–AI77

3271. SOURCE SPECIFIC FEDERAL IMPLEMENTATION PLAN FOR NAVAJO GENERATING STATION; NAVAJO NATION

Priority: Substantive, Nonsignificant

Legal Authority: Not Yet Determined

CFR Citation: 49 CFR 123

Legal Deadline: None

Abstract: EPA proposes to federalize standards from the Arizona and New Mexico State Implementation Plans (SIPS) applicable to the Navajo generating station. Where necessary, EPA's proposed emission standards modify the standards extracted from the States' regulatory programs to ensure comprehensive emission control and Federal consistency.

Timetable:

Action	Date	FR Cite
NPRM	09/08/99	64 FR 48725
Notice	01/26/00	65 FR 4244
Final Action	09/00/00	

Regulatory Flexibility Analysis Required: No

Small Entities Affected: No

HeinOnline -- 65 Fed. Reg. 23500 2000

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 367 of 492

Government Levels Affected: None

Additional Information: SAN No. 4315

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RIN: 2060–AI79

3272. REVISION TO NOX SIP CALL EMISSION BUDGETS FOR CONNECTICUT, MASSACHUSETTS AND RHODE ISLAND

Priority: Substantive, Nonsignificant

Legal Authority: 42 USC 7410(k)(5); 42 USC 7410(a)(2)(D)

CFR Citation: 40 CFR 51

Legal Deadline: None

Abstract: On October 27, 1998, EPA published a final rule (the "OTAG SIP Call") making a finding of significant contribution and assigning statewide NOx emission budgets to 22 States and the District of Columbia for purposes of reducing regional transport of ozone and its precursor, NOx. Subsequent to the promulgation of the SIP call, EPA and the States of Connecticut, Massachusetts and Rhode Island signed a memorandum of understanding that obligated EPA to propose to redistribute the budgets assigned to the three States in a different way. This action carries out that obligation. This redistribution will not lead to an increase in the overall budget for the three States.

Timetable:

Action	Date	FR Cite
Direct Final Action Direct Final Rule	09/15/99	64 FR 49987
Withdraw Dir. Final	11/01/99	64 FR 58792
Final Action	04/00/00	

Regulatory Flexibility Analysis Required: No

Small Entities Affected: No

Government Levels Affected: State

Federalism: Undetermined

Additional Information: SAN No. 4276

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RIN: 2060–AI80

3273. AMENDMENT TO NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS: HALOGENATED SOLVENT CLEANING

Priority: Substantive, Nonsignificant

Legal Authority: 42 USC 7401 et seq

CFR Citation: 40 CFR 63.468(j)

Legal Deadline: None

Abstract: This amendment to the halogenated solvent cleaning NESHAP would permanently exempt batch cold solvent cleaning machines that use halogenated solvent from the Part 71 Federal operating permit program and would defer Part 71 operating permit requirements until December 9, 1999 for all other non-major halogenated solvent cleaning machines. States are already authorized to exempt/defer such sources from their Part 70 operating permit requirements. Without this amendment, non-major halogenated cleaning machines would have to obtain a Part 71 Federal operating permit in areas that do not have Part 70 programs in place. For example, EPA believes that numerous sources located in Indian country would need to submit permit applications by March 2000 and obtain title V permits, absent this rulemaking. This amendment is an administrative action and would have no impact on the enforcement and implementation of the NESHAP itself. There are no compliance costs associated with this action. This action relieves sources of regulatory requirements under the title V program.

Timetable:

Action	Date	FR Cite
NPRM	07/13/99	64 FR 37734
Direct Final Rule	07/13/99	64 FR 37683
Dir Final Withdrawn	10/18/99	64 FR 56173
Final Rule	06/00/00	

Regulatory Flexibility Analysis Required: No

Small Entities Affected: No

Government Levels Affected: None

Additional Information: SAN No. 4275

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RIN: 2060–AI91

3274. REVISION TO METHOD 24 FOR ELECTRICAL INSULATING VARNISHES

Priority: Substantive, Nonsignificant

Legal Authority: 42 USC 7401; 42 USC 7411; 42 USC 7414; 42 USC 7416; 42 USC 7601

CFR Citation: 40 CFR 60 (Revision)

Legal Deadline: None

Abstract: The purpose of this action is to revise Method 24 to allow the use of American Society for Testing and Materials' Method D6053-96 to measure the volatile organic content of electrical insulating varnishes. Method 24 as currently written is not applicable to these types of coatings. This action will ensure consistency in testing these coatings for determining compliance with current regulations. We do not anticipate any impact on small business or State/local/Tribal governments.

Timetable:

Action	Date	FR Cite
Direct Final Rule	06/00/00	

Regulatory Flexibility Analysis Required: No

Small Entities Affected: No

Government Levels Affected: None

Additional Information: SAN No. 4299

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RIN: 2060–AI94

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USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 368 of 492

US EPA ARCHIVE DOCUMENT

3275. • AMENDMENTS TO STATE AND FEDERAL OPERATING PERMITS PROGRAMS, PART 70 AND PART 71, COMPLIANCE CERTIFICATION REQUIREMENTS

Priority: Substantive, Nonsignificant

Legal Authority: 42 USC 7414a; 42 USC 7661-7661f

CFR Citation: 40 CFR 70; 40 CFR 71 (Revisions)

Legal Deadline: Final, Statutory, June 30, 2000.

Abstract: Action is in response to the October 29, 1999, United States Circuit Court of Appeals decision to remand to EPA part of the October 22, 1997, Compliance Assurance Monitoring rulemaking that included revisions to parts 70 and 71 compliance certification requirements. The Court ruled that the compliance certification must address whether the affected facility has been in continuous or intermittent compliance.

Timetable:

Action	Date	FR Cite
Final Action 40 CFR 70 and 71 (Revisions)	09/00/00	

Regulatory Flexibility Analysis Required: No

Small Entities Affected: No

Government Levels Affected: Federal, State, Local, Tribal

Additional Information: SAN No. 4387

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RIN: 2060–AJ04

3276. • DIRECT FINAL AMENDMENTS TO THE POLYETHER POLYOLS NESHAP

Priority: Substantive, Nonsignificant

Legal Authority: 42 USC 7401 et seq

CFR Citation: 40 CFR 63.1420 to 1439 (Revision)

Legal Deadline: None

Abstract: This direct final notice applies to the NESHAP for Polyether Polyols Production issued as a final rule on June 1,1999. This action will correct cross referencing errors; clarify storage vessel monitoring requirements, batch process vent performance testing conditions; make minor revisions; correct printing errors in equations; and reorganize reporting requirements to make them clearer. The notice will also add the control number assigned by OMB under the Paperwork Reduction Act for collection of information required by this regulation. There will be no cost or other impacts resulting from this action since it only corrects or clarifies the rule.

Timetable:

Action	Date	FR Cite
Direct Final Rule	04/00/00	

Regulatory Flexibility Analysis Required: No

Small Entities Affected: No

Government Levels Affected: Federal, State, Local

Additional Information: SAN No. 4384

Sectors Affected: 325199 All Other Basic Organic Chemical Manufacturing

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RIN: 2060–AJ10

3277. • EXTENDING OPERATING PERMITS PROGRAM INTERIM APPROVAL EXPIRATION DATES

Priority: Substantive, Nonsignificant

Legal Authority: 42 USC 7401 et seq

CFR Citation: 40 CFR part 70 (Revision)

Legal Deadline: None

Abstract: This action extends until June 1, 2002 all State and local operating permits program interim approvals. Currently all interim approvals expire on June 1, 2000. Revisions to correct deficiencies in State operating permits program that resulted in their being granted interim approval are due 6 months prior to the interim approval expiration date. Program revisions are, therefore, due by December 1, 1999. Permitting authorities have expressed concern over the resource burden of preparing and submitting a program revision addressing interim approval deficiencies and then revising their program again to address the upcoming revisions to the part 70 operating permits regulations. They have requested the option of combining both program revisions into one submittal, thereby going through the regulatory revision or legislative process only once. The EPA recognizes that this would reduce the resources required to prepare program revisions and that the savings in resources could be spent in the early stages of permit issuance. The provision for allowing States to combine their program revisions was included in the August 31, 1995 notice which proposed revisions to part 70. Due to delays in promulgating the part 70 revisions, the Agency has previously extended interim approvals so they would not expire before the part 70 revisions promulgation date. Expiration of these interim approvals prior to the part 70 revisions would deny those permitting authorities the opportunity to combine program revisions. It now appears that the part 70 revisions will not be promulgated until December 2001. In that all interim approvals will expire before that date, the extension of interim approvals until June 1, 2002 is necessary.

Timetable:

Action	Date	FR Cite
NPRM	02/14/00	65 FR 7333
Direct Final Rule	02/14/00	65 FR 7290
With./Direct Final	04/00/00	
Final Action	05/00/00	

Regulatory Flexibility Analysis Required: No

Small Entities Affected: No

Government Levels Affected: State, Local

Additional Information: SAN No. 4388

Agency Contact: Roger Powell, Environmental Protection Agency, Air and Radiation, MD-12, Research Triangle Park, NC 27711

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USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 369 of 492

EPA-APPROVED TENNESSEE NON-REGULATORY PROVISIONS

Name of nonregulatory SIP provision	Applicable geographic or nonattainment area	State effective date	EPA approval date	Explanation
* * *	*	*	*	*
8-Hour Ozone Maintenance plan for the Montgomery County, Tennessee area.	Montgomery County	08/10/2005	09/22/2005 [Insert first page of publication]	

PART 81—[AMENDED]

■ 1. The authority citation for part 81 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

■ 2. In § 81.318, the table entitled "Tennessee-Ozone (8-Hour Standard)" is amended by revising the entry for "Clarksville-Hopkinsville, TN–KY: Montgomery County" to read as follows:

§ 81.343 Tennessee.

* * * * *

TENNESSEE—OZONE

[8-Hour Standard]

Designated area	Designation [a]		Category/Classification	
	Date [b]	Type	Date [b]	Type
* * *	*	*	*	*
Clarksville-Hopkinsville, TN–KY Area: Montgomery County	October 24, 2005	Attainment.		
* * *	*	*	*	*

[a] Includes Indian Country located in each county or area, except as otherwise specified.
[b] This date is June 15, 2004, unless otherwise noted.

* * * * *

[FR Doc. 05–18953 Filed 9–21–05; 8:45 am]

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 60

[OAR–2003–0119; FRL–7971–9]

RIN 2060–AN31

Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Commercial and Industrial Solid Waste Incineration Units

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule; amendments.

SUMMARY: The EPA has completed its reconsideration of certain regulatory definitions that determine the type of sources subject to EPA's new source performance standards (NSPS) and emission guidelines (EG) for commercial and industrial solid waste incineration (CISWI) units under section 129 of the Clean Air Act (CAA). With this action, EPA is promulgating revised definitions for the terms "solid waste," "commercial or industrial waste," and "commercial and industrial solid waste incineration unit." The final CISWI definitions of these terms promulgated today are consistent with EPA's February 2004 reconsideration proposal in that EPA will continue to identify CISWI units based on whether such units combust waste without energy recovery. However, the revised definitions promulgated today do not include certain regulatory language proposed in February 2004 to include units with only waste heat recovery in the CISWI source category. In a subsequent rulemaking action, EPA intends to propose additional regulatory language to address units with only waste heat recovery and assess the impacts of the inclusion of these units in the CISWI source category. As a result of our action today on the CISWI definitions, it is not necessary to make any corresponding revisions to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Industrial, Commercial, and Institutional Boilers and Process Heaters.

DATES: The final rule is effective September 22, 2005.

ADDRESSES: *Docket:* EPA has established a docket for this action under Docket ID No. OAR–2003–0119. All documents in the docket are listed in the EDOCKET index at *http://www.epa.gov/edocket.* Although listed in the index, some information is not publicly available, *i.e.*, CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically in EDOCKET or in hard copy at the EPA Docket Center (EPA/DC), EPA West Building, Room B102, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the EPA Docket Center is (202) 566–1742.

FOR FURTHER INFORMATION CONTACT: Mr. Brian Shrager, Combustion Group, Emission Standards Division (C439–01), U.S. EPA, Research Triangle Park, North Carolina 27711; telephone number: (919) 541–7689; e-mail address: *shrager.brian@epa.gov.*

SUPPLEMENTARY INFORMATION:

Judicial Review. Under section 307(b)(1) of the CAA, judicial review of the final rule is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia by November 21, 2005. Under section 307(d)(7)(B) of the CAA, only an

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US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 370 of 492

objection to the final rule that was raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under section 307(b)(2) of the CAA, the requirements established by today's final action may not be challenged separately in any civil or criminal proceedings brought by EPA to enforce these requirements.

Organization of This Document. The following outline is provided to aid in locating information in this preamble.

I. General Information
A. Does this action apply to me?
II. Summary of Final Action
III. Background Information
A. Statutory Background
B. Regulatory Background
C. Significance of the Definitions
IV. Final Definitions for the CISWI Rules
V. Response to Public Comments and Significant Changes
A. General Comments on Definitions
B. Comments on the Definition of CISWI Unit
C. Comments on the Definition of Commercial or Industrial Waste
D. Comments on the Definition of Solid Waste
E. Comments on the Rulemaking Process
VI. Relationship to NESHAP for Boilers and Process Heaters
VII. Impacts of the Final Rules
VIII. Future Actions on the Final CISWI Rules
IX. Statutory and Executive Order Reviews
A. Executive Order 12866: Regulatory Planning and Review
B. Paperwork Reduction Act
C. Regulatory Flexibility Act
D. Unfunded Mandates Reform Act
E. Executive Order 13132: Federalism
F. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments
G. Executive Order 13045: Protection of Children from Environmental Health and Safety Risks
H. Executive Order 13211: Actions that Significantly Affect Energy Supply, Distribution or Use
I. National Technology Transfer Advancement Act
J. Congressional Review Act

I. General Information

A. Does This Action Apply to Me?

Regulated Entities. The CISWI rules potentially affect the following categories of sources:

Category	NAICS code	SIC code	Examples of potentially regulated entities
Any industry using a solid waste incinerator as defined in the regulations.	325	28	Manufacturers of chemicals and allied products.
	335	36	Manufacturers of electronic equipment.
	421	50	Manufacturers of wholesale trade, durable goods.
	321, 337	24, 25	Manufacturers of lumber and wood furniture.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists examples of the types of entities that could be affected by this action. Other types of entities not listed in this table could also be affected. To determine whether your facility, company, or business organization is regulated by this action, you should examine the final definitions of "solid waste," "commercial or industrial waste," and "commercial and industrial solid waste incineration unit" in this action and the applicability criteria in 40 CFR 60.2010 through 60.2025, subpart CCCC, and 40 CFR 60.2505 and 60.2550 through 60.2558, subpart DDDD.

Docket. The docket number for this action is OAR–2003–0119.

Worldwide Web (WWW). In addition to being available in the docket, an electronic copy of the notice of final rules is available on the WWW through the Technology Transfer Network Web site (TTN Web). Following signature, EPA will post a copy of the notice of final rules on the TTN's policy and guidance page for newly proposed or promulgated rules at *http://www.epa.gov/ttn.* The TTN provides information and technology exchange in various areas of air pollution control.

II. Summary of Final Action

By this action, EPA concludes the reconsideration process on the December 2000 final CISWI rules that it initiated in February 2004, in response to a petition for reconsideration submitted pursuant to section 307(d)(7)(B) of the CAA. Specifically, the EPA has concluded its reconsideration of several definitions that determine which types of sources are subject to the NSPS and EG for CISWI units under section 129 of the CAA.

EPA promulgated the definitions in the final rules for CISWI units on December 1, 2000. Subsequent to promulgation of the final CISWI rules, the Agency granted a petition for reconsideration related to the definitions of "commercial and industrial waste" and "commercial and industrial solid waste incineration unit" in the CISWI final rules. EPA solicited public comments on revised definitions for these terms and the definition of "solid waste" in a notice published in the **Federal Register** on February 17, 2004. (See 69 FR 7390.) In that notice, we requested comments on the approach we used in the December 2000 final rules to identify CISWI units based on whether the unit was combusting solid waste without energy recovery. We also proposed to include units with only waste heat recovery in the CISWI source category to fill a gap between our CISWI rules and our NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters promulgated under CAA section 112.

In addition, after promulgation of the final CISWI rules in 2000, EPA accepted a voluntary remand, without vacature, in response to a petition for review challenging the rules. Because the final rules were not vacated, the requirements of the final CISWI rules remain in effect during the remand. In a future rulemaking action on the remand, we will reconsider the emissions limitations for CISWI units in accordance with guidelines set forth in a related court decision pertaining to hazardous waste combustors which was issued after we promulgated the final CISWI rules. However, before we may complete the rulemaking action on remand, it is necessary to resolve the issues raised in the petition for reconsideration that potentially affect the scope of the CISWI source category. This is because EPA must consider the emissions of the best performing sources in the source category to determine the applicable emissions limitations. Thus, we are announcing today our final decision after reconsidering the definitions that determine the scope of the CISWI source category so that we may focus on the relevant sources in our rulemaking action on the remand. Today's action amends the final rules to incorporate new definitions of "solid waste," "commercial or industrial waste," and "commercial and industrial solid waste incineration unit." In the discussion below, we set forth and explain the language in the new definitions.

The definitions we are promulgating today are nearly the same as those

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US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 371 of 492

proposed on February 17, 2004. (See 69 FR 7396.) However, in response to comments received, we clarified the proposed definition of "commercial or industrial waste" and made editorial changes to other definitions to reduce repetition among the definitions and to better express our intent.

In addition, we removed the term "waste heat recovery" from the proposed definition of "commercial or industrial waste" and are not adopting a final definition of "waste heat recovery" at this time. We intend to propose additional language to address units with only waste heat recovery and to assess the impacts of including such sources in the CISWI source category during completion of our rulemaking action in response to the voluntary remand. At that time, EPA will also address several other issues relevant to the remand, such as the emissions limitations for the CISWI source category.

The revisions to the definitions adopted today are not intended to change the existing scope [1] of the CISWI source category. After further review on reconsideration, EPA continues to believe that the key consideration in determining whether a unit is burning commercial or industrial waste is the primary function of the combustion unit and that the primary indicator of function is whether or not a unit is designed and operated for energy recovery. We define energy recovery as the recovery of heat (thermal energy) for a useful purpose. Thus, we are not amending the definition of "energy recovery" that we promulgated in the December 2000 final CISWI rules.

Today's action also addresses a related question of whether EPA should amend regulations that determine the scope of the NESHAP for the Industrial, Commercial, and Institutional Boilers and Process Heaters source category (boilers NESHAP). Those regulations (40 CFR part 63, subpart DDDDD) were promulgated under CAA section 112. (See 69 FR 55218, September 13, 2004.) We determined that conforming amendments to the boilers NESHAP are not necessary because the definitions of "boilers" and "process" heaters in that rule are consistent with the CISWI definitions we are announcing today.

[1] The inclusion of waste heat recovery sources would change the scope of the CISWI source category if we take final action to include such sources in the CISWI source category in our response to the voluntary remand.

III. Background Information

A. Statutory Background

Section 129 of the CAA, entitled "Solid Waste Combustion," requires EPA to promulgate emissions standards and other requirements for "each category of solid waste incineration units" (42 U.S.C. 7429(a)(1)). Section 129(a)(1) of the CAA identifies five categories of solid waste incineration units:

(1) Units with a capacity of greater than 250 tons per day combusting municipal waste;

(2) Units with a capacity equal to or less than 250 tons per day combusting municipal waste;

(3) Units combusting hospital, medical and infectious waste;

(4) Units combusting commercial or industrial waste; and

(5) Unspecified "other categories of solid waste incineration units."

For each category of incineration unit identified under CAA section 129, EPA must establish numerical emission limits for at least nine specified pollutants (particulate matter (PM), sulfur dioxide (SO_2), hydrogen chloride (HCl), oxides of nitrogen (NO_X), carbon monoxide (CO), lead (Pb), cadmium (Cd), mercury (Hg), and dioxins and dibenzofurans) and for opacity as appropriate. Section 129 provides EPA with the discretion to establish emissions limitations for other pollutants as well.

Section 129 of the CAA directs EPA to set maximum achievable control technology (MACT) type standards for incinerators. EPA's standards under section 129 must "reflect the maximum degree of reduction in emissions of air pollutants listed under section (a)(4) (identified above) that the Administrator, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable for new or existing units in each category." (See CAA section 129(a)(2).) However, the standards for new units must not be "less stringent than the emissions control that is achieved in practice by the best controlled similar unit," and the standards for existing sources must not be "less stringent than the average emissions limitation achieved by the best performing 12 percent of units in the category." (See CAA section 129(a)(2).)

In addition, the statute provides some guidance on which units EPA should and should not regulate under CAA section 129. However, the statute does not define "commercial or industrial waste." Section 129(g)(1) of the CAA defines the term "solid waste incineration unit" as a unit "which combusts any solid waste material from commercial or industrial establishments or the general public." Section 129(g)(1) also identifies several types of units that are not solid waste incineration units, including units required to have a permit under section 3005 of the Solid Waste Disposal Act (SWDA); materials recovery facilities; certain qualifying small power production facilities or qualifying cogeneration facilities which burn homogeneous waste; and certain air curtain incinerators that meet opacity limitations established by EPA.

Furthermore, CAA section 129(g)(6) states that the term "solid waste * * * shall have the meanings established by the Administrator pursuant to the Solid Waste Disposal Act." Finally, CAA section 129(h) states that "no solid waste incineration unit subject to performance standards under this section and section 111 shall be subject to standards under section 112(d) of this Act."

B. Regulatory Background

One important part of EPA's rulemaking process is determining what universe of sources will be subject to regulation. With regard to CISWI units, the statutory provisions of CAA sections 129(a), (g) and (h) collectively provide that EPA must determine, as a part of the regulatory process, which combustion units should be subject to regulation under section 129. Section 129 does not resolve this question, but it does provide some important guiding principles. For example, section 129(g)(1) provides that a solid waste incineration unit does not include incinerators or other units required to have a permit under section 3005 of the SWDA, which includes any units burning hazardous solid wastes. This statutory language effectively limits the scope of EPA's authority under section 129 to the regulation of solid waste incineration units that burn nonhazardous solid waste. Similarly, the language of section 129(h) makes clear the Congressional intent for EPA to regulate nonhazardous combustion sources under either section 129 or section 112, but not both. Thus, for the CISWI source category, in particular, EPA must determine which sources are commercial and industrial solid waste incineration units under section 129, and which combustion units are subject to section 112, such as boilers and process heaters.

The EPA proposed regulations for CISWI units on November 30, 1999. (See 64 FR 67092.) The proposal included

HeinOnline -- 70 Fed. Reg. 55570 2005

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2013 Page 372 of 492

emissions limitations and a detailed definition of "solid waste" that was intended to distinguish between nonhazardous solid wastes and other materials (*e.g.*, hazardous solid waste and fuel) burned in combustion units at commercial or industrial facilities. The definition served to identify those units that would be considered commercial and industrial nonhazardous solid waste incineration units, and, therefore, subject to the proposed regulations. In addition, consistent with CAA section 129(h), these definitions also helped to identify those units which would not be subject to emission standards under CAA section 112.

After receiving public comment, EPA determined that the 1999 proposed definition of "solid waste" was unworkable for purposes of identifying CISWI units. Instead of adopting the proposed definition of "solid waste," EPA adopted a general definition of "solid waste" that closely mirrored the definition of solid waste found at section 6903(27) of the SWDA and in several places in EPA's regulations under that statute. (See 65 FR 75338, December 1, 2000.) EPA also adopted more specific definitions of "commercial and industrial waste" and "commercial and industrial solid waste incineration unit," to identify more precisely those units at commercial and industrial facilities covered by the final CISWI rules.

Under the December 2000 final CISWI rules, a material burned at a commercial or industrial facility in a combustion unit without energy recovery is a commercial or industrial waste, and the unit is subject to the CISWI rules. However, a material burned at a commercial or industrial facility in a combustion unit with energy recovery is not considered a commercial and industrial waste, nor is the combustion unit considered a commercial and industrial solid waste incineration unit for purposes of the CISWI rules.[2]

After promulgation of the final CISWI rules, EPA received a petition for reconsideration of the final rules. The petition argued that the final rules were procedurally defective because EPA had failed to provide adequate notice and an opportunity to comment on the definitions adopted in the final rulemaking. Additionally, an environmental organization filed a petition for review in the U.S. Court of Appeals for the D.C. Circuit. Furthermore, after promulgation of the final CISWI rules, the D.C. Circuit issued its decision in *Cement Kiln Recycling Coalition* v. *EPA*, 255 F.3d 855 (D.C. Cir. 2001). In this decision, the Court rejected certain common elements of EPA's MACT methodology. As a result, EPA requested a voluntary remand of the final CISWI rules, in order to address concerns related to the issues that the Court had raised in the Cement Kiln decision.

The EPA granted the petition for reconsideration on the definitional issues. On February 17, 2004 (69 FR 7390), EPA initiated proceedings on the definitional issues by publishing a notice to solicit comments on revisions to the definitions of "solid waste," "commercial or industrial waste," and "commercial and industrial solid waste incineration unit" and a new definition of the term "waste heat recovery." The February 17, 2004 notice proposed the following definitions:

Solid waste means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1342), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2014).

Commercial or industrial waste means solid waste (as defined in this subpart) combusted for reasons that do not include the recovery of heat for a useful purpose, or combusted without heat recovery or with only waste heat recovery (*i.e.*, no heat recovery in the combustion firebox), in an enclosed unit using controlled flame combustion that is a distinct operating unit of any commercial or industrial facility (including field-erected, modular, and custom built incineration units operating with starved or excess air); or solid waste combusted in an air curtain incinerator that is a distinct operating unit of any commercial or industrial facility.

Commercial and industrial solid waste incineration (CISWI) unit means any combustion unit that combusts commercial or industrial waste (as defined in this subpart), that is a distinct operating unit of any commercial or industrial facility (including field-erected, modular, and custom built incineration units operating with starved or excess air), and any air curtain incinerator that is a distinct operating unit of any commercial or industrial facility that does not comply with the opacity limits under this subpart applicable to air curtain incinerators burning commercial or industrial waste. While not all CISWI units will include all of the following components, a CISWI unit includes, but is not limited to, the commercial or industrial solid waste feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The CISWI unit does not include air pollution control equipment or the stack. The CISWI unit boundary starts at the commercial or industrial waste hopper (if applicable) and extends through two areas: (1) The combustion unit flue gas system, which ends immediately after the last combustion chamber or after the waste heat recovery equipment, if any; and (2) The combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. The CISWI unit includes all ash handling systems connected to the bottom ash handling system. A CISWI unit does not include any of the fifteen types of units described in section 60.2555 of this subpart, nor does it include any combustion turbine or reciprocating internal combustion engine.

Waste heat recovery means the process of recovering heat from the combustion flue gases by convective heat transfer only.

These definitions were similar to the definitions in the December 1, 2000 final CISWI rules, except that we proposed that materials combusted at commercial or industrial facilities in units with only waste heat recovery would be considered commercial or industrial waste and that such units would become subject to the CISWI rules. This proposed change addressed an unintended regulatory gap where units with only waste heat recovery were not covered by CAA section 112 boilers NESHAP or by the CISWI rules. The statutory and regulatory background and rationale for the proposed changes to the definitions are fully described in the February 17, 2004 notice of proposed rule and solicitation of comments. (See 69 FR 7390.)

The action published today summarizes and responds to public comments received in response to the February 17, 2004 notice and announces EPA's final decisions on the definitions of "solid waste," "commercial or industrial waste," and "commercial and industrial solid waste incineration (CISWI) unit" for the CISWI rules. The specific wording of the final definitions

[2] In addition, EPA adopted a number of specific exemptions and additional definitions in the final CISWI rules, to ensure that the emissions limitations did not apply to units that should not be considered commercial and industrial solid waste incineration units. These exemptions and definitions served to identify and exempt: (1) Pathological solid waste incineration units; (2) agricultural solid waste incineration units: (3) municipal solid waste incineration units; (4) hospital, medical and infectious solid waste incineration units; (5) qualifying small power production facilities; (6) qualifying cogeneration facilities; (7) hazardous solid waste incineration units; (8) material recovery units; (9) certain air curtain incinerators; (10) cyclonic barrel burners; (11) rack, part, and drum reclamation units; (12) cement kilns; (13) sewage sludge incinerators; (14) chemical recovery units; and (15) laboratory analysis units.

HeinOnline -- 70 Fed. Reg. 55571 2005

US EPA ARCHIVE DOCUMENT

USCA Case #11-1181 Document #1401068 Filed: 10/22/2013 Page 373 of 492

is printed later in this action. EPA is amending the CISWI rules such that the final definitions will take effect immediately. EPA is not taking final action today, however, on the February 2004 proposed addition of certain regulatory language concerning waste heat recovery units. EPA currently intends to propose additional language to amend the CISWI rules to cover units with only waste heat recovery when we take final action in response to the voluntary remand of the CISWI rules.

C. Significance of the Definitions

The definitions of "solid waste," "commercial or industrial waste," and "commercial and industrial solid waste incineration unit" define the scope of applicability of the final CISWI rules. Since any unit regulated under CAA section 129 cannot be subject to any rule developed under CAA section 112, these definitions also help to clarify the scope of applicability of certain other rules that EPA has or will develop for other types of combustion units.

In this case, combustion units that are not covered by the final CISWI rules may be subject to regulation, for example, under the boilers NESHAP (40 CFR part 63, subpart DDDDD).[3] Many of the combustion units at commercial or industrial facilities (*e.g.*, boilers or steam generating units, process heaters, furnaces, and incinerators) burn "solid" materials. If the solid materials in question are covered by the definition of "commercial or industrial waste," the units will be regulated as CISWI units under CAA section 129. Conversely, if the materials are not covered by the definition of "commercial or industrial waste" or if these materials are hazardous solid waste or solid materials burned for chemical or material recovery, the units will be regulated under CAA section 112 or other statutory authority.

The process of determining the regulatory dividing line between different rules is not unique to CISWI. Nor does the identification of the scope of one rule necessarily define the scope of another or preclude EPA from adjusting the regulatory division in a subsequent rule.

IV. Final Definitions for the CISWI Rules

For purposes of the CISWI rules, we are amending the definitions of the terms "solid waste," "commercial or industrial waste," and "commercial and industrial solid waste incineration (CISWI) unit" as follows:

Solid waste means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1342), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2014).

Commercial or industrial waste means solid waste (as defined in this subpart) that is combusted at any commercial or industrial facility using controlled flame combustion in an enclosed, distinct operating unit: (1) Whose design does not provide for energy recovery (as defined in this subpart); or (2) operated without energy recovery (as defined in this subpart). Commercial or industrial waste also means solid waste (as defined in this subpart) combusted in an air curtain incinerator that is a distinct operating unit of any commercial or industrial facility.

Commercial and industrial solid waste incineration (CISWI) unit means any combustion unit that combusts commercial or industrial waste (as defined in this subpart), that is a distinct operating unit of any commercial or industrial facility (including field-erected, modular, and custom built incineration units operating with starved or excess air), and any air curtain incinerator that is a distinct operating unit of any commercial or industrial facility that does not comply with the opacity limits under this subpart applicable to air curtain incinerators burning commercial or industrial waste. While not all CISWI units will include all of the following components, a CISWI unit includes, but is not limited to, the commercial or industrial solid waste feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The CISWI unit does not include air pollution control equipment or the stack. The CISWI unit boundary starts at the commercial or industrial waste hopper (if applicable) and extends through two areas: (1) The combustion unit flue gas system, which ends immediately after the last combustion chamber or after the waste heat recovery equipment, if any; and (2) the combustion unit bottom ash system, which ends at the truck loading station or similar equipment that transfers the ash to final disposal. The CISWI unit includes all ash handling systems connected to the bottom ash handling system. A CISWI unit does not include any of the fifteen types of units described in section 60.2555 of this subpart, nor does it include any combustion turbine or reciprocating internal combustion engine.

The EPA will continue to define the term "energy recovery" as follows:

Energy recovery means the process of recovering thermal energy from combustion for useful purposes such as steam generation or process heating.

The major differences between the definitions we are promulgating today for the CISWI rules and those proposed on February 17, 2004 (69 FR 7396), are that we have removed the language in the proposed definition of "commercial or industrial waste" that served to include units with only waste heat recovery in the CISWI source category, and we are not promulgating the definition of "waste heat recovery" at this time. We are not taking final action today on these changes because we have not yet had an opportunity to assess the impacts of including units with waste heat recovery in the CISWI rules. An impacts assessment is necessary, but is best done when we respond to the CISWI remand and can perform comprehensive analyses that address the addition of waste heat recovery units, any questions on the applicability of the CISWI rules raised by promulgation of the CAA section 129 rules for the other solid waste incineration (OSWI) source category, and the remand issues regarding determination of the MACT floor and emission limits. When we respond to the remand of the CISWI rules, we currently plan to propose additional regulatory language to address units with only waste heat recovery and to provide opportunity for additional comment on the inclusion of these units in the CISWI source category.

Otherwise, as explained further below, we made editorial changes to the definition of "commercial or industrial waste" and other definitions to reduce repetition among the definitions and better express our intent. For example, we use the term "energy recovery" in the final definition of "commercial or industrial waste" to incorporate our existing definition rather than repeating the words "recovery of heat for a useful purpose."

V. Response to Public Comments and Significant Changes

Twelve public comment letters were received from a wide variety of sources, consisting mainly of government agencies, environmental organizations, industry and utility associations, and owner/operators of incinerators and

[3] Alternatively, such units might be subject to regulation under any number of other EPA regulations, including, for example, regulations promulgated pursuant to CAA section 112(c)(3) and (k) to control emissions from industrial, commercial and institutional boilers that are area sources and various other regulations developed under section 112 which cover combustion units burning solid materials to recover their chemical or other material constituents (*e.g.*, black liquor boilers or furnaces at kraft pulp mills covered under the national emission standards for hazardous air pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills).

US EPA ARCHIVE DOCUMENT

HeinOnline -- 70 Fed. Reg. 55572 2005

USCA Case #11-1131 Document #1401008 Filed: 10/22/2013 Page 374 of 492

other types of facilities. The most significant comments are summarized and addressed below. Other significant comments are summarized and addressed in a comment and response document contained in the docket.

A. General Comments on Definitions

Comment: One commenter stated that EPA's attempts to fabricate ambiguity in CAA section 129 are without merit. The commenter stated that, regardless of whether EPA has discretion to draw the line between different types of solid waste combustion units, the agency does not have the discretion to exempt any such units from regulation under section 129 (except for those expressly enumerated in section 129(g)(1)). The commenter added that, contrary to EPA's claim, the critical question is not whether a unit "is designed and operated to recover heat for a useful purpose," but, rather, "does the unit combust solid waste?" Finally, the commenter added that, read as a whole, section 129 requires that the CISWI rules must apply to all combustion units that burn waste from commercial and industrial facilities. The commenter contended that EPA's narrow definitions of "commercial or industrial waste" and "commercial and industrial solid waste incineration unit" unlawfully exempt the majority of CISWI units from regulation under section 129. The commenter also pointed out that most CISWI units fall below the major source threshold established in CAA section 112(a). The commenter viewed EPA's definitions in the CISWI rules as an attempt to regulate many sources under section 112 instead of regulating all sources under section 129. Section 112 requires emissions standards based on generally available control technology (GACT) for non-major sources.

Response: EPA disagrees with the commenter. Contrary to the commenter's assertion, CAA section 129 is ambiguous because it does not contain definitions of certain terms. The EPA has reasonably interpreted section 129 in establishing the regulatory definitions described in this action. The statutory provisions of sections 129(a), (g), and (h) of the CAA collectively call for EPA to determine, as part of the regulatory process, which combustion units should be subject to regulation under section 129. Section 129 of the CAA directs EPA to promulgate standards under section 111 applicable to "solid waste incineration units combusting commercial or industrial waste". (See 42 U.S.C. 7429(a)(1)(D).) However, section 129 does not define commercial or industrial waste. Inherent in EPA's implementation of this statutory provision is the discretion to reasonably define what constitutes this undefined type of solid waste. Furthermore, CAA section 129(h) provides that nonhazardous combustion sources shall not be regulated under both section 129 and section 112. Thus, for the CISWI rules, EPA must determine which types of sources are included in the CISWI source category.

The distinction between CISWI units and non-CISWI combustion units is not readily apparent. For example, there is general agreement that burning coal in a coal-fired boiler is not commercial or industrial waste, because coal is commonly thought of as a fuel. However, there are many other materials that are burned in commercial and industrial boilers for energy recovery. Such materials include wood, other biomass, bagasse burned in boilers at sugar plants to produce the heat needed to refine sugar from sugar cane, and many other materials generated as part of commercial or manufacturing activities. When these materials are burned in a boiler to recover heat for a useful purpose, it is reasonable to consider these materials, like coal, to be a fuel and distinct from commercial and industrial solid waste. Combustion of such materials, when burned in a boiler that recovers energy for a useful purpose, is not considered waste combustion and is appropriately addressed under CAA section 112 regulations for boilers (*e.g.*, the boilers NESHAP and area source boilers standards). On the other hand, if materials were burned in a combustion unit without heat recovery, the combustion would serve no useful purpose other than destruction or disposal of an unwanted material, and EPA would then consider it appropriate to identify the material as a commercial or industrial waste and regulate the combustion unit under CAA section 129 as a CISWI unit.

In addition, many units that are designed and operated for energy recovery and predominantly burn materials that are widely considered fuels will occasionally fire small amounts of other materials in these units that could be considered waste in some circumstances. However, these units continue to recover energy from the combustion of these additional materials. Thus, it is not immediately clear how EPA should classify such units that are designed and operated for energy recovery but occasionally combust waste-like materials.

EPA has determined that for purposes of the final CISWI rules, the critical consideration in determining whether the unit is burning commercial or industrial waste is the primary function of the combustion unit; and the primary indicator of function is whether or not a unit is designed and operated to recover energy for a useful purpose. Accordingly, we are promulgating definitions of "commercial or industrial waste" and "CISWI unit" to include in the CISWI rules units whose design does not provide for energy recovery or that are operated without energy recovery. We continue to define energy recovery as the recovery of heat (thermal energy) for a useful purpose. The revised definition of "commercial or industrial waste" does not change the existing scope of the CISWI source category, but contains editorial revisions to more clearly express our intent, as described further below.

The determination that units (such as boilers) that recover energy for a useful purpose are not subject to the final CISWI rules does not exclude them from regulation. As noted earlier, EPA has already regulated commercial and industrial boilers and process heaters located at major sources under 40 CFR part 63, subpart DDDDD (the boilers NESHAP). EPA is addressing commercial and institutional boilers and process heaters located at area sources under the CAA section 112 area source boilers standards, currently under development. Additionally, other categories of specialty combustion units, such as hazardous waste combustors and cement kilns are regulated under separate section 112 NESHAP. Section 112 addresses hazardous air pollutants such as hazardous metals, organic compounds, and HCl.

Comment: One commenter pointed out that despite EPA's claim that it has "considerable discretion to regulate a variety of sources as solid waste incinerators," CAA section 129(a)(1) requires EPA to "establish performance standards and other requirements pursuant to section 7411 of this title and this section for each category of solid waste incineration units." (See 42 U.S.C. 7429(a)(1)(A) (emphasis added).) The commenter believes these categories are very broad, based on language in section 129(g)(1), which defines "solid waste incineration unit" to mean "a distinct operating unit of any facility which combusts any solid waste material from commercial or industrial establishments." (See 42 U.S.C. 7429(g)(1).) The commenter also argued that the text of section 129 shows that Congress expressly considered the issue of whether to regulate heat recovery units under section 129 by providing only limited, specific exemptions. Thus, according to the commenter's

HeinOnline -- 70 Fed. Reg. 55573 2005

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 375 of 492

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 60

[EPA–HQ–OAR–2003–0156; FRL–8005–5]

RIN 2060–AG31

Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Other Solid Waste Incineration Units

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: EPA is promulgating new source performance standards (NSPS) and emission guidelines for new and existing "other" solid waste incineration units (OSWI). The final rules for OSWI units fulfill the requirements of sections 111 and 129 of the Clean Air Act (CAA), which require EPA to promulgate NSPS and emission guidelines for solid waste incineration units. The final rules, which address only the incineration of nonhazardous solid wastes, will protect public health by reducing exposure to air pollution.

DATES: Amendments to § 60.17 are effective February 14, 2006. The standards for new sources in subpart EEEE of 40 CFR part 60 (sections 60.2880 through 60.2977) are effective June 16, 2006. The incorporation by reference of certain publications listed in the NSPS is approved by the Director of the Federal Register as of June 16, 2006. The emission guidelines for existing sources in subpart FFFF of 40 CFR part 60 (sections 60.2980 through 60.3078) are effective February 14, 2006. The incorporation by reference of certain publications listed in the emission guidelines is approved by the Director of the Federal Register as of February 14, 2006.

ADDRESSES: Docket. EPA has established a docket for this action under Docket ID No. EPA–HQ–OAR–2003–0156. All documents in the docket are listed on the *http://www.regulations.gov* Web site. Although listed in the index, some information is not publicly available, *i.e.*, confidential business information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through *http://www.regulations.gov* or in hard copy at EPA Docket Center (EPA/DC), EPA West Building, Room B102, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the EPA Docket Center is (202) 566–1742.

FOR FURTHER INFORMATION CONTACT: Ms. Mary Johnson, Combustion Group, Emission Standards Division (C439–01), U.S. EPA, Research Triangle Park, North Carolina 27711; telephone number: (919) 541–5025; e-mail address: *johnson.mary@epa.gov*.

SUPPLEMENTARY INFORMATION:

Regulated Entities. Categories and entities potentially regulated by the final rules are very small municipal waste combustion (VSMWC) units and institutional waste incineration (IWI) units. The final OSWI emission guidelines and NSPS potentially affect the following categories of sources:

Category	NAICS code	SIC code	Examples of potentially regulated entities
Any State, local, or Tribal government using a VSMWC unit as defined in the regulations.	562213, 92411	4953, 9511	Solid waste combustion units burning municipal waste collected from the general public and from residential, commercial, institutional, and industrial sources.
Institutions using an IWI unit as defined in the regulations.	922, 6111, 623, 7121	9223, 8211, 7999	Correctional institutions, primary and secondary schools, camps and national parks.
Any Federal government agency using an OSWI unit as defined in the regulations.	928	9711	Department of Defense (labs, military bases, munitions facilities).
Any college or university using an OSWI unit as defined in the regulations.	6113, 6112	8221, 8222	Universities, colleges and community colleges.
Any church or convent using an OSWI unit as defined in the regulations.	8131	8661	Churches and convents.
Any civic or religious organization using an OSWI unit as defined in the regulations.	8134	8641	Civic association and fraternal associations.

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by the final rules. To determine whether your facility is regulated by the final rules, you should examine the applicability criteria in the NSPS for new sources located at 40 CFR 60.2885 through 60.2888 of subpart EEEE, and in the emission guidelines for existing sources located at 40 CFR 60.2991 through 60.2994 of subpart FFFF. If you have any questions regarding the applicability of the final rules to a particular entity, contact the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

Docket. The docket number for the final NSPS (40 CFR part 60, subpart EEEE) and emission guidelines (40 CFR part 60, subpart FFFF) is Docket ID No. EPA–HQ–OAR–2003–0156.

Worldwide Web (WWW). In addition to being available in the docket, an electronic copy of the final rules is available on the WWW through the Technology Transfer Network Website (TTN Web). Following signature, EPA will post a copy of the final rules on the TTN's policy and guidance page for newly proposed or promulgated rules at *http://www.epa.gov/ttn/oarpg*. The TTN provides information and technology exchange in various areas of air pollution control.

Judicial Review. Under CAA section 307(b)(1), judicial review of the final rules is available only by filing a petition for review in the U.S. Court of Appeals for the District of Columbia by February 14, 2006. Under CAA section 307(d)(7)(B), only an objection to the final rules that was raised with reasonable specificity during the period for public comment can be raised during judicial review. Moreover, under CAA section 307(b)(2), the requirements established by today's final action may not be challenged separately in any civil or criminal proceedings brought by EPA to enforce these requirements.

Section 307(d)(7)(B) of the CAA further provides that "[o]nly an objection to a rule or procedure which was raised with reasonable specificity during the period for public comment (including any public hearing) may be raised during judicial review." This section also provides a mechanism for the EPA to convene a proceeding for

HeinOnline -- 70 Fed. Reg. 74870 2005

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 376 of 492

reconsideration, "[i]f the person raising an objection can demonstrate to the EPA that it was impracticable to raise such objection within [the period for public comment] or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule." Any person seeking to make such a demonstration to the EPA should submit a Petition for Reconsideration to the Office of the Administrator, U.S. EPA, Room 3000, Ariel Rios Building, 1200 Pennsylvania Ave., NW., Washington, DC 20460, with a copy to both the person(s) listed in the preceding **FOR FURTHER INFORMATION CONTACT** section, and the Director of the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), U.S. EPA, 1200 Pennsylvania Ave., NW., Washington, DC 20004.

Organization of This Document. The following outline is provided to aid in locating information in this preamble.

I. Background
II. Summary of the Final Rules
A. Do the final rules apply to me?
B. What emission limits must I meet?
C. What operating limits must I meet?
D. What are the other requirements?
E. What are the requirements for air curtain incinerators?
F. What title V permit requirements must I meet?
III. What are the changes to the rules since proposal?
IV. Significant Issues and Changes-Public Comments
A. Applicability
B. Definitions
C. MACT Floors and Emission Limits
D. Title V Operating Permits
E. Testing
F. Impacts
V. Impacts of the Final Rules
A. What are the impacts for new units?
B. What are the impacts for existing units?
VI. Statutory and Executive Order Reviews
A. Executive Order 12866, Regulatory Planning and Review
B. Paperwork Reduction Act
C. Regulatory Flexibility Act
D. Unfunded Mandates Reform Act
E. Executive Order 13132: Federalism
F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments
G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks
H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution or Use
I. National Technology Transfer Advancement Act
J. Congressional Review Act

I. Background

Section 129 of the CAA, entitled "Solid Waste Combustion," requires EPA to develop and adopt NSPS and emission guidelines for solid waste incineration units pursuant to CAA section 111. Section 111(b) of the CAA requires EPA to establish NSPS for new sources, and CAA section 111(d) requires EPA to establish procedures for States to submit plans for implementing emission guidelines for existing sources. Under CAA section 111, NSPS and emission guidelines must be developed for new and existing stationary sources that cause or contribute significantly to air pollution that may reasonably be anticipated to endanger public health or welfare.

Congress specifically added section 129 to the CAA to address concerns about emissions from solid waste combustion units. Section 129(a)(1) of the CAA identifies five categories of solid waste incineration units:

(1) Units with a capacity of greater than 250 tons per day (tpd) combusting municipal waste;

(2) Units with a capacity equal to or less than 250 tpd combusting municipal waste;

(3) Units combusting hospital, medical and infectious waste;

(4) Units combusting commercial or industrial waste; and

(5) Unspecified "other categories of solid waste incineration units."

Section 129(g)(1) of the CAA identifies several types of units that are not solid waste incineration units, including units required to have a permit under section 3005 of the Solid Waste Disposal Act (SWDA); materials recovery facilities; certain qualifying small power production facilities or qualifying cogeneration facilities which burn homogeneous waste; and certain air curtain incinerators that meet opacity limitations established by EPA.

For each category of incineration unit identified under CAA section 129, EPA must establish numerical emission limits for at least nine specified pollutants (particulate matter (PM), sulfur dioxide (SO_2), hydrogen chloride (HC1), nitrogen oxides (NO_X), carbon monoxide (CO), lead (Pb), cadmium (Cd), mercury (Hg), and dioxins and dibenzofurans), and for opacity as appropriate. Section 129 of the CAA provides EPA with the discretion to establish emission limitations for other pollutants as well. (See CAA section 129(a)(4).)

Under CAA section 129, the NSPS and emission guidelines adopted for solid waste combustion units must reflect the maximum achievable control technology (MACT). Accordingly, EPA=s standards under CAA section 129 must "reflect the maximum degree of reduction in emissions of [the listed] air pollutants * * * that the Administrator, taking into consideration the cost of achieving such emissions reductions, and any non-air quality health and environmental impacts and energy requirements, determines is achievable for new or existing units in each category * * *." (See CAA section 129(a)(2).) However, the standards for new units must not be less stringent than the emissions control that is achieved in practice by the best controlled similar unit, and the standards for existing sources must not be less stringent than the average emissions limitations achieved by the best performing 12 percent of units in the category.

EPA previously developed regulations for each of the listed categories of solid waste incineration unit except for the undefined "other categories of solid waste incineration units." Four notices have been published regarding OSWI regulatory development (58 FR 31358, June 2, 1993; 58 FR 58498, November 2, 1993; 65 FR 67367, November 9, 2000; 69 FR 71472, December 9, 2004). In the November 9, 2000 notice, EPA revised the OSWI regulatory schedule to include a November 2005 date for promulgation of final regulations. This deadline was subsequently incorporated into a consent decree, requiring that EPA propose regulations for the OSWI source category by November 30, 2004, and promulgate final rules by November 30, 2005. On December 9, 2004, EPA proposed NSPS and emission guidelines for OSWI units (69 FR 71472). EPA received 26 public comment letters from a variety of sources, consisting mainly of government agencies, environmental organizations, incinerator manufacturers, and various incinerator owners/operators. By today's notice EPA promulgates final regulations for "other" (or OSWI) units.

II. Summary of the Final Rules

A. Do the final rules apply to me?

The final OSWI rules apply to you if you own or operate either of the following:

(1) An incineration unit with a capacity less than 35 tpd burning municipal solid waste (MSW) (as defined in CAA section 129, 40 CFR 60.2977 of subpart EEEE, and 40 CFR 60.3078 of subpart FFFF); or

(2) An incineration unit located at an institutional facility burning institutional waste (as defined in 40 CFR 60.2977 of subpart EEEE and 40 CFR 60.3078 of subpart FFFF) generated at that facility.

Requirements for air curtain incineration units that would otherwise be VSMWC or IWI units, but for the fact

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US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 377 of 492

that they burn certain materials, are discussed later in this preamble. If your incineration unit is currently meeting emission limitations and other requirements of another CAA section 129 regulation (i.e., small or large municipal waste combustion (MWC) units; hospital, medical, infectious waste incineration (HMIWI) units; or commercial and industrial solid waste incineration (CISWI) units), the final OSWI rules do not apply to you. Likewise, if an institutional combustion unit is covered under the CAA section 112 national emission standards for hazardous air pollutants (NESHAP) for industrial, commercial, and institutional boilers and process heaters (boilers NESHAP), it is not subject to the final OSWI rules. Certain types of combustion units listed in 40 CFR 60.2887 of subpart EEEE and 40 CFR 60.2993 of subpart FFFF are also excluded from the final OSWI rules.

If you began construction of your incineration unit on or before December 9, 2004, it is considered an existing unit and is subject to the emission guidelines (40 CFR part 60, subpart FFFF). If you began construction of your incineration unit after December 9, 2004, it is considered a new unit and is subject to the NSPS (40 CFR part 60, subpart EEEE).

If you began reconstruction or modification of your incineration unit prior to June 16, 2006, it is considered an existing unit and is subject to the emission guidelines. Likewise, if you begin reconstruction or modification of your incineration unit on or after June 16, 2006, it is considered a new unit and is subject to the NSPS.

B. What emission limits must I meet?

As the owner or operator of a new OSWI unit, you must meet the emission limits specified in table 1 of this preamble. You must conduct an initial performance test to show compliance within 60 days after a new OSWI unit reaches the charge rate at which it will operate, but no later than 180 days after the unit's initial startup.

As the owner or operator of an existing OSWI unit, you must meet the emission limits specified in table 1 of this preamble within 3 years after the effective date of State plan approval or by a compliance date to be established when EPA promulgates a Federal plan, but no later than December 16, 2010. The December 16, 2010 deadline is set by the statute. (See CAA section 129(f)). Thus, if EPA approves a State plan in 2009, December 16, 2010 will still be the deadline for complying. EPA plans to promulgate a Federal plan that will require compliance by December 16, 2010 in those areas that fail to submit an approvable State plan.

TABLE 1.—EMISSION LIMITS FOR NEW AND EXISTING OSWI UNITS

For these pollutants	You must meet these emission limits [a]	And determine compliance using these methods [b c]
Cd	18 micrograms per dry standard cubic meter (µg/dscm).	EPA Method 29.
CO	40 parts per million dry volume (ppmdv)	EPA Methods 10, 10A or 10B.
Dioxins/Furans (total mass basis)	33 nanograms per dry standard cubic meter (ng/dscm).	EPA Method 23.
HCl	15 ppmdv	EPA Method 26A.
Pb	226 µg/dscm	EPA Method 29.
Hg	74 µg/dscm	EPA Method 29.
Opacity	10%	EPA Method 9.
NO_X	103 ppmdv	EPA Methods 7, 7A, 7C, 7D, or 7E. [d]
PM	0.013 grains per dry standard cubic foot (gr/dscf).	EPA Method 5 or 29.
SO_2	3.1 ppmdv	EPA Method 6 or 6C. [e]

[a] All emission limits (except opacity) are measured at 7 percent oxygen, dry basis at standard conditions.
[b] These methods are in 40 CFR part 60, appendix A.
[c] Compliance with the CO emission limit is determined on a 12-hour rolling average basis using continuous emission monitoring system data. Compliance for the other emission limits is determined by stack testing.
[d] ASME PTC 19–10–1981–Part 10 is an acceptable alternative to only Methods 7 and 7C.
[e] ASME PTC 19–10–1981–Part 10 is an acceptable alternative to only Method 6.

C. What operating limits must I meet?

If you use a wet scrubber to comply with the emission limits, you must establish the maximum and minimum site-specific operating limits indicated in table 2 of this preamble. You must then operate the OSWI unit so that the charge rate does not exceed the established maximum charge rate. You must operate the wet scrubber so that the pressure drop or amperage, scrubber liquor flow rate, and scrubber liquor pH do not fall below the minimum established operating limits.

TABLE 2.—OPERATING LIMITS FOR NEW AND EXISTING OSWI UNITS USING WET SCRUBBERS

For these operating parameters	You must establish these operating limits	And monitor continuously using these recording times
Charge rate	Maximum charge rate	Every hour.
Pressure drop across the wet scrubber, or amperage to the wet scrubber.	Minimum pressure drop or amperage	Every 15 minutes.
Scrubber liquor flow rate	Minimum flow rate	Every 15 minutes.
Scrubber liquor pH	Minimum pH	Every 15 minutes.

Note: Compliance is determined on a 3-hour rolling average basis, except charge rate for batch incinerators, which is determined on a 24-hour basis.

HeinOnline -- 70 Fed. Reg. 74872 2005

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 378 of 492

If you use an air pollution control device other than a wet scrubber to comply with the emission limits, you must petition the EPA for approval of other site-specific operating limits to be established during the initial performance test and continuously monitored thereafter. The information you must include in your petition is described in 40 CFR 60.2917 of subpart EEEE and 40 CFR 60.3024 of subpart FFFF.

D. What are the other requirements?

As the owner or operator of a new or existing OSWI unit, you must meet the following additional requirements.

Siting Analysis (new units only):

- Submit a report that evaluates site-specific air pollution control alternatives that minimize potential risks to public health or the environment, considering costs, energy impacts, non-air environmental impacts, or any other factors related to the practicability of the alternatives.

Waste Management Plan:

- Submit a written plan that identifies both the feasibility and the methods used to reduce or separate certain components of solid waste from the waste stream to reduce or eliminate toxic emissions from incinerated waste.

Operator Training and Qualification Requirements:

- Qualify operators or their supervisors (at least one per facility) by ensuring that they complete an operator training course and annual review or refresher course.

Testing Requirements:

- Conduct initial performance tests for Cd, CO, dioxins/furans, HCl, Pb, Hg, NO_X, opacity, PM, and SO_2 and establish operating limits (i.e., maximum or minimum values for operating parameters).
- Conduct annual performance tests for all nine pollutants and opacity. (An owner or operator may conduct less frequent testing if the facility demonstrates that it is in compliance with the emission limits for three consecutive performance tests.)

Monitoring Requirements:

- Continuously monitor CO emissions.
- If using a wet scrubber to comply with the emission limits, continuously monitor the following operating parameters: charge rate, pressure drop across the wet scrubber (or amperage), and scrubber liquid flow rate and pH.
- If using something other than a wet scrubber to comply with the emission limits, monitor other operating parameters, as approved by the EPA.

Recordkeeping and Reporting Requirements:

- Maintain for 5 years records of the initial performance tests and all subsequent performance tests, operating parameters, any maintenance, the siting analysis (for new units only), and operator training and qualification. Each record must be kept on site for at least 2 years. The records may be kept off site for the remaining 3 years.
- Submit the results of the initial performance tests and all subsequent performance tests and values for the operating parameters.
- Submit annual compliance reports and semiannual reports of any deviations from the emission limits, operating limits, or other requirements.
- Apply for and obtain a title V operating permit.

E. What are the requirements for air curtain incinerators?

The final OSWI rules establish opacity limitations for air curtain incineration units that would otherwise meet the definitions of IWI or VSMWC units, but burn only:

- 100 percent wood wastes;
- 100 percent clean lumber;
- 100 percent yard waste; or
- 100 percent mixture of only wood waste, clean lumber, and/or yard waste.

The opacity limit is 10 percent. However, 35 percent opacity is allowed during startup periods that are within the first 30 minutes of operation. Air curtain incinerators burning only these materials must meet the opacity limits and certain monitoring, recordkeeping, and reporting requirements, and must apply for and obtain a title V operating permit.

Air curtain incinerators burning other institutional waste or municipal waste must meet the requirements of the final OSWI rules including all emission limits in table 1 of this preamble and the associated testing, permitting, monitoring, recordkeeping, and reporting requirements.

F. What title V permit requirements must I meet?

All new and existing OSWI units and air curtain incinerators regulated by the final OSWI rules must apply for and obtain a title V operating permit. These title V operating permits assure compliance with all applicable Federal requirements for regulated incineration units, including all applicable CAA section 129 requirements. (See 40 CFR 70.6(a)(1), 70.2, 71.6(a)(1) and 71.2.)

The permit application deadline for a CAA section 129 source applying for a title V operating permit depends on when the source first becomes subject to the relevant title V permits program. If a regulated incineration unit is a new unit and is not subject to an earlier permit application deadline, a complete title V permit application must be submitted on or before the relevant date below:

(1) For a unit that commenced operation as a new source on or before December 16, 2005, a complete title V permit application must be submitted not later than December 18, 2006; or

(2) For a unit that does not commence operation as a new source until after December 16, 2005, a complete title V permit application must be submitted not later than 12 months after the date the unit commences operation as a new source. (See CAA section 503(c) and 40 CFR 70.5(a)(1)(i) and 71.5(a)(1)(i).)

If your incineration unit is an existing unit and is not subject to an earlier permit application deadline, a complete title V permit application must be submitted by the earlier of the following dates:

(1) Twelve months after the effective date of any applicable EPA-approved CAA section 111(d)/129 plan (i.e., an approved State or Tribal plan that implements the OSWI emission guidelines);

(2) Twelve months after the effective date of any applicable Federal plan; or

(3) December 16, 2008.

For any existing incineration unit not subject to an earlier permit application deadline, the application deadline of 36 months after the promulgation of 40 CFR part 60, subpart FFFF, applies regardless of whether or when any applicable Federal plan is effective, or whether or when any applicable CAA section 111(d)/129 plan is approved by EPA and becomes effective. (See CAA sections 129(e), 503(c), 503(d), and 502(a) and 40 CFR 70.5(a)(1)(i) and 71.5(a)(1)(i).)

If your incineration unit is subject to title V as a result of some triggering requirement(s) other than those mentioned above (for example, a unit may be a major source or part of a major source), then you may be required to apply for a title V operating permit for that unit prior to the deadlines specified above. If more than one requirement triggers a source's obligation to apply for a title V operating permit, the 12-month timeframe for filing a title V permit application is triggered by the requirement which first causes the source to be subject to title V. (See CAA section 503(c) and 40 CFR 70.3(a) and (b), 70.5(a)(1)(i), 71.3(a) and (b), and 71.5(a)(1)(i).)

For additional background information on the interface between CAA section 129 and title V, including EPA's interpretation of CAA section 129(e), information on updating existing

HeinOnline -- 70 Fed. Reg. 74873 2005

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 379 of 492

title V operating permit applications and reopening existing title V permits, see the final Federal Plan for Commercial and Industrial Solid Waste Incinerators, October 3, 2003 (68 FR 57518, 57532), as well as the "Summary of Public Comments and Responses" document in the OSWI docket (EPA–HQ–OAR–2003–0156).

III. What are the changes to the rules since proposal?

We made several revisions to the OSWI rules since proposal. As previously stated, a summary of public comments and EPA's responses to those comments is located in the docket. The following is a summary of the most significant changes.

Definitions

• *Institutional facility.* Replaced the term "institution," as defined at proposal, with the term "institutional facility", which was the term we intended to define. Clarified that the term "institutional facility" means land-based facility.

• *Institutional waste.* Revised the definition of "institutional waste" to be clearer and to eliminate redundancy while maintaining the same meaning as the proposed definition.

• *IWI unit and MWC unit.* Revised the definitions of "institutional waste incineration unit" and "municipal waste combustion unit" by adding "cyclonic burn barrel" as another example of an incinerator design.

• *Clean lumber and wood waste.* Clarified that the definitions of "clean lumber" and "wood waste" exclude wood products that contain adhesives.

• *Administrator and EPA.* Revised the definition of "Administrator" and added a definition for the term "EPA" to clarify our intent with respect to implementation of the final OSWI rules. "Administrator" now means (1) For approved and effective State section 111(d)/129 plans, the Director of the State air pollution control agency, or his or her delegatee; (2) For Federal section 111(d)/129 plans, the Administrator of the EPA, an employee of the EPA, the Director of the State air pollution control agency, or employee of the State air pollution control agency to whom the authority has been delegated by the Administrator of the EPA to perform the specified task; and (3) For NSPS, the Administrator of the EPA, an employee of the EPA, the Director of the State air pollution control agency, or employee of the State air pollution control agency to whom the authority has been delegated by the Administrator of the EPA to perform the specified task. "EPA" means the Administrator of the EPA or employee of the EPA that is delegated the authority to perform the specified task.

• *Waste heat recovery.* Clarified that "waste heat recovery" occurs outside of the combustion firebox.

Exclusions

• *Rural IWI exclusion.* Revised the rural IWI exclusion such that in addition to the proposed requirement that the unit must be more than 50 miles from the boundary of the nearest Metropolitan Statistical Area (MSA), the unit must also be in an area "where alternative disposal options are not available or are economically infeasible." Also added provisions to require a facility to apply for the rural IWI exclusion and reapply for this exclusion every 5 years.

• *Temporary-use exclusion.* Added ice storms and high winds to the list of example disasters. Clarified that this exclusion includes air curtain incinerators. Restricted the exclusion to areas where a local, State, or Federal declaration of emergency or disaster has been proclaimed. Also revised the exclusion to require all temporary-use incinerators to submit notification if they will be used during a period that begins on the date the unit started operation and lasts more than 8 weeks within the boundaries of the current disaster area.

• *Prohibited goods exclusion.* Limited the exclusion to incinerators "owned and/or operated by," not merely "used by" government agencies. Clarified that the exclusion applies only to goods confiscated by a government agency.

• *National security exclusion.* Determined that any IWI units used solely during military training field exercises to destroy national security materials integral to the field exercises are not subject to the final OSWI rules. Added a provision to allow other IWI units to apply for an exclusion if the units are used solely to destroy national security materials and a reliable alternative to incineration that would ensure acceptable destruction is not available.

Emission Limits

• *Carbon monoxide (CO) limit.* Revised the limit from 5 parts per million by volume (ppmv) to 40 ppmv on a 12-hour rolling average basis.

• *Hydrogen chloride (HCl) limit.* Revised the limit from 3.7 ppmv to 15 ppmv.

Testing

• Added procedures to follow when performing Method 26A tests that will improve accuracy for testing wet scrubber-equipped incinerators.

• Clarified annual testing requirements for air curtain incinerators. If an air curtain incinerator has been out of operation for more than 12 months, it must be tested upon startup.

Technical Corrections and Clarifications

• In addition to the listed revisions, EPA made several technical revisions to correct cross-referencing and typographical errors and to improve clarity of the rules.

IV. Significant Issues and Changes—Public Comments

A. Applicability

We received several comments on the scope and applicability of the proposed OSWI rules. These comments ranged from very specific ones dealing with a certain category of units, to more overarching comments concerning applicability of the OSWI rules in general. The following paragraphs contain the major discussions regarding applicability; additional details may be found in the summary of public comments and responses document in the docket.

1. General Applicability of OSWI Rules

Two commenters expressed concern that the applicability of the proposed rules is not broad enough and that too many source categories are excluded or exempt from regulation. One commenter contended that EPA's OSWI regulation must include CAA section 129 standards for every category of solid waste incinerator that is not already regulated under CAA section 129. The commenter contended that the CAA requires EPA to set section 129 standards for any facility that combusts any solid waste, with the exception of facilities specifically exempted under CAA section 129(g)(1). The commenter made similar comments on most of the excluded types of units, stating that they should be subject to regulation under OSWI if they burn any nonhazardous waste. On the other hand, another commenter expressed support for the rationale regarding which sources will be regulated as OSWI units. The commenter urged EPA to avoid any significant changes to this stated rationale.

The CAA is ambiguous regarding what categories of solid waste incineration units must be regulated under section 129(a)(1)(E). After discussing timelines for very specific categories of solid waste incinerators (e.g., large and small municipal waste

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US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 380 of 492

combustors, commercial and industrial waste incinerators, and hospital and medical waste incinerators), the CAA states only that EPA must publish a schedule for promulgating standards for "other categories of solid waste incineration units." The statute does not unambiguously require, as implied by commenters, that the OSWI standards must apply to every other possible type of incineration unit burning any type of solid waste. If Congress had intended such a clear directive, it could have instructed EPA to regulate "every" other solid waste incineration unit. Yet Congress did not use such unambiguous language, leaving it to EPA to interpret the CAA in a reasonable manner. Moreover, the position adopted by commenters would lead to absurd results. Under their interpretation, a homeowner burning leaves in a barrel in his or her backyard must be subject to a CAA section 129 rule because the barrel is a unit combusting solid waste material. Congress cannot have intended that EPA regulate such sources under section 129, with all the attendant requirements. The language of section 129 suggests that Congress wanted to focus EPA's attention to specific, larger incineration units (e.g., MWC units and CISWI units). Under this commenter's interpretation of section 129, however, EPA would have to establish MACT floors and emissions standards for dozens of different types of small incineration units with potentially minimal emissions.[1] It takes an enormous effort and use of resources to develop a MACT floor and write a section 129 standard, and Congress cannot have meant that EPA would undertake that substantial effort a multitude of times merely by instructing EPA to address "other" categories of solid waste incineration units (assuming EPA even has the resources to undertake such efforts). Moreover, sources subject to section 129 standards must obtain title V operating permits and undertake extensive testing, monitoring, and recordkeeping even if EPA does not require additional controls under the section 129 standard, and regardless of the level of emissions from the sources. As noted elsewhere, EPA estimates that the costs of these requirements alone can more than quadruple the costs of owning and operating an incinerator. Again, Congress cannot have intended that every "incineration" unit as defined by the commenter, regardless of its size or its impact on public health and the environment, would have to shoulder these burdens merely by referencing an undefined "other" category of incineration units at section 129(a)(1)(E). Thus, the instructions to EPA to promulgate standards for "other categories" of solid waste incinerators inherently include the authority for EPA to reasonably delineate those "other" categories of solid waste incineration units.

Thus, appropriately, the first step in EPA's rulemaking process was determining what universe of sources will be subject to the regulations. The statutory provisions of CAA sections 129(a), (g) and (h) make it clear that EPA must, as a part of the regulatory process, define which combustion units should be subject to regulation under CAA section 129 and hence, to which categories of solid waste combustion units the standards for "other categories of solid waste incineration units" apply. For example, the reference in CAA section 129(g)(1) to a permit issued under section 3005 of the SWDA, refers to units burning hazardous solid waste. This effectively limits the scope of EPA's authority under CAA section 129 to the regulation of solid waste incineration units that burn nonhazardous solid waste. In determining the scope of OSWI, EPA collected and analyzed data to identify potential OSWI units and determined that the regulations should focus on two categories of waste combustion units that are not regulated elsewhere: IWI units and VSMWC units. In the proposed rules, we also clarified that certain types of units are not regulated by the OSWI rules. Some of these units are specifically excluded by CAA section 129 (e.g. hazardous waste combustion, small power production facilities, cogeneration facilities burning homogeneous waste). We also clarify that units are not covered under OSWI if they are already regulated under other CAA section 129 or CAA section 112 standards (e.g., small and large MWC, HMIWI, CISWI, boilers, cement kilns). The language of CAA section 129(h) makes clear the Congressional intent for CAA regulations under section 129 or section 112 to be mutually exclusive. Accordingly, sources subject to CAA section 112 standards are not OSWI units. Absence of regulation under CAA section 112, however, is not determinative of whether a unit is subject to the final OSWI rules.

Moreover, we do not agree that the "small power production facilities" or "qualifying cogeneration facilities" described in CAA section 129(g)(1) are the only types of energy recovery facilities that are properly excluded from the OSWI category. We do not read section 129(g)(1) to establish an exclusive list of excluded sources. (See *National Wildlife Federation* v. *Gorsuch*, 693 F.2d 156, 172 (D.C.Cir.1982) (use of the term "includes" allows for additional, unstated meanings); *Chemehuevi Indian Tribe* v. *California St. Bd. of Equalization*, 757 F.2d 1047, 1054 (9th Cir.1985), rev'd on different grounds, 106 S.Ct. 289 (1985) ("includes" is a term of enlargement, not of limitation); *United States* v. *Huber*, 603 F.2d 387, 394 (2d Cir. 1979), cert. denied, 100 S.Ct. 1312 (1980) (use of the word "includes," rather than a more restrictive term such as "means," indicates that the list is not exhaustive but merely illustrative).)

As stated earlier, the final OSWI rules regulate IWI and VSMWC units. However, we determined that some subclasses of OSWI units should be handled differently due to unusual circumstances (e.g., unique geographic locations or climatic factors, temporary emergency use) that would prevent owners or operators of these units from having a feasible alternative waste disposal method. The availability of technically and economically feasible waste disposal alternatives is important because, as stated in the preamble to the proposed rules, CAA section 129 rules must contain testing, permitting, monitoring, recordkeeping, and reporting requirements. These requirements alone would easily double or triple the cost of operating a smaller incinerator like those covered by the final OSWI rules. Therefore, we expect CAA section 129 rules (even if they did not require air pollution controls) to force many incinerators to shut down and utilize alternative waste disposal options. However, for unique subclasses of units where such alternatives are not available, compliance with a rule would be infeasible yet shutdown of these units also is not an acceptable alternative. We excluded certain such subclasses from the final OSWI rules for the reasons described in the preamble to the proposed rules and in responses to comments. Of course, EPA and States may still regulate these subclasses under other provisions of the CAA, as necessary. (See CAA section 110(a)(2).)

2. Units With Energy Recovery and Other Types of Combustors

Two commenters questioned the rationale of excluding incinerators (one commenter specified IWI units) with energy recovery from the definition of solid waste incinerators, and believe that an incinerator burning waste should be regulated as a waste

[1] Total emissions of the regulated air pollutants from all units in the two subcategories regulated by the final OSWI rules are estimated to total only 2,272 tons per year.

HeinOnline -- 70 Fed. Reg. 74875 2005

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 381 of 492

incinerator, no matter how the produced heat is used.

First, we note that the energy recovery comment applies to IWI units, as all VSMWC units, with or without energy recovery, are subject to the final OSWI regulations. Those MWC units that recover energy serve dual purposes: (1) The disposal of municipal solid waste, and (2) energy recovery from the combustion of the waste. As a result of these dual purposes, MWC units are often boilers by design. The inclusion of a specific definition of "municipal waste" in CAA section 129 and other indications of Congressional intent support EPA's position that all MWC units should be regulated under section 129 of the CAA regardless of whether the MWC unit serves another purpose. The regulatory boundaries established in the rules for the large and small MWC units are quite clear that MWC units, regardless of their configuration, are regulated under section 129 of the CAA. Our intent is to maintain this interpretation in our regulation of VSMWC units under the final OSWI regulations. In summary, VSMWC units that are incinerators without energy recovery, incinerators with waste heat recovery, and boilers are all regulated under the final OSWI rules. See below for further discussion.

The regulatory boundaries for IWI units, however, are not clearly defined by the CAA. As we have discussed, for the IWI subcategory of OSWI, EPA must define which types of sources should be included in the subcategory. In the process of developing the OSWI rules, developing the boilers NESHAP (promulgated at 69 FR 55218, September 13, 2004), developing rules for area source boilers, promulgating requirements for electric utility steam generating units (70 FR 28606, May 18, 2005), and establishing rules applicable to other combustion sources, EPA must map the regulatory boundaries that identify which units are subject to section 129.

The distinction between IWI units and non-IWI combustion units is not readily apparent. For example, there is general agreement that coal that is combusted in a boiler is not waste, because coal is commonly thought of as a fuel. However, there are many other materials that are burned in institutional boilers for energy recovery. Such materials could include wood, paper, other biomass, plastics, and other items. Combustion of such materials, when burned in a boiler with energy recovery, is addressed under CAA section 112 regulations for boilers. EPA has determined that for purposes of the IWI subcategory of OSWI units, the critical consideration in determining whether the unit is burning institutional waste is the primary function of the combustion unit; and the primary indicator of function is whether or not a unit is designed and operated for energy recovery. On one hand, boiler units are specifically designed to recover the maximum amount of heat from combustion of a material. The boilers NESHAP covers combustion units at institutional facilities that burn solid materials and recover heat in the combustion firebox. Incineration units, on the other hand, are designed to discard materials by burning them at high temperatures and leaving as little residue as possible. Although incineration units do not have energy recovery in the combustion firebox, they may be followed by waste heat recovery units. Combustion units at institutional facilities that burn solid materials and do not recover heat in the combustion firebox, but do recover waste heat from the hot combustion gases following the combustion firebox, would not be covered by the boilers NESHAP. Waste heat recovery units are designed to cool the exhaust gas stream from an incineration unit, and/or recover, indirectly, the useful heat remaining in the exhaust gas. The presence of a waste heat recovery unit on the exhaust gas does not change the fact that the unit combusting the material is primarily an incineration unit burning waste for disposal purposes. EPA does not consider it appropriate to regulate such units as boilers. Therefore, we have determined that IWI units are those units that combust materials with only waste heat recovery (i.e., heat recovery outside of the combustion firebox) or without energy recovery.

Our focus on the primary function of the unit to identify institutional waste is consistent with the provisions in section 129 of the CAA that apply to MWC units. In section 129, Congress specifically defined municipal waste as "refuse (and refuse-derived fuel) collected from the general public and from residential, commercial, institutional, and industrial sources * * *." (See 42 U.S.C. section 7429(g)(5).) This definition goes on to list specific materials included in municipal waste and exclude incineration units combusting 30 percent or less municipal waste from the MWC standards. This definition of municipal waste provides more specific meaning to the phrase "solid waste * * * from the general public" set forth in section 129(g)(1) of the CAA. Based on the definition of municipal waste in section 129(g)(5), EPA has interpreted section 129 to cover all MWC units, including waste-to-energy facilities that have energy recovery as part of their integral design. When CAA section 129 was developed, EPA had already taken steps to promulgate new source performance standards and emissions guidelines for MWC units under section 111 of the CAA. Thus, by defining "municipal waste" in this manner in section 129(g)(5), Congress determined that MWC units should be regulated as under section 129 even if the MWC unit serves another purpose (e.g., energy recovery). This determination is consistent with our approach in the final OSWI rules because a primary function of a MWC unit is waste disposal.

In contrast, Congress did not define "other solid waste incineration unit" or other types of "waste." Thus, the CAA is ambiguous regarding whether every unit that burns material for energy recovery should be regulated under section 129 of the CAA. We have interpreted the CAA to allow EPA to consider the primary function of the combustion units in making the determination of whether particular units should be subject to CAA section 129. For reasons discussed earlier, this question is harder to answer in the context of institutional facilities where certain combustion units have been historically considered boilers, rather than incinerators, based on the combustion of solid materials commonly regarded as fuels. However, in the case of municipal waste combustors, there has been little or no disagreement among industry, government agencies, and environmental groups on the meaning of MSW and the fact that the section 129 rules cover all MWC units. Thus, we did not have to address this issue at length in the MWC rules. (See 69 FR 7394, n.5.)

One of the commenters also contended that EPA has not proposed standards for all solid waste combustion technologies. The commenter listed pyrolysis, thermal oxidation, catalytic cracking, plasma arcs, catalytic oxidation, flameless thermal oxidizers, and gasification as technologies that have been used to combust solid waste, despite not having the name "incineration."

EPA notes that the commenter did not provide any details regarding these other technologies or the materials that are processed by these technologies. Some of these types of units may well be covered under the CAA section 129 final OSWI rules. For example, pyrolysis/combustion units (two chamber incinerators with a starved air primary chamber followed by an

HeinOnline -- 70 Fed. Reg. 74876 2005

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 382 of 492

afterburner to complete combustion) within the VSMWC and IWI subcategories are considered OSWI units. In addition, thermal oxidizers, catalytic oxidizers, and flameless thermal oxidizers, if used to combust solid waste, could be subject to the final OSWI rules or other section 129 rules if they meet the appropriate applicability requirements. It is important to note, however, that these types of units often are used to combust uncontained gases (generally from industrial processes) and are not used to dispose of solid waste. Such units would not be subject to the final OSWI rules. The other types of units mentioned by the commenter appear to be either: (1) part of industrial processes (e.g. catalytic cracking) and are regulated under CAA section 112 and other standards for the specific industrial process; (2) noncombustion thermal technologies that operate with an external heat source (e.g. plasma arc); or (3) technologies that are specifically designed to prevent combustion reactions, and, instead are used to produce fuel or chemical feedstocks via controlled chemical reactions (e.g. gasification). Any of these technologies that are used to process hazardous waste are excluded from CAA section 129, and any of these technologies that are regulated as site remediation units under CAA section 112 are also not subject to section 129.

3. Potential OSWI Subcategories Where No Units Could Be Identified

One commenter contended that EPA's failure to identify any units burning manure or livestock bedding, wood waste, or construction and demolition waste does not excuse EPA from setting emission standards for such units.

EPA made significant attempts to identify incinerators in determining which types of sources to regulate under the final OSWI rules. As part of the industrial combustion coordinated rulemaking (ICCR), we sent a questionnaire to nearly 12,000 facilities identified as having a combustion unit (including boilers, heaters, and incinerators) burning non-fossil materials. This included every facility we could identify from Federal and State databases and stakeholder input. We received responses from the vast majority of these facilities, although many were no longer operating their incinerators. These responses provided design and operating information on over 1,100 combustion units burning wood. However, all of these sources were either boilers or process heaters with integral energy recovery that are being addressed under CAA section 112, or commercial or industrial incineration units that are appropriately regulated under CISWI. We are not aware of, nor has the commenter provided any information on, any other wood-fired units remaining for consideration as potential OSWI units.

Similarly, a few units were identified that combust agricultural residues such as bagasse, rice hulls, etc. for the purpose of energy recovery, and, thus, are all boilers and are being addressed under CAA section 112. Prior to proposal of the OSWI rules, we updated the ICCR list of potential OSWI units by searching the latest version of the national emissions inventory (NEI), which contains the latest data from State databases and various Federal programs, for incineration units burning non-fossil materials. We also contacted State agriculture departments to request information on agricultural incineration; contacted trade associations; contacted incinerator vendors to determine what types of incinerators they have been selling and to what markets; and performed Web searches. After these extensive efforts, we were not able to locate any incineration units in several potential subclasses described in the preamble to the proposed rules. This result is not surprising because vendor contacts and feedback from facilities that used to operate OSWI units have shown us that the use of incineration for waste disposal is declining, especially where the units do not recover energy. Given our prior efforts to identify these types of units and the trends in incineration, we do not believe that these types of units currently operate. Furthermore, public commenters on the proposed rules have not provided specific information on any such sources. Because we are unable to locate such units and have no data on them, we are not, and indeed cannot regulate them at this time.

Public commenters on the proposed rules have not provided any information demonstrating that there are agricultural waste incinerators, construction or demolition incinerators, or wood waste incinerators that are not boilers. EPA cannot set a standard under CAA section 129 without adequate operating, emissions, and control technology information for sources within the category. Thus, contrary to the commenter=s suggestion, EPA could not speculate or estimate and set a CAA section 129 standard Ajust in case." Therefore, because we are unable to locate any such units and have no data on how such hypothetical units, if used in the future, may operate, we are not including agricultural waste, construction or demolition, or wood waste incinerators as subcategories of OSWI.

4. Rural Institutional Waste Incinerators

Two commenters suggested that the exemption for rural IWI units is too broad. One commenter contended that the locations proposed to be exempted include many areas where solid waste collection and disposal services are readily available at reasonable cost, and, therefore, the exemption is not justified. The commenter also contended that this raises questions regarding environmental justice, as the exemption implies that economically disadvantaged communities should have worse air quality standards because they are economically disadvantaged. Furthermore, the commenter pointed out that U.S. Government facilities (i.e., Department of Defense) do not have the limited tax base and, therefore, EPA's reasons for the rural exemption do not apply. Both commenters recommended that the rural exemption be narrowed further to include only those areas where landfills or other nonincineration options are not available or feasible.

To address commenters' concerns, EPA is narrowing the rural IWI exclusion to apply only to those IWI units that are more than 50 miles from the boundary of the nearest MSA and where alternative disposal options are not available or are economically infeasible. In the final OSWI rules, there are provisions that specify how a facility may apply for this exclusion. For existing units, the application must be submitted to the Administrator at least 1 year before the final compliance date to ensure that there is adequate time for any additional dialogue necessary to determine if an exclusion is warranted, and, if the exclusion is denied, adequate time for the facility to install controls or otherwise arrange for disposal of their waste. For new units, the application must be submitted to and approved by the Administrator prior to initial startup.

By narrowing the exclusion to include only those areas Awhere alternative disposal options are not available or are economically infeasible," we have addressed the commenter=s concern that we should not exempt sources located where waste disposal alternatives are available at a reasonable cost. Our analysis of remote institutional waste disposal costs indicates that a 50 mile distance to dispose of waste is approximately the distance where the costs of operating an incinerator (without control technology) would equal those of taking the waste to a landfill, transfer station, or small or

HeinOnline -- 70 Fed. Reg. 74877,2005

US EPA ARCHIVE DOCUMENT

large MWC unit. As such, we believe that 50 miles from a MSA is a minimum point where institutional facilities would be able to make a legitimate case that they qualify for the exclusion. To clarify the geographical criteria, the MSA definitions that will be used as one component of the exclusion are based upon those found in AUpdated Statistical Definitions and Their Uses' OMB Bulletin 05–02, February 22, 2005.

We realize that, over time, population density changes may cause revisions to the definitions of MSA that would affect the rural status of a rural IWI unit. Furthermore, there may be situations where alternative waste disposal options become available such that the unit may not be able to demonstrate adverse economic impacts of using an alternative means of disposal or the IWI unit is no longer necessary to the institutional facility. To address these situations, we are adding provisions that require sources granted an exclusion as a rural IWI unit to reapply for the exclusion every 5 years following the date the exclusion is granted by the Administrator. If the Administrator finds that the IWI unit no longer qualifies for the exclusion, then the unit is given 3 years to comply with the requirements of the final OSWI rules.

In response to the second issue put forth by the commenter, we disagree that we are implying that economically disadvantaged communities should have worse air quality. As we have discussed in the preamble to the proposed rules, some disposal alternatives to incineration, such as open burning, are worse for air quality than incineration. If the rural institutional facility is unable to afford compliance and there are no other disposal alternatives (*e.g.*, landfills, MWC), then the facility may resort to open burning, littering, or dumping. Open burning presents not only air pollution problems, but can also lead to an increased likelihood of accidental fires. Littering and dumping pose problems such as potential contamination of streams or other water bodies, and attracting vermin and wild animals, which could contribute to disease transmission. The facility, in applying for the rural IWI exclusion, must make a case that suitable alternatives, such as landfilling or hauling waste to a MWC unit, are not available or are not economically feasible. Although we discussed concerns about the local tax base for school districts in the preamble to the proposed rules, it was but one reason for the exclusion which applies to all rural IWI units, not just those located at schools. Thus, other institutions (*e.g.*, Federal facilities, churches) may apply for the exclusion, although we note that certain institutions with larger budgets may have a harder time showing that alternative waste disposal options are economically infeasible.

5. Alaskan Exclusion

Three commenters requested that the exclusion for incinerators in isolated areas of Alaska be broadened. Two commenters expressed concern that the proposed rules do not exempt VSMWC units used to combust municipal-type waste generated at oil-field base operations facilities and remote camps on Alaskan oil fields.

EPA stresses that the final OSWI rules apply only to VSMWC and IWI units, and they provide an exclusion for units used at solid waste disposal sites in Alaska that are classified as Class II or Class III municipal solid waste landfills. If the incinerators operated by the commenters meet the definition of VSMWC units and are used at solid waste disposal sites in Alaska that are classified as Class II or Class III municipal solid waste landfills, then they would be excluded from the final OSWI rules. We have insufficient information about the units operated by these commenters (e.g., operating at an oil exploration site or oil-field base camp) to determine if they are VSMWC units, but they appear to be operated by industrial or commercial entities and would likely not meet the definitions of a VSMWC or IWI unit in the final OSWI rules. To be a VSMWC unit under the final OSWI rules, the incinerator must be burning municipal solid waste collected from multiple sites. To be an IWI unit under the final OSWI rules, the incinerator must be located at an institutional facility (i.e., land-based facility owned and/or operated by an organization having a governmental, educational, civic, or religious purpose) and be burning waste generated at that institutional facility. Incinerators at an industrial or commercial facility that burn only waste generated on site at that facility are not VSMWC or IWI units. If the commenter's units are not VSMWC or IWI units, they would not be subject to the final OSWI rules. We recognize that the final CISWI rules do not currently cover commercial/industrial-owned/operated incinerators that burn only municipal-type waste. EPA intends to address regulation of such combustion units under future revisions to the final CISWI rules.

A commenter also expressed concern that the proposed definitions of institution and institutional waste are excessively restrictive and do not fit the unique situations that arise in Alaska. The commenter gave examples such as the existence of Aunorganized" boroughs that have no local government or tax base.

EPA's understanding of the local government structure in Alaska is that there are two types of local government structures: boroughs and unorganized areas. Boroughs, like counties, are collections of one or more municipalities joined in a regional government. Unorganized areas are the non-borough areas where there is either (1) no intermediate government between the State and the tribal, village, or city council, and local government is strictly at the municipal level or (2) no governing body other than the State. We have provided an exclusion for units used at solid waste disposal sites in Alaska that are classified as Class II or Class III municipal solid waste landfills. The State of Alaska does not consider the local government structure in determining the class of a municipal solid waste landfill or waste disposal site. The Class II and III determinations are based on the anticipated waste volume and location of the waste disposal site. Further, the incinerators that dispose of municipal solid waste Acollected from" these boroughs and unorganized areas would be VSMWC units, rather than IWI units, so the commenter's concerns regarding the definitions of institution and institutional waste with respect to incinerators serving these local government structures are not relevant.

We would also like to clarify that an incinerator operated by a commercial entity that is burning municipal solid waste that is Acollected from" multiple residences and any local businesses would be considered a VSMWC unit subject to OSWI regulation, provided that it had a capacity of less than 35 tpd of municipal solid waste. This situation is quite common among the small and large MWC units, as several municipalities have contracted or partnered with commercial operators in the construction and operation of their local MWC facility.

In summary, the final OSWI rules apply only to VSMWC and IWI units. As previously described, we have provided an exclusion for units used at solid waste disposal sites in Alaska that are classified as Class II or Class III municipal solid waste landfills, as well as an exclusion for rural IWI units (for IWI located more than 50 miles from the boundary of the nearest MSA and where alternative disposal options are not available or are economically infeasible). These exclusions fully address small OSWI units in remote areas of Alaska that do not have

HeinOnline -- 70 Fed. Reg. 74878 2005

US EPA ARCHIVE DOCUMENT

technically or economically feasible disposal alternatives, so the concerns raised by the commenters are addressed in the final OSWI rules.

6. Temporary-Use Incinerators

Exclusion Requirements. Commenters contended that the proposed requirements for temporary-use incinerators used in disaster recovery are too lax and invite abuse. The commenters pointed out that the Stafford Act, which provides for a State of Emergency or a major disaster to be declared by a State government or the President of the U.S., does not contain any provisions for declaring that the State of Emergency or disaster has ended. As such, under the proposed rules, these incinerators arguably would be allowed to operate indefinitely without any restrictions. One of these commenters contended that, under the proposed rules, operators of portable incinerators could declare Aemergencies' or Adisasters' at their discretion, and travel from place to place burning any sort of debris without any pollution controls, restrictions of location, or public and agency notification requirements. Another commenter stated that the exemption would allow an uncontrolled unit to operate for up to 8 weeks without adequate cause or approval from the proper authority and suggested earlier notification.

EPA agrees that incinerator owner/operators should not be allowed to declare their own Aemergencies' and that was not our intent. We have adjusted the rules as proposed to exclude temporary-use incinerators used to combust debris for a limited period of time from most requirements of these subparts only if they are used in areas that have been declared a State of Emergency by a State or local government, or if the President, under the authority of the Stafford Act, has declared that an emergency or major disaster exists in the area. The inclusion of local disaster area declarations in this exclusion encompasses those disasters that severely affect a municipality or county and require the local government to undertake disaster recovery actions, but where the economic losses are not large enough or sufficiently widespread to require extensive State or Federal financial assistance.

EPA also agrees that some notification and oversight should be required to avoid temporary-use incinerators being operated indefinitely in areas that are declared States of Emergency by the State, local or Federal government. The final rules require that operators of temporary-use incinerators combusting debris in declared emergency or disaster areas notify the Administrator if it is necessary for the units to combust debris within the boundaries of a given emergency or disaster area for more than 8 weeks from the date the units began operation, and request permission to continue to operate. EPA's intent is that if a unit is used during a period that begins on the date the unit started operation and lasts 8 weeks or less, then that unit is excluded from the requirements of the final rules. A unit that operates intermittently for 8 weeks or less over a period longer than 8 weeks from the date the unit started operation (e.g., over a 12-week period) does not meet the requirement for exclusion.

The notification must be submitted in writing by the date 8 weeks after the temporary-use incinerator begins operating within the boundaries of the current emergency or disaster area. The notification must contain the date the incinerator began operation within the current emergency or disaster area, identification of the disaster or emergency for which the incinerator is being used, a description of the types of materials being burned, information on the size and design of the incinerator, the reasons the incinerator must be operated for more than 8 weeks, and the additional amount of time for which permission to operate is requested, including a date for ceasing operation. Upon submittal of the notification, the temporary-use incinerator automatically may operate for another 8 weeks (a total of 16 weeks from the date the unit started operation). At the end of 16 weeks, the temporary-use incinerator must cease operation or comply with the OSWI emission limits and other requirements of the final OSWI rules unless the Administrator has approved the request to continue operation.

Given these changes, 16 weeks will be the maximum length of time a temporary-use incinerator can operate in a given area declared a State of Emergency or major disaster without specific permission to continue operation from the Administrator. The approval of the request to continue operating must establish a site-specific date to cease operation. We have chosen this approach, rather than setting a uniform maximum amount of time because a case-by-case approval process allows EPA and States to set the appropriate time limits for the specific situation.

We decided that the notification should be provided within 8 weeks after the start of operation to be consistent with the timing in the proposed rules for areas that had not been declared emergencies or major disasters by the State or Federal government. In emergency situations, quick removal of debris is of utmost importance to maintain public health and safety, and temporary-use incinerators may be best suited to dispose of debris. We have elected not to regulate incinerators used on a short-term basis to recover from an emergency or disaster under the final OSWI rules, because regulation would hinder the recovery effort and this impact would outweigh the benefits from regulation of the units. Recent events in the Gulf States due to Hurricanes Katrina, Rita, and Wilma have illustrated the importance of immediate recovery action following a disaster. This proactive approach, which addresses the terms for use of a temporary-use incinerator during declared emergencies or disasters, is better than an approach that requires EPA and others to react during or immediately after such an emergency or disaster strikes. We also point out that States and the Federal government have specific procedures that are followed in declaring an area a State of Emergency or a major disaster area. Their procedures involve extensive involvement by local, State, and Federal officials to conduct a preliminary damage assessment, develop debris removal plans, and coordinate and manage disaster assistance activities. Further information on the processes can be found on individual State Web sites and on the Federal Emergency Management Agency (FEMA) Web site (*http://www.fema.gov*). Given that there is already a coordination process and we do not intend to regulate temporary-use incinerators operated for 8 weeks or less, an earlier notification requirement in the final OSWI rules is not necessary or productive.

Finally, in responding to a separate comment regarding air curtain incinerators, we reviewed and clarified the exclusions for which air curtain incinerators may qualify. In doing this review, we realized that air curtain incinerators were not specifically mentioned in the exclusion for temporary-use incinerators used in disaster or emergency recovery efforts. To remedy this, we are clarifying that the temporary-use incinerators used in disaster or emergency recovery efforts exclusion includes air-curtain incinerators used for these purposes. We realize that air curtain incinerators may be particularly useful in disaster recovery efforts, and intend that they may also qualify for this particular exclusion.

Control Feasibility. Another commenter contended that EPA has not

HeinOnline -- 70 Fed. Reg. 74879 2005

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 385 of 492

explained why it is infeasible for temporary-use incinerators to include air pollution controls or how requiring controls would delay commencement of operation. Therefore, the commenter concluded, EPA has provided no basis for the assumption that controlling emissions from temporary-use incinerators would hinder recovery efforts.

Declared States of Emergency and major disasters are, by definition, serious events. In emergency situations, quick removal of debris is of utmost importance to maintain public health and safety. Depending on the type of emergency and the local situation, there may be no reasonable and safe alternatives to incineration. Regulation, under the final OSWI rules, of temporary-use incinerators used for disaster recovery efforts would discourage use of such incinerators, potentially hindering recovery efforts and impairing public health and safety. The emission limits in the final OSWI rules are based on wet scrubbing for any IWI and VSMWC units other than air curtain incinerators burning only clean lumber, wood waste, and yard waste. The annual cost of a wet scrubber and the monitoring, recordkeeping, and reporting required by the rules (including annualized capital cost of the scrubber and monitoring equipment, and annual operation and maintenance (O&M), permitting and reporting costs) may be more than six times the cost of owning and operating an uncontrolled incinerator. Even if the final OSWI rules were to require no add-on control of such incinerators, it is estimated that the annual cost of the testing, monitoring, recordkeeping and reporting required by CAA section 129 could more than quadruple the cost of owning and operating the incinerator. These sharp increases in regulatory compliance costs relative to the current cost of incineration would discourage use of incinerators. Furthermore, as evidenced by the recent recovery efforts due to Hurricanes Katrina, Rita, and Wilma, the water supply, handling and treatment capabilities required to operate the wet scrubber may be unavailable for long periods of time in the disaster areas, while the need for recovery is immediate. In such situations, the incinerator cannot stand idly by while awaiting ancillary services to operate the scrubber.

We also point out that the exclusion for emergency cleanup activities of short duration is not unique to the final OSWI rules. Other CAA programs and rules recognize the need to make allowances for similar situations. For example, the site remediation NESHAP (40 CFR part 63, subpart GGGGG) provide an exclusion for site remediation activities that are completed within 30 consecutive calendar days. The preamble for the proposed rule explained that, "This exemption is intended to apply to contamination commonly caused by a spill where the cleanup is initiated soon after the spill event and is of very short duration (i.e., typically 30 days or less). The purpose of this exemption is to encourage prompt attention to remediating contaminant spills and leakages" (67 FR 49407, June 30, 2002). Similarly, the OSWI exclusion of temporary-use incinerators encourages prompt clean-up of debris from emergencies and disasters and excludes only temporary-use incinerators that operate for a limited period of time within a declared disaster area.

7. Sewage Sludge Incinerators

Two commenters were unsure how the proposed rules treat sludge incinerators. Both commenters requested that EPA clarify if, and how, commercial and municipal sludge incinerators are addressed by the final OSWI standards.

Sewage sludge incinerators (SSI) are a source category that is being addressed under CAA section 112. As early as April 2000, EPA indicated that it no longer intended to regulate SSI under section 129 of the CAA:

> The Agency has decided not to regulate sewage sludge incinerators as a category under Section 129 of the Clean Air Act * * *. The Agency believes that sewage sludge generated by publicly-owned treatment works (POTWs) and combusted in SSIs is "solid waste." However, this sludge is from a municipal source, and not from "commercial or industrial establishments or the general public." Therefore, SSIs that combust this sludge are not "solid waste incineration units" and section 129 does not apply to them. Virtually all of the SSIs that would be candidates for regulation combust sludge from POTWs, and thus are not covered under Section 129.

(Unified Agenda, 65 FR 23459–01 (April 24, 2000).) In addition, EPA's intent to regulate these sources under CAA section 112 was made clear when SSI were included as an additional area source category listed pursuant to CAA sections 112(c)(3) and 112(k)(3)(B)(ii) in the June 26, 2002 **Federal Register** (67 FR 43113). As discussed previously, source categories regulated by CAA section 112 may not also be subject to a CAA section 129 regulation. In previous regulatory activities, EPA was unable to identify any SSI that were major sources. (See 67 FR 6521, February 12, 2002.) Therefore, the entire SSI source category consists of area sources, and will be addressed by the CAA sections 112(c) and 112(k) regulations. Sewage sludge incinerators do not meet the definitions of IWI or VSMWC units in the final OSWI rules and, thus, are not regulated as OSWI units.

8. National Security Incineration Units

In the preamble to the proposed OSWI rules, EPA requested comment on whether a subclass of IWI units that burn national security documents should be excluded from the final OSWI regulations. Three commenters opposed excluding incinerators that burn national security documents from regulation and contended that EPA did not explain or justify the reason to exclude these units. However, another commenter expressed concern that there could be situations in which the only viable alternative for the destruction of classified materials would be the use of an OSWI unit. Another commenter requested EPA provide an exclusion to the final OSWI rules for units used for sanitization of classified or otherwise sensitive materials by the U.S. Armed Forces, the Department of Energy, and other similar agencies.

We have determined that any IWI units used solely during military training field exercises to destroy national security materials integral to the field exercises are not subject to the final OSWI rules. We have determined that an outright exclusion for other IWI units used to destroy national security materials will not be provided in the final OSWI rules. However, the final rules contain provisions such that individual sources may apply for this type of exclusion as necessary. We understand that mechanical destruction or other alternatives to incineration are available for most, if not all, categories of national security materials. Thus, we think that, as a general matter, few incineration units will meet this exclusion on a long-term basis. Nonetheless, this exclusion is needed for two reasons. First, the government could change the acceptable means of disposing of one or more types of national security materials in the future. Second, there may be unexpected circumstances when mechanical or other alternative means of destruction are temporarily unavailable, requiring the use of backup incineration units during those periods. To be granted an exclusion, a source/governmental entity must demonstrate that the unit is used solely to incinerate national security materials and that a reliable alternative to ensure acceptable destruction of national security materials is unavailable on either a permanent or

HeinOnline -- 70 Fed. Reg. 74880 2005

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 386 of 492

temporary basis. An "acceptable" level of destruction is one that meets applicable regulations, guidelines, or instructions for the destruction of national security materials. For existing units, the request must be submitted to the Administrator prior to 1 year before the final compliance date, and the Administrator will either grant or deny the request for exclusion. For new units, the request must be submitted to and approved by the Administrator prior to initial startup. The final rules contain specific provisions for applying for this exclusion.

9. Various Other Applicability Issues

Cyclonic Burn Barrels. One commenter asked if cyclonic burn barrels are subject to the OSWI regulations. The commenter recommended that EPA explicitly include these devices as regulated entities subject to all the requirements of the final OSWI regulations.

It was our intent to regulate cyclonic burn barrels that meet the definition of an IWI unit or VSMWC unit under the final OSWI rules. An IWI unit is a combustion unit, regardless of size, located at an institutional facility (i.e., land-based facility owned and/or operated by an organization having a governmental, educational, civic, or religious purpose) that burns solid waste generated at that institutional facility. A VSMWC unit is a combustion unit that has the capacity to burn less than 35 tpd of municipal solid waste collected from residential, commercial, institutional, and industrial sources. We agree that cyclonic barrel burners are a type of incinerator because they provide an enclosure (barrel) in which the waste is burned and include a fan to provide high-velocity air flow and an exhaust outlet, and we did not exclude them in the proposal. To clarify our intent to regulate this type of OSWI unit, we are including "cyclonic burn barrel" as another example of an incinerator design in the final rules' definitions of IWI unit and MWC unit. We would like to note that the final OSWI rules regulate only IWI and VSMWC units. For example, if a cyclonic burn barrel is used at a commercial or industrial facility to burn commercial or industrial solid waste, then it would not be subject to the final OSWI rules.

Human Crematories. Two commenters objected to the exemption of human crematories from the proposed rules. Both commenters argued that the incineration of human bodies emits significant quantities of mercury and other hazardous air pollutants. One commenter objected to EPA's conclusion that human bodies are not solid waste and noted that EPA defines solid waste under the SWDA as any "discarded material." The definition also clarifies that a material is "discarded" if it is "burned or incinerated."

Clean Air Act section 129 regulations deal solely with solid waste combustion units. As noted in the preamble to the proposed rules, in considering the nature of human crematories, EPA has determined that the human body should not be labeled or considered "solid waste." Therefore, human crematories are not solid waste combustion units, and are not a subcategory of OSWI for regulation.

We disagree with the commenter's assertions that human bodies are discarded and that CAA section 129 rules must consider a material to be "discarded" if it is "burned or incinerated." The definition of "discarded" referred to by the commenter is found in 40 CFR part 261, which defines "hazardous waste" for the purpose of implementing the hazardous waste program authorized by the SWDA. In defining "hazardous waste," 40 CFR part 261 also defines "solid waste" and elaborates on the meaning of "discarded," which is a term used in the definition of solid waste. However, in doing so, 40 CFR part 261 states explicitly in 40 CFR 261.1(b)(1) that this definition of solid waste is only for the purpose of materials that are hazardous wastes. Much of the complexity and specificity of the 40 CFR part 261 definitions is needed to assure that hazardous waste is properly identified, tracked, transported, and disposed of, and is not inappropriately discarded or abandoned. The 40 CFR part 261 details on the meaning of solid waste and discarded are not found in solid waste definitions within the Resource Conservation and Recovery Act (RCRA) rules pertaining to nonhazardous wastes (e.g., 40 CFR part 240 through 40 CFR 259). The regulatory definitions of "solid waste" and "discarded" found in 40 CFR part 261, therefore, do not apply to nonhazardous solid wastes. Section 129 of the CAA regulates only nonhazardous solid wastes. As described in previous **Federal Register** notices pertaining to the proposed and final CISWI rules (64 FR 67104, November 30, 1999 and 65 FR 75342, December 1, 2000) EPA has adopted, under the joint authority of the CAA and RCRA, a definition of solid waste that is used solely to identify nonhazardous solid waste for the regulatory programs authorized by CAA section 129, such as the final CISWI and OSWI rules. The definition of discarded cited by the commenter is not applicable to CAA section 129 rules. However, as stated in the preamble to the proposed OSWI rules, if EPA or States determine in the future that human crematories should be considered for regulation, they would be addressed under other authorities.

Animal Crematories. One commenter expressed support for the proposed decision to exclude animal crematories as a regulated subcategory of the proposed OSWI rules and supports the proposed exclusion of pathological waste incineration units. The commenter pointed out that the other alternatives to incineration, such as rendering, burial, composting or feeding of the carcass to exotic animals does not address the need for disposal of animal carcasses with an infectious disease. Another commenter contended that animal crematories are solid waste incineration units that must be regulated under CAA section 129.

EPA has not changed our decision to exclude animal crematories and pathological waste incineration units, based on our analysis of their emissions and the adverse impacts that would occur if these units were regulated under the final OSWI rules, as fully described in the preamble to the proposed rules and in the response to comments document.

Additional Possible Subcategories of OSWI Units. In the preamble to the proposed rules, we requested comment on whether other subclasses of OSWI units existed and if any special and/or extenuating circumstances existed that warranted their exclusion from regulation under OSWI. We received only one communication related to this request.

The U.S. Coast Guard (USCG) informed EPA that they were concerned that the rules, as proposed, could be interpreted to include incinerators located on ships. According to the USCG, some of its largest cutter classes have small shipboard solid waste incinerators that are used to dispose of solid waste generated aboard ship while the ship is at sea. The USCG indicated that they believed these incinerators should not be subject to the final OSWI rules.

It was never EPA's intent to regulate incinerators aboard USCG patrol ships or other ships, and EPA's analyses supporting the final OSWI rules have not included information about shipboard incinerators. Thus, EPA has not only replaced the definition of "institution" with "institutional facility" to be consistent with terminology used elsewhere in the final OSWI rules, but we also have defined

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 60

[EPA–HQ–OAR–2009–0559; FRL–9210–8]

RIN 2060–AP90

Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Sewage Sludge Incineration Units

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: This action proposes how EPA will address Clean Air Act requirements to establish new source performance standards for new units and emission guidelines for existing units for specific categories of solid waste incineration units. In previous actions, EPA has promulgated new source performance standards and emission guidelines for large municipal waste combustion units, small municipal waste combustion units, commercial and industrial solid waste incineration units, and other solid waste incineration units. These actions did not establish emission standards for sewage sludge incineration units. In this action, EPA is proposing new source performance standards and emission guidelines for sewage sludge incineration units.

DATES: *Comments.* Comments must be received on or before November 15, 2010, unless a public hearing is held. If a public hearing is held, then comments must be received on or before November 29, 2010. Under the Paperwork Reduction Act, since the Office of Management and Budget is required to make a decision concerning the information collection request between 30 and 60 days after October 14, 2010, a comment to the Office of Management and Budget is best assured of having its full effect if the Office of Management and Budget receives it by November 15, 2010.

Public Hearing. If anyone contacts EPA by October 25, 2010 requesting to speak at a public hearing, EPA will hold a public hearing on October 29, 2010.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–HQ–OAR–2009–0559, by one of the following methods:

http://www.regulations.gov: Follow the on-line instructions for submitting comments.

E-mail: Send your comments via electronic mail to *a-and-r-Docket@epa.gov,* Attention Docket ID No. EPA–HQ–OAR–2009–0559.

Facsimile: Fax your comments to (202) 566–9744, Attention Docket ID No. EPA–HQ–OAR–2009–0559.

Mail: Send your comments to: EPA Docket Center (EPA/DC), Environmental Protection Agency, Mailcode 6102T, 1200 Pennsylvania Ave., NW., Washington, DC 20460, Attention Docket ID No. EPA–HQ–OAR–2009–0559. Please include a total of two copies. We request that a separate copy also be sent to the contact person identified below (see **FOR FURTHER INFORMATION CONTACT**).

Hand Delivery: Deliver your comments to: EPA Docket Center (EPA/DC), EPA West Building, Room 3334, 1301 Constitution Ave., NW., Washington, DC, 20460, Attention Docket ID No. EPA–HQ–OAR–2009–0559. Such deliveries are accepted only during the normal hours of operation (8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays) and special arrangements should be made for deliveries of boxed information.

Instructions: Direct your comments to Docket ID No. EPA–HQ–OAR–2009–0559. The EPA's policy is that all comments received will be included in the public docket and may be made available on-line at *http://www.regulations.gov,* including any personal information provided, unless the comment includes information claimed to be Confidential Business Information or other information whose disclosure is restricted by statute. Do not submit information that you consider to be Confidential Business Information or otherwise protected through *http://www.regulations.gov* or e-mail. The *http://www.regulations.gov* Web site is an "anonymous access" system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through *http://www.regulations.gov,* your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses.

Public Hearing: If a public hearing is held, it will be held at EPA's Campus located at 109 T.W. Alexander Drive in Research Triangle Park, NC, or an alternate site nearby. Contact Ms. Joan Rogers at (919) 541–4487 to request a hearing, to request to speak at a public hearing, to determine if a hearing will be held, or to determine the hearing location. If no one contacts EPA requesting to speak at a public hearing concerning this proposed rule by October 25, 2010, the hearing will be cancelled, and a notification of cancellation will be posted on the following Web site: *http://www.epa.gov/ttn/atw/eparules.html.*

Docket: EPA has established a docket for this action under Docket ID No. EPA–HQ–OAR–2009–0559. All documents in the docket are listed in the *http://www.regulations.gov* index. Although listed in the index, some information is not publicly available, *e.g.,* Confidential Business Information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy form. Publicly available docket materials are available either electronically at *http://www.regulations.gov* or in hard copy at the EPA Docket Center EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the EPA Docket Center is (202) 566–1742.

FOR FURTHER INFORMATION CONTACT: Ms. Amy Hambrick, Natural Resource and Commerce Group, Sector Policies and Programs Division (E143–03), Environmental Protection Agency, Research Triangle Park, North Carolina 27711; *telephone number:* (919) 541–0964; *fax number:* (919) 541–3470; *e-mail address: hambrick.amy@epa.gov.*

SUPPLEMENTARY INFORMATION:

Acronyms and Abbreviations. Several acronyms and terms are used in this preamble. While this may not be an exhaustive list, to ease the reading of this preamble and for reference purposes, the following terms and acronyms are defined here:

7–PAH 7-polycyclic Aromatic Hydrocarbons
ANSI American National Standards Institute
AsvArsenic
ASME American Society of Mechanical Engineers
ASTM American Society of Testing and Materials

HeinOnline -- 75 Fed. Reg. 63260 2010

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 388 of 492

CAA Clean Air Act
CASS Continuous Automated Sampling System
CBI Confidential Business Information
Cd Cadmium
CDD/CDF Dioxins and Dibenzofurans
CDX Central Data Exchange
CEMS Continuous Emissions Monitoring Systems
COMS Continuous Opacity Monitoring System
CPMS Continuous Parametric Monitoring System
CFR Code of Federal Regulations
CISWI Commercial and Industrial Solid Waste Incineration
CO Carbon Monoxide
Cr Chromium
CWA Clean Water Act
EG Emission Guidelines
EJ Environmental Justice
ERT Electronic Reporting Tool
ESP Electrostatic Precipitators
FF Fabric Filter
FB Fluidized Bed
FGR Flue Gas Recirculation
HAP Hazardous Air Pollutants
HCl Hydrogen Chloride
Hg Mercury
HMIWI Hospital, Medical and Infectious Waste Incineration
ICR Information Collection Request
ISTDMS Integrated Sorbent Trap Dioxin Monitoring System
ISTMMS Integrated Sorbent Trap Mercury Monitoring System
LML Lowest Measured Level
MACT Maximum Achievable Control Technology
Mg/dscm Milligrams per Dry Standard Cubic Meter
MH Multiple Hearth
Mn Manganese
MWC Municipal Waste Combustion
NAAQS National Ambient Air Quality Standards
NAICS North American Industrial Classification System
Ng/dscm Nanograms per Dry Standard Cubic Meter
Ni Nickel
NO_X Nitrogen Oxides
NSPS New Source Performance Standards
NTTAA National Technology Transfer and Advancement Act of 1995
OAQPS Office of Air Quality Planning and Standards
O&M Operation and Maintenance
OMB Office of Management and Budget
OPEI Office of Policy, Economics, and Innovation
OSWI Other Solid Waste Incineration
OTM Other Test Method
OW Office of Water
Pb Lead
PCB Polychlorinated Biphenyls
PM Particulate Matter
POTW Publicly Owned Treatment Works
PPM Parts Per Million
PPMV Parts per Million by Volume
PPMVD Parts per Million of Dry Volume
PRA Paperwork Reduction Act
PS Performance Specifications
RCRA Resource Conservation and Recovery Act
RFA Regulatory Flexibility Act
RIA Regulatory Impact Analysis
RTO Regenerative Thermal Oxidizer
SBA Small Business Administration
SCR Selective Catalytic Reduction
SNCR Selective Non-Catalytic Reduction
SO_2 Sulfur Dioxide
SSI Sewage Sludge Incineration
SSM Startup, Shutdown, and Malfunction
TEF Toxic Equivalency Factor
TEQ Toxic Equivalency
THC Total Hydrocarbons
TMB Total Mass Basis
TPD Tons per Day
TPY Tons per Year
TTN Technology Transfer Network
UMRA Unfunded Mandates Reform Act of 1995
UPL Upper Prediction Limit
VCS Voluntary Consensus Standards
WWW Worldwide Web

Organization of This Document. The following outline is provided to aid in locating information in this preamble.

I. General Information
A. Does the proposed action apply to me?
B. What should I consider as I prepare my comments?
II. Background
A. What information is included in this preamble and how is it organized?
B. Where in the CFR will these standards and guidelines be codified?
C. What is the statutory background?
D. What are the primary sources of emissions and what are the emissions?
E. How are the EG implemented?
III. Summary of the Proposed Rules
A. Applicability of the Proposed Standards
B. Summary of the Proposed EG
C. Summary of the Proposed NSPS
D. Summary of Performance Testing and Monitoring Requirements
E. Other Requirements for New and Existing SSI Units
F. Recordkeeping and Reporting Requirements
G. Electronic Data Submittal
H. Title V Permit Requirements
I. Proposed Applicability Dates of the NSPS and EG
IV. Rationale
A. Subcategories
B. Format for the Proposed Standards and Guidelines
C. MACT Floor Determination Methodology
D. Rationale for Beyond-the-Floor Alternatives
E. Rationale for Performance Testing and Monitoring Requirements
F. Rationale for Recordkeeping and Reporting Requirements
G. Rationale for Operator Training and Qualification Requirements
H. Rationale for Siting Requirements
I. What are the SSM provisions?
J. Delegation of Authority To Implement and Enforce These Provisions
K. State Plans
V. Impacts of the Proposed Action
A. Impacts of the Proposed Action for Existing Units
B. Impacts of the Proposed Action for New Units
C. Benefits of the Proposed NSPS and EG
VI. Relationship of the Proposed Action to CAA Sections 112(c)(3) and 112(k)(3)(B)(ii)
VII. Relationship of the Proposed Action to Other SSI Rules for the Use or Disposal of Sewage Sludge
VIII. Statutory and Executive Order Reviews
A. Executive Order 12866: Regulatory Planning and Review
B. Paperwork Reduction Act
C. Regulatory Flexibility Act
D. Unfunded Mandates Reform Act
E. Executive Order 13132: Federalism
F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments
G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks
H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution or Use
I. National Technology Transfer and Advancement Act
J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

I. General Information

A. Does the proposed action apply to me?

Regulated Entities. Although there is not a specific NAICS code for SSI, these units may be operated by municipalities or other entities. The following NAICS codes could apply:

Category	NAICS code	Examples of potentially regulated entities
Solid waste combustors and incinerators	562213	Municipalities with SSI units.
Sewage treatment facilities	221320	

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be affected by the proposed action. To determine whether your facility would be affected by the proposed action, you should examine the applicability criteria in proposed 40 CFR 60.4770 of subpart LLLL and proposed 40 CFR

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60.5005 of subpart MMMM. If you have any questions regarding the applicability of the proposed action to a particular entity, contact the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

B. What should I consider as I prepare my comments?

1. Submitting CBI

Do not submit information that you consider to be CBI electronically through *http://www.regulations.gov* or e-mail. Send or deliver information identified as CBI to only the following address: Ms. Amy Hambrick, c/o OAQPS Document Control Officer (Room C404–02), U.S. EPA, Research Triangle Park, NC 27711, Attention Docket ID No. EPA–HQ–OAR–2009–0559. Clearly mark the part or all of the information that you claim to be CBI. For CBI information in a disk or CD–ROM that you mail to EPA, mark the outside of the disk or CD–ROM as CBI and then identify electronically within the disk or CD–ROM the specific information that is claimed as CBI. In addition to one complete version of the comment that includes information claimed as CBI, a copy of the comment that does not contain the information claimed as CBI must be submitted for inclusion in the public docket. Information marked as CBI will not be disclosed except in accordance with procedures set forth in 40 CFR part 2.

If you have any questions about CBI or the procedures for claiming CBI, please consult the person identified in the **FOR FURTHER INFORMATION CONTACT** section.

2. Tips for Preparing Your Comments

When submitting comments, remember to:

Identify the rulemaking by docket number and other identifying information (*e.g.,* subject heading, **Federal Register** date and page number).

Follow directions. EPA may ask you to respond to specific questions or organize comments by referencing a CFR part or section number.

Explain why you agree or disagree; suggest alternatives and substitute language for your requested changes.

Describe any assumptions and provide any technical information and/or data that you used.

If you estimate potential costs or burdens, explain how you arrived at your estimate in sufficient detail to allow for it to be reproduced.

Provide specific examples to illustrate your concerns and suggest alternatives.

Explain your views as clearly as possible, avoiding the use of profanity or personal threats.

Make sure to submit your comments by the comment period deadline identified in the preceding section titled **DATES.**

3. Docket

The docket number for the proposed action regarding the SSI NSPS (40 CFR part 60, subpart LLLL) and EG (40 CFR part 60, subpart MMMM) is Docket ID No. EPA–HQ–OAR–2009–0559.

4. Worldwide Web

In addition to being available in the docket, an electronic copy of the proposed action is available on the WWW through the TTN Web site. Following signature, EPA posted a copy of the proposed action on the TTN Web site's policy and guidance page for newly proposed or promulgated rules at *http://www.epa.gov/ttn/oarpg.* The TTN Web site provides information and technology exchange in various areas of air pollution control.

II. Background

A. What information is included in this preamble and how is it organized?

In this preamble, EPA summarizes the important features of these proposed standards and guidelines that apply to SSI units. This preamble describes the environmental, energy, and economic impacts of these standards and guidelines; describes the basis for each of the decisions made regarding the proposed standards and guidelines; requests public comments on certain issues; and discusses administrative requirements relative to this action.

B. Where in the CFR will these standards and guidelines be codified?

The CFR is a codification of the general and permanent rules published in the **Federal Register** by the executive departments and agencies of the Federal government. The code is divided into 50 titles that represent broad areas subject to Federal regulation. These proposed rules for solid waste incineration units would be published in Title 40, Protection of the Environment. Part 60 of title 40 includes standards of performance for new stationary sources and EG and compliance times for existing sources. The table below lists the subparts in which the standards and guidelines will be codified.

Title of the regulation	Subpart in Title 40, part 60
Standards of Performance for New Stationary Sources: Sewage Sludge Incineration Units.	Subpart LLLL
Emission Guidelines and Compliance Times for Sewage Sludge Incineration Units.	Subpart MMMM

C. What is the statutory background?

Section 129 of the CAA, titled, "Solid Waste Combustion," requires EPA to develop and adopt NSPS and EG for solid waste incineration units pursuant to CAA sections 111 and 129. A SSI unit is an incinerator that combusts sewage sludge for the purpose of reducing the volume of the sewage sludge by removing combustible matter.

Sections 111(b) and 129(a) of the CAA address emissions from new SSI units, and CAA sections 111(d) and 129 (b) address emissions from existing SSI units. The NSPS are directly enforceable Federal regulations, and under CAA section 129(f)(1), become effective 6 months after promulgation. Under CAA section 129(f)(2), the EG become effective and enforceable 3 years after EPA approves a State plan implementing the EG or 5 years after the date they are promulgated, whichever is sooner. Clean Air Act section 129(a)(1) identifies 5 categories of solid waste incineration units:

- Units that combust municipal waste at a capacity greater than 250 TPD.
- Units that combust municipal waste at a capacity equal to or less than 250 TPD.
- Units that combust hospital, medical, and infectious waste.
- Units that combust commercial or industrial waste.
- Units that combust waste and which are not specifically identified in section 129(a)(1)(A) through (D) are referred to in section 129(a)(1)(E) as "other categories" of solid waste incineration units.

Sewage sludge incinerators, by virtue of having not been specifically identified in section 129(a)(1)(A) through (D), have been interpreted to be part of the broader category of "other categories" of solid waste. EPA has issued emission standards for large and small MWC, HMIWI, CISWI, and OSWI units. However, as explained further in this section of the preamble, none of those emission standards apply to SSI units.

Section 129(g)(1) of the CAA defines "solid waste incineration unit" as "a distinct operating unit of any facility which combusts any solid waste material from commercial or industrial establishments or the general public." Section 129(g)(6) provides that "solid waste" shall have the meaning established by EPA pursuant to its authority under the RCRA.

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US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 390 of 492

US EPA ARCHIVE DOCUMENT

EPA issued emission standards for OSWI units on December 16, 2005 (70 FR 74870). The OSWI standards did not include emission standards for SSI units. EPA received a petition for reconsideration of the OSWI standards on February 14, 2006, regarding the exclusion of certain categories, including SSI.[1] While EPA granted the petition for reconsideration on June 28, 2006, EPA's final review, which became effective January 22, 2007, concluded that no additional changes were necessary to the 2005 OSWI rule (71 FR 36726). That litigation is currently being held in abeyance. However, EPA currently intends to revise the emission standards for OSWI units in the future, and that rulemaking would address all OSWI units except SSI units.

In the OSWI rule issued on December 16, 2005, EPA stated that we were not issuing emission standards under CAA section 129 for SSI units (70 FR 74870). We explained that we would instead regulate SSI units under CAA section 112 because we interpreted CAA section 129(h)(2) as giving EPA the discretion to choose the section of the CAA (*i.e.,* section 112 or section 129) under which to regulate these sources. We reiterated that decision in the response to the petition for reconsideration on this issue. In addition, we stated in the final action, on January 22, 2007, that the 4 specific statutory exemptions from the definition of "solid waste incineration unit" in CAA section 129 (g)(1) were not exclusive, and that section 129(a)(1)(E) does not require EPA to establish emission standards for all other types of incineration units in addition to those identified in section 129(a)(1)(A) through (D) (72 FR 2620). However, since the January 2007 action responding to the petition for reconsideration, the U.S. Court of Appeals for the District of Columbia Circuit (the Court)[2], in June 2007, in a separate decision related to EPA's December 1, 2000, emission standards for CISWI units, held that any unit combusting any solid waste must be regulated under section 129 of the CAA, as explained below.

As part of EPA's December 1, 2000, CISWI rulemaking, EPA defined the term "commercial and industrial waste" to mean solid waste combusted in an enclosed device using controlled flame combustion without energy recovery that is a distinct operating unit of any commercial or industrial facility. On August 17, 2001, EPA granted a request for reconsideration, pursuant to CAA section 307(d)(7)(B), submitted on behalf of the National Wildlife Federation and the Louisiana Environmental Action Network, related to the definition of "commercial and industrial solid waste incineration unit" and "commercial or industrial waste" in EPA's CISWI rulemaking. In granting the petition for reconsideration, EPA agreed to undertake further notice and comment proceedings related to these definitions. In addition, on January 30, 2001, the Sierra Club filed a petition for review in the Court challenging EPA's final CISWI rule. On September 6, 2001, the Court entered an order granting EPA's motion for a voluntary remand of the CISWI rule, without vacatur. On remand, EPA solicited comments on the CISWI Rule's definitions of "solid waste," "commercial and industrial waste" and "CISWI unit." On September 22, 2005, EPA issued the CISWI Definitions Rule, which contained definitions that were substantively the same as those issued before reconsideration. In particular, the 2005 CISWI Definitions Rule defined "commercial or industrial waste" to include only waste that is combusted at a facility that cannot or does not use a process that recovers thermal energy from the combustion for a useful purpose.

EPA received a petition for judicial review of the CISWI Definitions Rule from several environmental organizations. The petitioners challenged the CISWI Definitions Rule on the grounds that its definition of "commercial or industrial waste" was inconsistent with the plain language of CAA section 129, and, therefore, impermissibly constricted the class of "solid waste incineration unit[s]" that were subject to the emission standards of the CISWI Rule. The Court agreed with petitioners and vacated the CISWI Definitions Rule.

In its decision, the Court held that EPA's definition of "commercial or industrial waste," as incorporated in the definition of CISWI units, conflicted with the plain language of CAA section 129(g)(1). That provision defines "solid waste incineration unit" to mean "any facility which combusts any solid waste material" from certain types of establishments, with 4 specific exclusions. The Court stated that, based on the use of the term "any" and the specific exclusions for only certain types of facilities from the definition of "solid waste incineration unit," CAA section 129 unambiguously includes among the incineration units subject to its standards, any facility that combusts any commercial or industrial solid waste material at all—subject only to the 4 statutory exclusions. The Court held that the definitions EPA promulgated in the CISWI Definitions Rule constricted the plain language of CAA section 129(g)(1), because the CISWI Definitions Rule excluded from its universe operating units that combusted solid waste and were designed for or operated with energy recovery.

The rationale EPA provided in 2007 for not regulating SSI units under section 129 is squarely in conflict with the Court's 2007 holding in *NRDC* v. *EPA*. Specifically, the Court stated that the 4 enumerated exemptions in section 129(g)(1) are in fact exclusive, and EPA lacked authority to create additional exemptions. The Court also rejected EPA's interpretation of section 129(h)(2), as articulated in the 2007 notice. The Court found that section 129(h)(2) "simply directs EPA in plain terms to subject a solid waste combustion facility exclusively to section 129 standards, and not to section 112," and that the provision confers no discretion in this respect[3].

Further, EPA has historically taken the position that sewage sludge is solid waste under the RCRA. EPA has taken this position in an EPA letter dated February 12, 1988, to Thomas A. Corbett, Environmental Chemist I, New York State Department of Environmental Quality addressing the regulatory status of certain sewage sludge, as well as in its 1980 Identification and Listing of Hazardous Waste rulemaking (45 FR 33097, May 19, 1980) (included in the docket for this proposed rulemaking).

Finally, on June 4, 2010, EPA proposed a definition of non-hazardous solid waste (75 FR 31844) under the RCRA which is consistent with this historical interpretation. In that proposal, EPA explained its interpretation for purposes of that definition that sewage sludge is solid waste, and, therefore, unit(s) combusting sewage sludge should be regulated under CAA section 129. Although EPA has not taken final action on that proposed rule and will consider all public comments received before taking final action, the proposed rule represents EPA's most recent interpretation regarding this issue and is consistent with its historical interpretation under the RCRA. Therefore, EPA is proposing emission standards for SSI units under CAA section 129.

On September 9, 2009, EPA received a letter from the National Association of Clean Water Agencies stating that SSI units should be regulated under section

[1] *Sierra Club* v. *EPA;* DC Cir. Nos. 06–1066, 07–1063.

[2] *NRDC* v. *EPA;* 489 F. 3d. at 1257–8.

[3] *NRDC* v. *EPA;* 489 F. 3d. at 1260.

HeinOnline -- 75 Fed. Reg. 63263 2010

112(d) of the Act (included in the docket of today's proposed rulemaking). The National Association of Clean Water Agencies claimed that SSI units are within the scope of the Clean Water Act's definition of "publicly owned treatment works," and that section 112(e)(5) directs EPA to issue emissions standards under section 112(d) for publicly owned treatment works as defined by the CWA. However, EPA issued emissions standards for POTW in 1999 and did not include standards for SSI units in those regulations [4]. In fact, in the proposed emissions standards for POTW, EPA stated that "[s]ewage sludge incineration will be regulated under section 129 of the CAA, and will be included in the source category Other Solid Waste Incinerators[.]" [5] Therefore, EPA has taken the position in its regulation of POTW under the Clean Air Act that section 112(e)(5) does not apply to SSI units and for this reason did not regulate them in its POTW section 112(d) emissions standards. EPA solicits comment on National Association of Clean Water Agencies' claim.

EPA considers SSI units to be "other solid waste incineration units," since that category is intended to encompass all solid waste incineration units that are not included in the first 4 categories identified in CAA section 129 (a) through (d). EPA is proposing, and intends to take final action on, emission standards for SSI units in advance of its re-issuance of emission standards for the remaining OSWI units because these emission standards are needed as part of EPA's fulfillment of its obligations under CAA sections 112(c)(3) and (k)(3)(B)(ii). Clean Air Act section 112(k)(3)(B)(ii) calls for EPA to identify at least 30 HAP which, as the result of emissions from area sources, pose the greatest threat to public health in the largest number of urban areas. EPA must then ensure that sources representing 90 percent of the aggregate area source emissions of each of the 30 identified HAP are subject to standards pursuant to section 112(d) [6]. Sewage Sludge Incineration units are one of the source categories identified for regulation to meet the 90 percent requirement for 7–PAH, Cd, Cr, CDD/CDF, Pb, Mn, Hg, Ni and PCB. EPA is ordered by the Court to satisfy its obligation under section 112(c)(3) and (k)(3)(B)(ii) by January 16, 2011 [7]. Therefore, EPA is proposing and intends to finalize the SSI standards prior to taking action on the remaining source categories that will be regulated under section 129(a)(1)(E).

D. What are the primary sources of emissions and what are the emissions?

Sewage sludge incineration units may be operated by municipalities or other entities. Incineration continues to be used to dispose of sewage sludge, but is increasingly becoming less common. Combustion of solid waste, and specifically sewage sludge, causes the release of a wide array of air pollutants, some of which exist in the waste feed material and are released unchanged during combustion, and some of which are generated as a result of the combustion process itself. The pollutants for which numerical limits must be established, as specified in section 129 of the CAA, include Cd, CO, CDD/CDF, HCl, Hg, NO_X, opacity (where appropriate), PM, Pb, and SO_2. Emissions of the CAA section 129 pollutants from SSI units come from the SSI unit's stack. Fugitive opacity and PM emissions also occur from ash handling. Additional pollution controls will increase costs for facilities that continue to use the incineration disposal method. If the additional costs are high enough, many entities may choose to adopt alternative disposal methods (*e.g.,* surface disposal in landfills or other beneficial land applications).

E. How are the EG implemented?

Standards of performance for solid waste incineration units promulgated under CAA sections 111 and 129 consist of both NSPS applicable to new units, and EG applicable to existing units. Unlike the NSPS, the EG are not themselves directly enforceable. Rather, the EG are implemented and enforced through either an EPA-approved State plan or a promulgated Federal plan. States are required to submit a plan to implement and enforce the EG to EPA for approval not later than 1 year after EPA promulgates the EG (CAA section 129(b)(2)). The State plan must be "at least as protective as" the EG and must ensure compliance with all applicable requirements not later than 3 years after the State plan is approved by EPA, but not later than 5 years after the relevant EG are promulgated. Likewise, the requirements of the State plan are to be effective as expeditiously as possible following EPA approval of the plan, but must be effective no later than 3 years after the State plan is approved or 5 years after the EG are promulgated, whichever is earlier (CAA section 129(f)(2)). EPA's procedures for submitting and approving State plans are set forth in 40 CFR part 60, subpart B. When a State plan is approved by EPA, the plan requirements become federally enforceable, but the State has primary responsibility for implementing and enforcing the plan.

EPA is required to develop, implement, and enforce a Federal plan for solid waste incineration units located in any State which has not submitted an approvable State plan within 2 years after the date of promulgation of the relevant EG (CAA section 129(b)(3)). The Federal plan must assure that each solid waste incineration unit subject to the Federal plan is in compliance with all provisions of the EG not later than 5 years after the date the relevant guidelines are promulgated. EPA views the Federal plan as a "place-holder" that remains in effect only until such time as a State without an approved plan submits and receives EPA approval of its State plan. Once an applicable State plan has been approved, the requirements of the Federal plan no longer apply to solid waste incineration units covered by that State plan.

III. Summary of the Proposed Rules

This preamble discusses the proposed standards and guidelines as they apply to the owner or operator of a new or existing SSI unit. This preamble also describes the major requirements of the SSI regulations. For a full description of the proposed requirements and compliance times, see the attached regulations.

A. Applicability of the Proposed Standards

The proposed standards and guidelines apply to owners or operators of an incineration unit burning solid waste at wastewater treatment facilities (as defined in 40 CFR 60.4780 and 40 CFR 60.5065). A SSI unit is an enclosed device using controlled flame combustion that burns sewage sludge for the purpose of reducing the volume of the sewage sludge by removing combustible matter. The affected facility is each individual SSI unit. The SSI standards in subparts LLLL and MMMM apply to new and existing SSI units that burn sewage sludge as defined in the subparts.

B. Summary of the Proposed EG

EPA is proposing 2 subcategories for existing sources based on their incinerator design: (1) MH incinerators and (2) FB incinerators. Table 1 of this preamble summarizes the proposed

[4] *See* 64 FR 57572 (Oct. 26, 1999).
[5] *See* 63 FR 66084, 66087 (Dec. 1, 1998).
[6] CAA section 112(c)(3) and section 112(k)(3)(B)(ii).
[7] *Sierra Club* v. *Jackson;* D.C.D. No. 1:01CV01537.

HeinOnline -- 75 Fed. Reg. 63264 2010

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 392 of 492

emission limits for existing SSI units for each subcategory. These standards would apply at all times.

TABLE 1—PROPOSED EMISSION LIMITS FOR EXISTING SSI UNITS

Pollutant	Units	Emission limit for MH incinerators	Emission limit for FB incinerators
Cd	mg/dscm @ 7% O_2	0.095	0.0019
CDD/CDF, TEQ	ng/dscm @ 7% O_2	0.32	0.056
CDD/CDF, TMB	ng/dscm @ 7% O_2	5.0	0.61
CO	Ppmvd @ 7% O_2	3,900	56
HCl	Ppmvd @ 7% O_2	1.0	0.49
Hg	mg/dscm @ 7% O_2	0.02	0.0033
NO_X	Ppmvd @ 7% O_2	210	63
Opacity	%	10	0
Pb	mg/dscm @ 7% O_2	0.30	0.0098
PM	mg/dscm @ 7% O_2	80	12
SO_2	Ppmvd @ 7% O_2	26	22

C. Summary of the Proposed NSPS

As explained in IV.C.2, EPA is proposing to require all new sources, regardless of incinerator design, meet the emission limits based on the best-performing FB incinerator. Table 2 of this preamble summarizes the proposed emission limits for SSI units subject to the NSPS. These standards would apply at all times.

TABLE 2—PROPOSED EMISSION LIMITS FOR NEW SSI UNITS

Pollutant	Units	Emission limit for MH incinerators	Emission limit for FB incinerators
Cd	mg/dscm @ 7% O_2	0.00051	0.00051
CDD/CDF, TMB	ng/dscm @ 7% O_2	0.024	0.024
CDD/CDF, TEQ	ng/dscm @ 7% O_2	0.0022	0.0022
CO	ppmvd @ 7% O_2	7.4	7.4
HCl	ppmvd @ 7% O_2	0.12	0.12
Hg	mg/dscm @ 7% O_2	0.0010	0.0010
NO_X	ppmvd @ 7% O_2	26	26
Opacity	%	0	0
Pb	mg/dscm @ 7% O_2	0.00053	0.00053
PM	mg/dscm @ 7% O_2	4.1	4.1
SO_2	ppmvd @ 7% O_2	2.0	2.0

D. Summary of Performance Testing and Monitoring Requirements

The proposed rule would require all new and existing SSI units to demonstrate initial and annual compliance with the emission limits and combustion stack opacity limits using EPA-approved emission test methods.

For existing SSI units, the proposed rule would require initial and annual emissions performance tests (or continuous emissions monitoring as an alternative), continuous parameter monitoring, and annual inspections of air pollution control devices that may be used to meet the emission limits. Additionally, existing units would also be required to conduct initial and annual opacity tests for the combustion stack and a one-time Method 22 (*see* 40 CFR part 60, appendix A–7) visible emissions test of the ash handling operations to be conducted during the next compliance test.

For new SSI units, the proposed rule would require initial and annual emissions performance tests (or continuous emissions monitoring as an alternative), bag leak detection systems for FF controlled units, as well as continuous parameter monitoring and annual inspections of air pollution control devices that may be used to meet the emission limits. The proposal would require all new SSI units to install a CO CEMS. New units would also be required to conduct initial and annual opacity tests for the combustion stack and Method 22 visible emissions testing of the ash handling operations would be required during each compliance test.

For existing SSI units, use of Cd, CO, HCl, NO_X, PM, Pb or SO_2 CEMS; ISTMMS; and ISTDMS (continuous sampling with periodic sample analysis) would be approved alternatives to parametric monitoring and annual compliance testing. For new SSI units, CO CEMS would be required, and use of Cd, HCl, NO_X, PM, Pb or SO_2 CEMS; ISTMMS; and ISTDMS (continuous sampling, with periodic sample analysis) would be approved alternatives to parametric monitoring and annual compliance testing.

E. Other Requirements for New and Existing SSI Units

Owners or operators of new or existing SSI units would be required to meet operator training and qualification requirements, which include: Ensuring that at least 1 operator or supervisor per facility complete the operator training course, that qualified operator(s) or supervisor(s) complete an annual review or refresher course specified in the regulation, and that they maintain plant-specific information, updated annually, regarding training.

Owners or operators of new SSI units would be required to conduct a siting analysis, which includes submitting a report that evaluates site-specific air

HeinOnline -- 75 Fed. Reg. 63265 2010

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 393 of 492

pollution control alternatives that minimize potential risks to public health or the environment, considering costs, energy impacts, nonair environmental impacts and any other factors related to the practicability of the alternatives.

F. Recordkeeping and Reporting Requirements

Records of the initial and all subsequent stack or PS tests, deviation reports, operating parameter data, continuous monitoring data, maintenance and inspections on the air pollution control devices, the siting analysis (for new units only), monitoring plan and operator training and qualification must be maintained for 5 years. The results of the stack tests and PS tests and values for operating parameters would be required to be included in initial and subsequent compliance reports.

G. Electronic Data Submittal

Electronic data collection is commonly employed to collect and analyze data for a variety of applications, such as the CAA Acid Rain Program. Both industry and the public benefit from electronic data collection in that it increases the ease of submitting the data as well as increasing the accessibility and transparency of these data.

EPA must have performance test data to conduct effective reviews of CAA sections 112 and 129 standards, as well as for many other purposes including compliance determinations, emission factor development and annual emission rate determinations. In conducting these required reviews, EPA has found it ineffective and time consuming, not only for us, but also for regulatory agencies and source owners and operators to locate, collect, and submit emissions test data because of varied locations for data storage and varied data storage methods. One improvement that has occurred in recent years is the availability of stack test reports in electronic format as a replacement for cumbersome paper copies.

In this action, EPA is proposing a step to improve data accessibility and increase the ease and efficiency of reporting for sources. Specifically, we are proposing that owners and operators of SSI facilities be required to submit to EPA's ERT database the electronic copies of reports of certain performance tests required under this rule. Data will be entered through an electronic emissions test report structure called the ERT that will be used whenever emissions testing is conducted. The ERT was developed with input from stack testing companies who generally collect and compile performance test data electronically and offices within State and local agencies that perform field test assessments. The ERT is currently available, and access to direct data submittal to EPA's electronic emissions database (WebFIRE) will become available by December 31, 2011.

The requirement to submit source test data electronically to EPA would not require any additional performance testing and would apply to those performance tests conducted using test methods that are supported by the ERT. The ERT contains a specific electronic data entry form for most of the commonly used EPA reference methods. The Web site listed below contains a listing of the pollutants and test methods supported by the ERT. In addition, when a facility submits performance test data to WebFIRE, there will be no additional requirements for emissions test data compilation. Moreover, we believe industry will benefit from development of improved emission factors, fewer follow-up information requests, and better regulation development as discussed below. The information to be reported is already required for the existing test methods and is necessary to evaluate the conformance to the test method.

One major advantage of submitting source test data through the ERT is that it would provide a standardized method to compile and store much of the documentation required to be reported by this rule while clearly stating what testing information would be required. Another important benefit of submitting these data to EPA at the time the source test is conducted is that it should substantially reduce the effort involved in data collection activities in the future. If EPA had source category data, there would likely be fewer or less substantial data collection requests in conjunction with prospective residual risk assessments or technology reviews. This results in a reduced burden on both affected facilities (in terms of reduced manpower to respond to data collection requests) and EPA (in terms of preparing and distributing data collection requests).

State/local/tribal agencies may also benefit from the reduced burden associated with receipt of electronic information opposed to having to process paper forms. Finally, another benefit of submitting these data to WebFIRE electronically is that these data would improve greatly the overall quality of the existing and new emission factors by supplementing the pool of emissions test data upon which the emission factor is based and by ensuring that data are more representative of current industry operational procedures. A common complaint heard from industry and regulators is that emission factors are outdated or not representative of a particular source category. Receiving and incorporating data for most performance tests would ensure that emission factors, when updated, represent accurately the most current operational practices. In summary, receiving test data already collected for other purposes and using them in the emission factors development program would save industry, State/local/tribal agencies and EPA, time and money and work to improve the quality of emission inventories and related regulatory decisions.

As mentioned earlier, the electronic database that would be used is EPA's WebFIRE, which is a Web site accessible through EPA's TTN Web. The WebFIRE Web site was constructed to store emissions test data for use in developing emission factors. A description of the WebFIRE database can be found at *http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main*.

The ERT would be able to transmit the electronic report through EPA's CDX network for storage in the WebFIRE database. Although ERT is not the only electronic interface that can be used to submit source test data to the CDX for entry into WebFIRE, it makes submittal of data very straightforward and easy. A description of the ERT can be found at *http://www.epa.gov/ttn/chief/ert/ert_tool.html*.

H. Title V Permit Requirements

All new and existing SSI units regulated by the final SSI rule would be required to apply for and obtain a Title V permit. These Title V operating permits would assure compliance with all applicable requirements for regulated SSI units, including all applicable CAA section 129 requirements.[8]

The permit application deadline for a CAA section 129 source applying for a Title V operating permit depends on when the source first becomes subject to the relevant Title V permits program. If a regulated SSI unit is a new unit and is not subject to an earlier permit application deadline, a complete Title V permit application must be submitted on or before the relevant date below.

- For a SSI unit that commenced operation as a new source on or before the promulgation date of 40 CFR part 60, subpart LLLL, the source must submit a complete Title V permit application no later than 12

[8] 40 CFR 70.6(a)(1), 70.2, 71.6(a)(1) and 71.2.

HeinOnline -- 75 Fed. Reg. 63266 2010

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 394 of 492

months after the promulgation date of 40 CFR part 60, subpart LLLL; or

- For a SSI unit that commences operation as a new source after the promulgation of 40 CFR part 60, subpart LLLL, the source must submit a complete Title V permit application no later than 12 months after the date the SSI unit commences operation as a new source.[9]

If the SSI unit is an existing unit and is not subject to an earlier permit application deadline, then the source must submit a complete Title V permit application by the earlier of the following dates:

- Twelve months after the effective date of any applicable EPA-approved CAA section 111(d)/129 plan (i.e., an EPA approved State or tribal plan that implements the SSI EG); or
- Twelve months after the effective date of any applicable Federal plan; or
- Thirty-six months after promulgation of 40 CFR part 60, subpart MMMM.

For any existing SSI unit not subject to an earlier permit application deadline, the application deadline of 36 months after the promulgation of 40 CFR part 60, subpart MMMM, applies regardless of whether or when any applicable Federal plan is effective, or whether or when any applicable CAA section 111(d)/129 plan is approved by EPA and becomes effective. (*See* CAA sections 129(e), 503(c), 503(d), and 502(a) and 40 CFR 70.5(a)(1)(i) and 71.5(a)(1)(i).)

If the SSI unit is subject to Title V as a result of some triggering requirement(s) other than those mentioned above, for example, a SSI unit may be a major source (or part of a major source), then you may be required to apply for a Title V permit prior to the deadlines specified above. If more than 1 requirement triggers a source's obligation to apply for a Title V permit, the 12-month time frame for filing a Title V permit application is triggered by the requirement which first causes the source to be subject to Title V.[10]

For additional background information on the interface between CAA section 129 and Title V, including EPA's interpretation of section 129(e), information on updating existing Title V permit applications and reopening existing Title V permits, see the final "Federal Plan for Commercial and Industrial Solid Waste Incineration," October 3, 2003 (68 FR 57518), as well as the "Summary of Public Comments and Responses" document in the OSWI docket (EPA–HQ–OAR–2003–0156).

[9] CAA section 503(c) and 40 CFR 70.5(a)(1)(i) and 71.5(a)(1)(i).

[10] CAA section 503(c) and 40 CFR 70.3(a) and (b), 70.5(a)(1)(i), 71.3(a) and (b) and 71.5(a)(1)(i).

I. Proposed Applicability Dates of the NSPS and EG

Under these proposed standards, new SSI units that commence construction on or after October 14, 2010 or that are modified 6 months or more after the date of promulgation, would have to meet the NSPS emission limits of 40 CFR part 60, subpart LLLL within 6 months after the promulgation date of the standards or upon startup, whichever is later.

Under the proposed EG, and consistent with CAA section 129(b)(2) and 40 CFR part 60, subpart B, states are required to submit State plans containing the existing source emission limits of subpart MMMM of this part, and other requirements to implement and enforce the EG within 1 year after promulgation of the EG. State plans apply to existing SSI in the State (including SSI that are modified prior to the date 6 months after promulgation) and must be at least as protective as the EG.

The proposed EG would require existing SSI to demonstrate compliance with the standards as expeditiously as practicable after approval of a State plan, but no later than 3 years from the date of approval of a State plan or 5 years after promulgation of the EG, whichever is earlier. Consistent with CAA section 129, EPA expects states to require compliance as expeditiously as practicable. However, because we believe that many SSI units will find it necessary to retrofit existing emissions control equipment and/or install additional emissions control equipment in order to meet the proposed limits, EPA anticipates that states may choose to provide the 3 year compliance period allowed by CAA section 129(f)(2). If EPA does not approve a State plan or issue a Federal plan, then the compliance date is 5 years from the date of the final rule.

EPA intends to develop a Federal plan that will apply to existing SSI units in any State that has not submitted an approved State plan within 2 years after promulgation of the EG. The proposed EG would allow existing SSI units subject to the Federal plan up to 5 years after promulgation of the EG to demonstrate compliance with the standards, as allowed by CAA section 129(b)(3).

IV. Rationale

All standards established pursuant to CAA section 129(a)(2) must reflect MACT, the maximum degree of reduction in emissions of certain listed air pollutants that the Administrator, taking into consideration the cost of achieving such emission reduction, and any nonair quality health and environmental impacts and energy requirements, determines is achievable for each category. This level of control is referred to as a MACT standard.

The minimum level of stringency is called the "MACT floor," and CAA section 129(a)(2) sets forth differing levels of minimum stringency that EPA's standards must achieve, depending on whether they regulate new or existing sources. For new units, the MACT floor cannot be less stringent than the emission control that is achieved in practice by the best-controlled similar unit. Emission standards for existing units may be less stringent than standards for new units, but cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of units in the category. These requirements constitute the MACT floor for new and existing sources; however, EPA may not consider costs or other impacts in determining the MACT floors. EPA must consider cost, nonair quality health and environmental impacts and energy requirements in connection with any standards that are more stringent than the MACT floor (beyond-the-floor controls).

In general, MACT analyses involve an assessment of the emissions from the best-performing units in a source category. The assessment can be based on actual emissions data, on knowledge of the air pollution control in place in combination with actual emissions data, or on State regulatory requirements that may enable EPA to estimate the actual performance of the regulated units and other relevant emissions information. For each source category, the assessment involves a review of actual emissions data with an appropriate accounting for emissions variability. Other methods of estimating emissions can be used provided that the methods can be shown to provide reasonable estimates of the actual emissions performance of a source or sources.

As stated earlier, the CAA requires that MACT for new sources be no less stringent than the emission control achieved in practice by the best-controlled similar unit. Under CAA section 129(a)(2), EPA determines the best control currently in use for a given pollutant and establishes the MACT floor at the emission level achieved by that control with an appropriate accounting for emissions variability. Once the MACT floor determinations are done for new sources, we consider regulatory options more stringent than the MACT floor level of control that could result in reduced emissions. More

HeinOnline -- 75 Fed. Reg. 63267 2010

US EPA ARCHIVE DOCUMENT

stringent potential regulatory options might reflect controls used on other sources that could be applied to the source category in question.

For existing sources, the CAA requires that MACT be no less stringent than the average emission limitation achieved by the best-performing 12 percent of units in a source category. EPA must determine some measure of the average emission limitation achieved by the best-performing 12 percent of units in each subcategory to establish the MACT floor for existing units. Once the MACT floor determinations are done for each subcategory of existing units, we consider various regulatory options more stringent than the MACT floor level of control that could result in lower emissions. More stringent beyond-the-floor regulatory options reflect other or additional controls capable of achieving better performance.

A. Subcategories

The CAA allows EPA to subcategorize a source category based on differences in class, type, or size. EPA is proposing to subcategorize SSI units into 2 subcategories, based on differences in the design type of the incineration units.

To EPA's knowledge, there are 2 types of incinerators currently used to combust sewage sludge: MH and FB incinerators. Of the 218 SSI units in operation, 55 use the FB design, while 163 use the MH design. These two types use significantly different combustor designs. A. MH incinerator consists of a vertical cylinder containing from 6 to 12 horizontal hearths and a rotating center shaft with rabble arms. Biosolids (*i.e.,* sewage sludge) enter the top hearth and flow downward while combustion air flows from the bottom to the top. The MH is divided into 3 zones. The upper hearths comprise the drying zone in which water and some organic compounds are evaporated from the biosolids. The middle hearths comprise the combustion zone. The exposure to the combustion gas and biosolids to high temperature is only in this section and residence time of the gas is short. The lower hearths form the cooling zone, where ash is cooled as its heat is transferred to the incoming combustion air. Some MH incinerators have an additional zone above the drying hearths which can be used as an afterburner to combust the organics and CO generated in the lower hearths. Multiple hearth units are sensitive to any change in the feed, such as feed moisture and feed rate. Since the emissions of CO and organic compounds are dependent on the temperature of the top hearth, any changes occurring in the biosolids input can cause operational upset with momentary drop in top hearth temperature and an increase in emissions. In order to assure proper startup, shutdown, and modulation of combustion temperatures, fuels (*e.g.,* natural gas and distillate oil) may be added to the combustion chamber.

In a FB incinerator, the reactor is a vertical steel shell comprised of 4 sections. The lower section is called the windbox and acts as a plenum in which combustion air is received. Above the windbox is a refractory arch. The section above the refractory arch is filled with sand and is called the bed area or combustion zone. Hot air is distributed homogeneously throughout the FB. The intensive mixing of the solid and gas in the fluidized State results in a high heat transfer resulting in rapid combustion of the biosolids. The section above the bed is the freeboard or disengagement zone. The freeboard provides 6 to 7 seconds of gas residence time, which completes the combustion of any volatile hydrocarbons escaping from the bed.

The differences between the 2 combustor designs result in significant differences in emissions, size of the flue gas stream, ability to handle variability in the feeds, control of temperature and other process variables, auxiliary fuel use and other characteristics. Generally, FB incinerators have lower emissions of NO_X, organic compounds, CDD/CDF and CO than MH incinerators due to the combustion temperature, mixing, and residence time differences. Intermittent operations, involving frequent shutdown and startup, are generally easier and more rapid for FB incinerators than MH incinerators. Additionally, FB incinerators have better capability of handling feeds with varying moisture and volatile contents. Lower excess air and auxiliary fuel is required to operate FB incinerators resulting in smaller flue gas flow rates and consequently smaller sized downstream control devices.

To reflect the differences in their combustion mechanisms, 2 subcategories, FB and MH, were developed for new and existing SSI sources.

We are requesting comment on whether other combustor designs are used at SSI units, and, if so, we are requesting emissions information from stack tests conducted on those units.

We are also aware that sewage sludge may be incinerated in certain commercial or industrial units and energy recovery units that are subject to the recently proposed CISWI rules (40 CFR part 60, subparts CCCC and DDDD of this part). Therefore, we are proposing that sewage sludge that is incinerated in combustion units located at commercial and industrial facilities be subject to the CISWI standards rather than the SSI standards. We are requesting comment on the appropriateness of this proposed decision. While we are not aware of other combustion units that incinerate sewage sludge, we are requesting comment on whether such other units exist, and, if so, what the content of the combusted materials is (i.e., constituents in the sewage sludge), the amount of sewage sludge incinerated, and whether these units should be subject to SSI standards or subject to other section 129 standards.

B. Format for the Proposed Standards and Guidelines

The EPA selected emission limitations as the format for the proposed SSI standards and guidelines. As required by section 129 of the CAA, the proposed standards and guidelines would establish numerical emission limitations for Cd, CO, CDD/CDF, HCl, Pb, Hg, opacity, NO_X, PM, and SO_2. For regulating Cd, Pb, Hg, and total PM, the EPA is proposing numerical concentration limits in milligrams per dry standard cubic meter (mg/dscm). Emission limits of CDD/CDF are in units of total ng/dscm, based on measuring emissions of each tetra through octa-chlorinated dibenzo-pdioxin and dibenzofuran and summing them. For CO, HCl, NO_X, and SO_2, the proposed standards and guidelines are volume concentrations, ppmvd. Standards and guidelines for opacity are proposed on a percentage basis. All measurements are corrected to 7 percent oxygen to provide a common basis.

The EPA selected an outlet concentration format because outlet data are available for SSI units and characterize the best performing SSI units. In addition to numerical emission limits, the SSI standards include operator training and qualification provisions and siting requirements (for new sources only) as required by section 129.

EPA understands that the metal emissions from SSI units are influenced by the metals content in the sludge burned. It is not clear from the data available to EPA whether the sludge burned during the emissions tests (that were used to establish the MACT floor) represent typical sludge composition/concentrations or are closer to minimum or maximum levels. We are also requesting additional sludge metals content information from the best performing sources collected during emissions stack tests so that we can

US EPA ARCHIVE DOCUMENT

HeinOnline -- 75 Fed. Reg. 63268 2010

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 396 of 492

appropriately account for any differences in metal content of the sludge in the final standards.

C. MACT Floor Determination Methodology

Section 129 (a)(2) of the CAA requires that EPA determine the emissions control that is achieved in practice by the best-controlled similar unit when establishing the MACT floor for new units, and the average emission limitation achieved by the best-performing 12 percent of units when establishing the MACT floor for existing units. Section 129(a)(4) states that the standards promulgated under section 129 shall specify a numerical emissions limitation for each pollutant enumerated in that provision. Section 129(a)(2) requires EPA to establish standards requiring the "maximum degree of reduction of emissions." "Maximum degree of reduction of emissions," in turn is defined in section 129(a)(2) as including a minimum level of control (known as the MACT floor). EPA's long-standing interpretation is that the combination of section 129(a)(4), requiring numerical standards for each enumerated pollutant, and section 129(a)(2), requiring that each such standard be at least as stringent as the MACT floor, supports that floors be derived for each pollutant based on the emissions levels achieved for each pollutant.

The emission limits proposed also account for variability. EPA must exercise its judgment, based on an evaluation of the relevant factors and available data, to determine the level of emissions control that has been achieved by the best performing SSI units under variable conditions. The Court has recognized that EPA may consider variability in estimating the degree of emission reduction achieved by the best-performing sources and in setting MACT floors that the best performing sources can expect to meet "every day and under all operating conditions.[11]

Maximum Achievable Control Technology and other technology-based standards are necessarily derived from short-term emissions test data, but such data are not representative of the range of operating conditions that the best-performing facilities face on a day-to-day basis. In statistical terms, each test produces a limited data sample, and not a complete enumeration of the available data for performance of the unit over a long period of time[12]. EPA, therefore, often needs to adjust the short-term data to account for these varying conditions. The types of variability that EPA attempts to account for include operational distinctions between and within tests at the same unit.

"*Between-test variability*" can occur even where conditions appear to be the same when 2 or more tests are conducted. Variations in emissions may be caused by different settings for emissions testing equipment, different field teams conducting the testing, differences in sample handling or different laboratories analyzing the results. Identifying an achieved emissions level for best-performing sources needs to account for these differences between tests, in order for "a uniform standard [to] be capable of being met under most adverse conditions which can reasonably be expected to recur[.]"[13]

The same types of differences leading to between-test variability also cause variations in results between various runs comprising a single test, or "within-test variability." A single test at a unit usually includes at least 3 separate test runs. (*See* 40 CFR 63.7(e)(3) for MACT standards under CAA section 112 and 40 CFR 60.8(f) for NSPS under CAA section 111). Each data point should be viewed as a snapshot of actual performance. Along with an understanding of the factors that may affect performance, each of these snapshots gives information about the normal and unavoidable variation in emissions that would be expected to recur over time.

One approach to estimating future variability that may be used is the UPL. The UPL is an appropriate statistical tool to use in determining variability when there is a limited sampling of the source category. An UPL (*i.e.,* sample mean plus a multiplier times the standard deviation) for a future observation is the upper end of a range of values that will, with a specified degree of confidence, contain the next (or some other pre-specified) randomly selected observation from a population. In other words, UPL estimates the high end of the range in which future values will fall, with a certain probability, based on present or past background samples taken. Given this definition, the UPL is the value below which the average result of a future emissions test consisting of 3 test run observations (3-run average) from the source to be tested is expected to fall below with a stated level of confidence (*e.g.,* 99 percent). Therefore, should a future test condition be selected randomly from any of these sources, we can be 99 percent confident that the reported level will fall below a MACT floor emissions limit calculated using an UPL. Since a source must demonstrate compliance with the MACT floor using the average of a 3-run test, the appropriate test condition to use to assess variability is 3 runs. If a source had to demonstrate compliance by showing that each individual test run was below the MACT floor emission limit, it would be appropriate to use a future test condition of 1 run. (*See* further discussion in section IV.C.2 of this preamble.) We are soliciting comment on all aspects of our variability analysis.

EPA understands that the metal emissions from a SSI unit may vary due to the metals content in the sludge burned. We are requesting additional sludge metals content information collected during emissions stack tests so that we can appropriately account for any differences in metal content of the sludge in the final standards.

1. MACT Floor Analyses Data Set

As stated earlier, the CAA requires that MACT for new sources be no less stringent than the emissions control achieved in practice by the best-controlled similar unit. For existing sources, the CAA requires that MACT be no less stringent than the average emission limitation achieved by the best-performing 12 percent of units in a source category. Because the number of units in different subcategories may be different, the number of units that represent the best-performing 12 percent of sources in different subcategories may be different. Also, mathematically, the number of units that represent the best-performing 12 percent of the units in a subcategory will not always be an integer. To ensure that each MACT standard is based on at least 12 percent of the units in a subcategory, EPA has determined that it is appropriate to always round up to the nearest integer when 12 percent of a given subcategory is not an integer. For example, if 12 percent of a subcategory is 4.1, the standards will be based on the best-performing 5 units even though rounding conventions would normally lead to rounding down to 4 units. As discussed earlier, there are 218 SSI units, composed of 163 MH incinerators and 55 FB incinerators. This procedure results in a top 12 percent comprised of

[11] *Mossville Environmental Action Now* v. *EPA;* 370 F.3d at 1232, 1241–42 DC Cir 2004.

[12] *Natrella, Experimental Statistics,* National Bureau of Standards Handbook 91, chapter 1 revised ed., 1966.)

[13] National Lime Association I, 627 F.2d at 431, n. 46 and Portland Cement Association, 486 F.2d at 396, "a single test offered a weak basis" for inferring that plants could meet the standards.

HeinOnline -- 75 Fed. Reg. 63269 2010

US EPA ARCHIVE DOCUMENT

20 MH incinerators and 7 FB incinerators.

Information collection request surveys were sent to 9 municipalities operating SSI units to collect emissions information. To select the surveyed owners, EPA reviewed the inventory of SSI units for the control devices being operated, and identified a subset of units expected to have the lowest emissions based on the type of unit and the installed air pollution controls. EPA believes these controls achieve the most reductions possible for the CAA section 129 pollutants, and thereby allow EPA to identify for each pollutant the units with the lowest emissions. For example, units were selected that operated more than one of the following technologies: activated carbon injection to reduce Hg and CDD/CDF; regenerative thermal oxidizer or afterburners to reduce CO and organics; wet ESP to reduce fine particulate; high efficiency scrubbers such as packed bed scrubbers and impingement tray scrubbers to reduce PM, Cd, Pb, particulate Hg and acid gases such as HCl and SO_2; and units with multiple control devices that could reduce PM, Cd, Pb, particulate Hg, such as a venturi scrubber in combination with an impingement scrubber and a wet ESP or another particulate control device. See the memorandum "MACT Floor Analysis for the Sewage Sludge Incinerator Source Category," which is in the SSI docket for a list of municipalities that were sent an ICR and their controls.

In contrast to MWC units or CISWI units, SSI units receive a homogenous type of waste to burn. There are variations in the amount of each of the CAA section 129 pollutants present, but because all SSI units are required to meet the CWA SSI discharge and emission requirements (40 CFR part 503), the variations are not as significant as variations that would occur if different types of materials were combusted (*e.g.,* sewage sludge, coal, wood). Part 503 establishes daily average concentration limits for Pb, Cd, and other metals in sewage sludge that is disposed of by incineration. Part 503 also requires that SSI meet the National Emission Standards for Beryllium and Hg in subparts C and E, respectively, of 40 CFR part 61. In order to meet the 40 CFR part 503 standards, facilities are already incorporating management practices and measures to reduce waste and limit the concentration of pollutants in the sludge sent to SSI units, such as segregating contaminated and uncontaminated wastes and establishing discharge limits or pre-treatment standards for non-domestic users discharging wastewater to POTW. Thus, SSI units burn a relatively homogenous waste, and non-technology measures to reduce emissions are already being taken. As a result, the data used to develop the MACT emission limits reflect the control technologies used at each facility, and the other HAP emission reduction approaches, such as management practices each facility is following to comply with the CWA part 503 standards. For this reason, we believe that the sources identified for testing and the resulting emissions information received from the surveyed SSI units represent the best-performing SSI units.

From the 9 surveyed municipalities, EPA collected data from 16 units that were in operation (11 MH incinerators and 5 FB incinerators). The surveyed information was supplemented with test information for 9 MH SSI units collected from State environmental agencies public databases. In total, emissions information was collected from 5 FB incinerators and 20 MH incinerators from facilities responding to the ICR and additional test reports provided by State environmental agencies. However, not every test report contained information on all pollutants. Except for CDD/CDF and SO_2, test information for most of the 9 CAA section 129 pollutants was available from 5 FB incinerators. For CDD/CDF and SO_2, data from only 3 FB incinerators were available. Depending on the pollutant, the number of MH incinerators with emissions information ranges from 5 to 19. The MACT floor analysis was then conducted using all the emissions information for each pollutant in each subcategory (*i.e.,* all 5 FB incinerators for Cd and all 14 MH incinerators for Cd), as this information includes emissions data from the population of best-performing units.

Test results from each of these units are based on the results of at least 3 individual runs per test, meaning that one would expect MACT floor calculations based on a population of 21 FB runs (7 FB multiplied by 3 runs per FB) and on a population of 60 MH runs (20 MH FB multiplied by 3 runs per MH). While EPA does not have actual emissions test data for the population of units that represent the best-performing 12 percent, the statistical technique described below is the approach we used to establish the existing source MACT floor. The MACT floor calculations are based on all the actual data received, for example, a population of 15 MH runs from 5 MH incinerators for CDD/CDF. Because the emissions data are normally distributed, or can be transformed to be normally distributed (using the log-normal transformation of the data), EPA is able to employ statistical techniques to determine the minimum number of observations needed to accurately characterize the distribution of the best performing 12 percent of units in each subcategory. This technique is necessary to assure that the characteristics of the sampled data set mirror those of the best-performing 12 percent of units in the source category.

EPA used this statistical technique because of the lack of data from the full set of the best-performing 12 percent of sources. While Congress adopted identical language describing the MACT floor calculation in section 129(a)(2) as it did in section 112(d)(3), the latter section includes a provision stating that the MACT floor for existing sources cannot be less stringent than "the average emission limitation achieved by the best-performing 12 percent of the existing sources (for which the Administrator has emissions information)." Section 129, however, simply states that the existing source MACT floor cannot be less stringent than the average emission limitation achieved by the best-performing 12 percent of the existing sources in the category. Therefore, while we believe Congress intended for the MACT floor calculation under each section of the CAA to be the same, this difference in the text of the 2 sections requires us to establish the MACT floor for section 129 source categories based on the best-performing 12 percent of sources in the category. Because we do not have that data at this time, the statistical technique described below is the only manner in which we can establish the existing source MACT floor on that basis. We request that commenters provide additional emissions stack test data and supporting documentation, as that may enable us to establish a final MACT floor based on a more complete data set.

In order to assess whether or not the minimum number of samples collected adequately characterizes the population, a statistical equation was applied for each subcategory. If the number of observations collected equals or exceeds the required minimum number of observations calculated using the statistical equation, then the MACT floor calculations of the sampled data set are consistent with what the MACT floor calculations would have been had they been performed on the complete data set from the best-performing 12 percent of the population. The sample size calculation is discussed in more detail in the memorandum "MACT Floor Analysis for the Sewage Sludge Incinerator Source Category," which is

US EPA ARCHIVE DOCUMENT

HeinOnline -- 75 Fed. Reg. 63270 2010

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 398 of 492

in the SSI docket. The results of the calculation show that for the population of 7 FB incinerators, which comprises 12 percent of the source category, the minimum number of test runs that need to be collected is 10, and the actual number collected, for the pollutant with the least amount of test data, including late arriving data, is 12. Similarly, the calculation shows that for the population of 20 MH incinerators which comprise 12 percent of the source category, the minimum number of test runs that need to be collected is 14, and the actual number collected, for the pollutant with the least amount of test data, is 15. Based on EPA's assessment, the data set meets the minimum size needed to characterize the population of 12 percent of the best-performing units for all pollutants, when late-arriving data are included. EPA determined that the number of observations of data collected accurately represent the 12 percent of the best-performing sources in each subcategory. Data received too late to incorporate in the analysis for the proposed rule will be included in the analysis for the final rule along with any relevant data received during the comment period. However, EPA conducted a preliminary review of the late data received subsequent to the final analyses, *e.g.,* MACT floor ranking, impacts, etc., and determined that based on this preliminary review, the data would have minimal impact on the proposed standards. For more information on the outcome of this review, please refer to the "MACT Floor Analysis for the Sewage Sludge Incinerator Source Category," memorandum, which is in the SSI docket.

2. Variability Calculation

To conduct the existing source MACT floor analysis for each pollutant, individual SSI units in each subcategory for which we had emissions test data were ranked based on their average emission levels of the pollutant from lowest to highest. The MACT floor was calculated as the average of the test runs from the best-performing (*i.e.,* lowest emitting) 12 percent of sources. For the SSI source category, all the quality-assured emissions information from the ICR responses and additional test reports collected were used in the MACT floor calculation. That is, for each pollutant, the MACT floor emission level was calculated as the average emission limit for all the test runs from the quality assured emissions data collected.

The first step in the statistical analysis includes a determination of whether the data used for each MACT floor calculation were normally or log-normally distributed. If the data were normally distributed (*e.g.,* similar to a typical bell curve), then further variability analyses could be conducted on the data set. If the data were not normally distributed (for example, if the data were asymmetric or skewed to the right or left), then the type of distribution (*e.g.,* log-normal) was determined and a data transformation was performed (*e.g.,* taking the natural log of the data) to normalize the data prior to conducting the variability analysis. Two statistical measures, skewness and kurtosis, were examined to determine if the data were normally or log-normally distributed. For details on the statistical analysis, see the memorandum "MACT Floor Analysis for the Sewage Sludge Incinerator Source Category," which is in the SSI docket.

For the existing source variability analysis, all the emissions test runs reported for the best-performing 12 percent of units in each subcategory were identified. By including multiple emissions tests from units with a test average in the top 12 percent, EPA can evaluate intra-unit variability of emissions tests over time, considering variability in control device performance, unit operations, and fuels fired during the test. As discussed previously, the UPL was used for the SSI MACT floor variability analysis.

For the existing source analysis, the 99 percent UPL values were calculated for each pollutant and for each subcategory using the test run data for those units in the best-performing 12 percent. Since compliance with the MACT floor emission limit is based on the average of a 3-run test, Equation 1 shows the UPL is calculated as follows:

$$UPL = \bar{x} + t\,(0.99, n-1) \times \sqrt{s^2 \times \left(\frac{1}{n} + \frac{1}{m}\right)} \qquad \text{(Eq. 1)}$$

Where:

n = Number of test runs (i.e., sample size)

m = Number of test runs in the compliance average

s = Standard deviation of the emissions test data

x = Mean, i.e., average of the emissions test data

$t0.99, (n-1)$ = t-statistic for 99 percent significance and a sample size of n.

This calculation was performed using the following 2 Microsoft Excel spreadsheet functions:

Normal distribution: 99 percent UPL = AVERAGE (Test Runs in Top 12 percent) + [STDEV(Test Runs in Top 12 percent) × TINV(2 * 0.99, n − 1 degrees of freedom)*SQRT((1/n)+1/3))], for a one-tailed t-value (with 2 × probability), probability of 0.01, and sample size of n.

Lognormal distribution: 99 percent UPL = EXP{AVERAGE(Natural Log Values of Test Runs in Top 12 percent) + [STDEV(Natural Log Values of Test Runs in Top 12 percent) × TINV(2 * 0.99, n − 1 degrees of freedom) * SQRT((1/n)+1/3))]}, for a one-tailed t-value (with 2 × probability), probability of 0.01, and sample size of n.

The 99 percent UPL represents the value which one can expect the mean of future 3-run performance tests from the best-performing 12 percent of sources to fall below, with 99 percent confidence, based upon the results of the independent sample of observations from the same best-performing sources. In establishing the limits, the UPL values were rounded up to 2 significant figures. For example, a value of 1.42 would be rounded to 1.5 because a limit of 1.4 would be lower than the calculated MACT floor value.

The summary statistics and analyses are presented in the docket and further described in sections IV.C.4 and IV.C.5 of this preamble. The calculated UPL values for existing sources (which are based on emissions data from the sources representing the best-performing 12 percent of sources and evaluate variability) were selected as the proposed MACT floor emission limits for the 9 regulated pollutants in each subcategory.

To determine the MACT floor for new sources, we used an UPL calculation similar to that for existing sources, except the best-performing similar source's data were used to calculate the MACT floor emission limit for each pollutant instead of the average of the best-performing 12 percent of units. In summary, the approach ranks individual SSI units based on actual performance and establishes MACT floors based on the best-performing similar source for each pollutant and

HeinOnline -- 75 Fed. Reg. 63271 2010

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 399 of 492

subcategory, with an appropriate accounting of emissions variability. In other words, the UPL was determined for the data set of individual test runs for the single best-performing source for each regulated pollutant from each subcategory.

For the FB new source subcategory, we considered the best-performing FB incinerator to be the best-performing similar source. For the MH new source subcategory, we also considered the best-performing FB incinerator to be the best-performing similar source because these types of units are both operated for the same purpose (*e.g.* to incinerate sewage sludge and similar control technologies can be used on both). We chose not to treat the best-performing MH incinerator as the best-performing similar source for the MH new source subcategory because we are not aware of any new MH sources that have been constructed in the last 20 years. During that period, however, over 40 new FB incinerators have been installed, with at least 11 replacing MH incinerators. Information provided by the industry indicates that future units that will be constructed are likely to be FB incinerators. Information provided by the industry also indicates that new FB units have more efficient combustion characteristics resulting in lower emissions. Therefore, we believe it is appropriate to consider the best-performing FB incinerator as the best-performing similar source for the MH new source subcategory. We are aware that owners and operators with modified MH units may have concerns regarding meeting the new source limits. We request comment on this proposed approach. To assist commenters with their evaluation of the proposal, we have calculated what the MACT floor emission limits would be based on the best-performing MH incinerator, and the emission limits for FB and MH incinerators are shown in Table 3. These potential limits were developed by analyzing the MH test data using the same new source MACT floor methodology as discussed earlier in this section of this preamble. See the MACT floor memorandum in the docket for additional details.

TABLE 3—POTENTIAL EMISSION LIMITS FOR NEW MH UNITS BASED ON BEST-PERFORMING MH INCINERATOR

Pollutant	Units	Potential emission limit for new MH incinerators
Cd	mg/dscm @ 7% O_2	0.0011
CDD/CDF, TEQ	ng/dscm @ 7% O_2	0.0022
CDD/CDF, TMB	ng/dscm @ 7% O_2	0.024
CO	ppmvd @ 7% O_2	45
HCl	ppmvd @ 7% O_2	0.36
Hg[a]	mg/dscm @ 7% O_2	0.02
NO_X	ppmvd @ 7% O_2	150
Opacity	%	0
Pb	mg/dscm @ 7% O_2	0.0020
PM	mg/dscm @ 7% O_2	5.8
SO_2	ppmvd @ 7% O_2	6.9

[a] Calculation results in a limit of 0.069 which is greater than the existing source beyond the floor limit.

The MACT floor limits for opacity from combustion stacks were determined slightly differently from other pollutants. The opacity data available for FB and MH SSI units were obtained using EPA Method 9 at 40 CFR part 60, appendix A–4, for 3 FB incinerators (providing 10 observations or test runs) and 10 MH incinerators (providing 29 observations). Similar to the amount of data collected for other regulated pollutants, this constitutes less than 12 percent of the sources, but meets or exceeds the minimum sample size needed to characterize the population of the best-performing 12 percent of units. Under Method 9, the opacity of emissions from stationary sources is determined visually by a qualified observer. Opacity observations are recorded to the nearest 5 percent at 15-second intervals on an observational record sheet and the average opacity of the observation period is calculated. For FB incinerators, all of the available average opacity measurements were reported as 0 percent. Consequently, the MACT floor for opacity from existing FB incinerators and all new units is 0 percent opacity. For MH incinerators, 60 percent of the available average opacity measurements were greater than 0 percent and 40 percent were reported as 0 percent. A review of the opacity data for MH incinerators indicated that they are not normally distributed. However, because the MH opacity data contain zero values, the log-normal transformation of the data could not be calculated to normalize the data set. Consequently, the procedures used to assess the variability of the data were modified. For MH incinerators, the variability analysis for existing sources was conducted on the opacity data set without transforming the data using the log normal calculation. Additionally, because the opacity readings are in 5 percent increments, the calculated UPL was rounded up to the nearest multiple of 5. The analysis results in an opacity limit of 10 percent for existing sources. We request comment on the methodology used to set the opacity limit. We are also requesting additional opacity information from SSI units.

3. Incorporation of Non-Detect Data

Non-detect values comprise more than 50 percent of the emissions data for HCl from FB incinerators and CDD/CDF from both MH and FB incinerators. For these pollutants, EPA developed a methodology to account for the imprecision introduced by incorporating non-detect data into the MACT floor calculation.

At very low emission levels where emissions tests result in non-detect values, the inherent imprecision in the pollutant measurement method has a large influence on the reliability of the data underlying the MACT floor emission limit. Because of sample and emission matrix effects, laboratory techniques, sample size, and other factors, method detection levels normally vary from test to test for any specific test method and pollutant measurement. The confidence level that a value, measured at the detection level is greater than zero, is about 99 percent. The expected measurement imprecision for an emissions value occurring at or near the method detection level is about 40 to 50 percent. Pollutant measurement

HeinOnline -- 75 Fed. Reg. 63272 2010

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 400 of 492

imprecision decreases to a consistent level of 10 to 15 percent for values measured at a level about 3 times the method detection level.[14]

One approach that we believe can be applied to account for measurement variability in this situation starts with defining a method detection level that is representative of the data used in the data pool. The first step in this approach would be to identify the highest test-specific method detection level reported in a data set that is also equal to or less than the average emission calculated for the data set. This approach has the advantage of relying on the data collected to develop the MACT floor emission limit, while to some degree, minimizing the effect of a test(s) with an inordinately high method detection level (e.g., the sample volume was too small, the laboratory technique was insufficiently sensitive or the procedure for determining the detection level was other than that specified).

The second step is to determine the value equal to 3 times the representative method detection level and compare it to the calculated MACT floor emission limit. If 3 times the representative method detection level were less than the calculated MACT floor emission limit, we would conclude that measurement variability is adequately addressed, and we would not adjust the calculated MACT floor emission limit. If, on the other hand, the value equal to 3 times the representative method detection level were greater than the calculated MACT floor emission limit, we would conclude that the calculated MACT floor emission limit does not account entirely for measurement variability. We would, therefore, use the value equal to 3 times the method detection level in place of the calculated MACT floor emission limit to ensure that the MACT floor emission limit accounts for measurement variability and imprecision.

The approach discussed above was used to calculate the proposed MACT floor limit for HCl. The following additional procedures were followed for CDD/CDF, TMB, and TEQ basis limits. To calculate a TMB limit, all the 17 congeners of interest were identified and non-detect values that are associated with each were indicated. The mean of the non-detect values was calculated and multiplied by 17 (for the total number of congeners of interest). The mean value was then used as the detection limit of the run. Then, each data set was reviewed to identify the highest test-specific method detection level reported that was also equal to or less than the average emission level (*i.e.,* unadjusted for probability confidence level) calculated for the data set. The second step discussed above and also used for HCl was used to set the limit.

To calculate a limit on a TEQ basis, first, the mean of the non-detect values was calculated. Then the TEF for each congener was multiplied by the mean to determine the TEQ for each congener. Toxic Equivalencies for each congener were summed to calculate a TEQ sum value. The TEQ sum was then used as the detection limit for the test run. The second step discussed above and also used for HCl was used to set the limit.

4. EG MACT Floor

Once the sources that represent the best 12 percent of units were identified for each subcategory and pollutant, the individual test run data for these units were compiled and a statistical analysis was conducted to calculate the average and account for variability and, thereby, determine the MACT floor emission limit.

The summary results of the UPL analysis and the MACT floor emission limits for existing units are presented in Table 4 of this preamble for each subcategory and each pollutant.[15]

TABLE 4—SUMMARY OF MACT FLOOR EMISSION LIMITS FOR EXISTING SSI UNITS

Pollutant	Units	FB Incinerators			MH Incinerators		
		Avg of top 12%	99% of UPL	MACT floor emission limit [a]	Avg of top 12%	99% of UPL	MACT floor emission limit [a]
Cd	mg/dscm@7% O_2	0.00055	0.00189	0.0019	0.030	0.0947	0.095
CDD/CDF TEQ	ng/dscm@7% O_2	0.027	0.0559	0.056	0.047	0.314	0.32
CDD/CDF TMB	ng/dscm@7% O_2	0.32	0.602	0.61	0.69	4.95	5.0
CO	ppmvd@7% O_2	28	55.1	56	1,013	3,885	3,900
HCl	ppmvd@7% O_2	0.17	0.489	0.49	0.53	0.982	1.0
Hg	mg/dscm@7% O_2	0.0019	0.00325	0.0033	0.10	0.162	0.17
NO_X	ppmvd@7% O_2	30	62.4	63	130	207	210
Opacity	%	0	0	0	2.0	6.4	10
Pb	mg/dscm@7% O_2	0.0030	0.0098	0.0098	0.082	0.295	0.30
PM	mg/dscm@7% O_2	2.6	11.9	12	42.6	79.8	80
SO_2	ppmvd@7% O_2	3.3	21.5	22	9.4	25.7	26

[a] Limits were rounded up to 2 significant figures except that opacity limits were rounded up to the nearest multiple of 5 for reasons explained in section IV.C.2 of this preamble.

Information gathered indicates that all of the units have some level of air pollution control and management practice in place either as a result of CWA part 503, State and local requirements, or previous Federal standards to address air emissions. MACT floor emissions reductions were calculated assuming that units needing to meet the limits for Cd and Pb would install a FF, units needing to meet the limits for Hg and CDD/CDF would apply activated carbon injection, and units needing to meet the limits for HCl and SO_2 would apply a packed bed scrubber. We are requesting comment on whether there are space constraints at wastewater treatment facilities that would affect the feasibility and cost of installing air pollution control devices. The results of the analysis indicate that all existing FB and MH units would meet the MACT floor levels of control for NO_X, CO, and PM without applying any additional control. (However, PM would be reduced from applying controls to meet the Cd and Pb emissions limits.) Additionally, all existing MH units would also meet the MACT floor levels of control for CDD/

[14] American Society of Mechanical Engineers, *Reference Method Accuracy and Precision (ReMAP): Phase 1, Precision of Manual Stack Emission Measurements,* CRTD Vol. 60, February 2001.

[15] EPA interprets CAA section 129 as supporting the pollutant-by-pollutant approach (74 FR 51380, Oct. 6, 2009).

HeinOnline -- 75 Fed. Reg. 63273 2010

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 401 of 492

CDF without applying any additional control. These results for NO_X, CO, PM, and CDD/CDF are attributable to the relatively high 99 percent UPL values computed from the submitted data. The small sample sizes and the high degree of variability observed in the data for these pollutants resulted in large 99 percent UPL values.

Given the smaller than desired data sets for these pollutants, we computed the 95 percent UPL values to account for the influence of the limited data set. The results are presented in Table 5 of this preamble. We are requesting comment on whether it is appropriate to use these alternative UPLs for this source category due to the limited availability of data.

TABLE 5—SUMMARY OF MACT FLOOR EMISSION LIMITS FOR EXISTING SSI UNITS USING ALTERNATIVE PERCENT UPL [a]

Pollutant	Units	FB Incinerators	MH Incinerators
		95% Of UPL	95% Of UPL
Cd	mg/dscm@7% O_2	0.0011	0.048
CDD/CDF TEQ	ng/dscm@7% O_2	0.046	0.12
CDD/CDF TMB	ng/dscm@7% O_2	0.51	1.8
CO	ppmvd@7% O_2	47	2,200
HCl	ppmvd@7% O_2	[b] 0.49	0.84
Hg	mg/dscm@7% O_2	0.0018	0.14
NO_X	ppmvd@7% O_2	48	190
Opacity	%	0	10
Pb	mg/dscm@7% O_2	0.0052	0.14
PM	mg/dscm@7% O_2	6.1	69
SO_2	ppmvd@7% O_2	8.6	17

[a] Limits were rounded up to 2 significant figures except that opacity limits were rounded up to the nearest multiple of 5 for reasons explained in section IV.C.2 of this preamble.

[b] Value shown is the result of the non-detect analysis, which results in using the limit that is based on 3 times the highest detection limit that is less than the average of the data. The calculated UPL values without the non-detect analysis are 0.25, 0.23, and 0.22 for percent UPLs of 95 percent, 90 percent, and 85 percent, respectively.

5. NSPS MACT Floor

New source MACT floors are based on the best-performing single source for each regulated pollutant, with an appropriate accounting for emissions variability. In other words, the best-performing unit was identified by ranking the units from lowest to highest for each subcategory and pollutant and selecting the unit with the lowest 3-run test average emissions test data for each pollutant. To determine the MACT floor for new sources, an UPL calculation similar to that for existing sources was conducted, except the best-performing unit's data within a subcategory were used to calculate the MACT floor emission limit for each pollutant. The best-performing unit was identified as the lowest emitting source with at least 3 test runs. In summary, the approach ranks individual SSI units based on actual performance and establishes MACT floors based on the best-performing source for each pollutant and subcategory, with an appropriate accounting of emissions variability. In other words, the UPL was determined for the data set of individual test runs for the single best-performing source for each regulated pollutant from each subcategory. As discussed in IV.C.2, EPA is proposing 2 subcategories for new sources. However, we are proposing to require that all new sources meet the emission limits for the best-performing FB incinerator. Table 6 of this preamble presents the analysis summaries and the new source MACT floor limits.

TABLE 6—SUMMARY OF MACT FLOOR EMISSION LIMITS FOR ALL NEW SSI UNITS (FB AND MH)

Pollutant	Units	All new SSI units (fluidized bed and multiple hearth)		
		Avg of top 12%	99% of UPL	MACT floor limit [1]
Cd	mg/dscm@7% O_2	0.00017	0.000510	0.00051
CDD/CDF TEQ	ng/dscm@7% O_2	0.00094	0.00213	0.0022
CDD/CDF TMB	ng/dscm@7% O_2	0.0095	0.0226	0.024
CO	ppmvd@7% O_2	2.6	7.31	7.4
HCl	ppmvd@7% O_2	0.044	0.111	0.12
Hg	mg/dscm@7% O_2	0.00036	0.000992	0.0010
NO_X	ppmvd@7% O_2	14.9	25.3	26
Opacity	%	0	0	0
Pb	mg/dscm@7% O_2	0.00031	0.000527	0.00053
PM	mg/dscm@7% O_2	1.4	4.06	4.1
SO_2	ppmvd@7% O_2	0.62	1.99	2.0

[1] Limits were rounded up to 2 significant figures.

6. Assessment of $PM_{2.5}$ Data

EPA's collection of emissions information also included filterable $PM_{2.5}$ measured using OTM 27 and condensable PM measured using OTM 28. Other Test Method 27 and OTM 28 are equivalent to the proposed revisions of Methods 201A and 202. Emissions information for $PM_{2.5}$ and condensable PM was obtained from 5 FB incinerators and 6 MH incinerators. Other Test Method 27/OTM 28 combination testing can be used to determine primary $PM_{2.5}$, which includes filterable PM from OTM 27 and condensibles from OTM 28. A

HeinOnline -- 75 Fed. Reg. 63274 2010

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 402 of 492

variability analysis was conducted on the data to calculate a MACT floor level of control, and the results are provided in Table 7 of this preamble.

TABLE 7—VARIABILITY CALCULATION FOR $PM_{2.5}$

[Mg/Dscm@7%O_2]

Subcategory	Avg of top 12%	99% of UPL	Limit
Existing FB Incinerators	4.2	11.7	12
Existing MH Incinerators	17	57.6	58
All New Units	1.5	2.29	2.3
Potential New MH Incinerators (See Discussion In IV.C.2)	2.6	10.7	11

There are potential concerns with the emissions data and whether it is appropriate to set $PM_{2.5}$ standards for SSI units. Other Test Method 27 is not an appropriate test method for sizing particulate at 2.5 μm when there are entrained water droplets in the stack gas, which will bias the measurements. All SSI units use wet scrubbers to control emissions, and water droplet entrainment may be an issue at some portion of these sources, resulting in them not being able to measure $PM_{2.5}$ using OTM 27. A review of the temperature and moisture data collected during the $PM_{2.5}$ emissions tests indicates that water droplet entrainment is not an issue with the emissions data collected from the sources tested. Other test reports, at sources with stack gas moisture levels in excess of the vapor capacity, and thus with entrained water droplets, did not provide $PM_{2.5}$ information. Additional information on the emission characteristics would be necessary to make a conclusion about general stack gas parameters in the SSI source category.

Because of this concern, we decided not to include $PM_{2.5}$ standards in this proposal. We are requesting comment on whether the $PM_{2.5}$ limits in Table 6 of this preamble should be set for the promulgated rule, and whether the combination of OTM 27 and 28 are appropriate measurement techniques. We are also requesting additional $PM_{2.5}$ emissions stack test data and supporting documentation for both MH and FB incinerators.

D. Rationale for Beyond-the-Floor Alternatives

As discussed above, EPA may adopt emission limitations and requirements that are more stringent than the MACT floor (*i.e.,* beyond-the-floor). Unlike the MACT floor methodology, EPA must consider costs, nonair quality health and environmental impacts and energy requirements when considering beyond-the-floor standards.

1. Beyond-the-Floor-Analysis for Existing Sources

In order to identify beyond-the-floor options, we first identified control requirements for each pollutant that would be more stringent than required to meet the MACT floor level of control and determined whether they were technically feasible. If the more stringent controls were technically feasible, a cost and emission impacts analysis was conducted for applying them. The cost, emission reduction, and cost-effectiveness of the technically feasible controls were reviewed, and controls that were relatively cost-effective in reducing emissions were selected as possible beyond-the-floor control options.

The control technologies that would be needed to achieve the MACT floor levels (*i.e.,* FF and packed bed scrubbers) are generally the most effective controls available for reducing PM, Cd, Pb, HCl and SO_2. Therefore, no beyond-the-floor technologies were identified for these pollutants. We analyzed options of applying FF and packed bed scrubbers to units that did not have these controls already or did not need them to meet the MACT floor emissions limits. A preliminary cost and emission reduction analysis was performed for these options. The results indicate that the application of FF (to control Cd and Pb), or application of a packed bed scrubber (to control HCl and SO_2), as a beyond-the-floor option results in high costs for the emission reduction achieved, and is not cost-effective. Consequently, the FF and packed bed beyond-the-floor options were not further analyzed. This analysis is documented in the memorandum "Analysis of Beyond the Maximum Achievable Control Technology (MACT) Floor Controls for Existing SSI Units" found in the SSI docket. We identified and analyzed impacts of beyond-the-floor technologies for the other pollutants (CO, NO_X, Hg, and CDD/CDF). These analyses are summarized in the following paragraphs.

As discussed in section IV.C.4 of this preamble, our analysis indicates that all existing FB and MH units would meet the MACT floor levels of control for NO_X and CO without applying any additional control; therefore, no control technologies were costed for these pollutants at the MACT floor level. For the beyond-the-floor analysis, we analyzed applicable controls, as discussed below, to provide reductions of NO_X and CO from all SSI units.

For NO_X, we reviewed add-on control technologies that achieve NO_X reduction at other combustion sources, such as MWC units, CISWI units, and boilers. These include SCR, SNCR, and FGR. However, none of these technologies were determined to be appropriate for SSI units. To our knowledge, SSI units do not use SCR or SNCR. Additionally, we are not aware of any successful applications of SCR technology to waste combustion units. This may be due to the difficulties operating SCR where there is significant PM or sulfur loading in the gas stream. Application of SNCR also may not be technically feasible because the combustion mechanism of MH incinerators provides inadequate mixing of combustion gas and SNCR reagent. Additionally, SSI operating conditions (*e.g.,* low temperatures and residence times for MH incinerators and low uncontrolled NO_X emissions for FB incinerators) are not well suited for application of SNCR. Flue gas recirculation has been used on combustion devices to reduce NO_X emissions. Emissions information collected by EPA contains data from one MH incinerator with FGR. However, its emission levels are similar to units without FGR. Therefore, no conclusion could be made on FGR performance. Additionally, there are no FB incinerators that currently use any add-on NO_X control because, due to their design, FB incinerators achieve low NO_X emission levels without add-on controls.

With regard to Hg and CDD/CDF, the most effective control technology to reduce these emissions is activated

HeinOnline -- 75 Fed. Reg. 63275 2010

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 403 of 492

carbon injection. We estimate that this source category is currently the sixth highest Hg emitting source category in the United States, emitting about 3.1 TPY of Hg (or about 3 percent of the total Hg emissions from anthropogenic sources in the United States). This category emits about 0.0001 TPY of dioxin (or 0.0000081 tons of dioxin TEQ), which is about 1 percent of the total estimated dioxin emissions in the U.S.

Our analysis indicates that 53 SSI units would need to use activated carbon injection to meet the MACT floor level of control, so costs for activated carbon injection were included in the cost analysis for the MACT floor for such units. All of these units, except for two, are FB units. Control of the FB units at the MACT floor will result in estimated emissions reductions of about 0.06 tons of Hg and 0.0000065 tons dioxins TEQ. However, the other units (especially the MH units) would not need additional control to meet the "floor" level of control. Additional beyond-the-floor reductions for the MH units would be achieved by applying activated carbon injection. Data gathered by EPA indicate that activated carbon injection applied to combustion sources with particulate control can achieve 85–95 percent reduction of Hg, depending on the type of particulate control, with higher reductions achieved by units with FF and lower reductions achieved by units with electrostatic precipitators or venturi scrubbers. Based on these data, a beyond-the-floor reduction of 88 percent for Hg was used for carbon injection applied to existing MH unit controls, resulting in an emission level of 0.02 mg/dscm corrected to 7 percent oxygen. Previous EPA studies also show that CDD/CDF can be reduced by as much as 98 percent using activated carbon injection.

For CO, the MACT floor emission level for existing MH sources is 3,900 ppmvd corrected to 7 percent oxygen. An add-on combustion device, such as an afterburner, was analyzed as a more stringent control device that could be applied. Some units may use a RTO to comply with the CWA "503 Rule" (40 CFR part 503). We request comment on the use of an afterburner or RTO as a means to control CO from MH SSI units. Carbon monoxide emissions data collected show that MH incinerators using an add-on afterburner or RTO can achieve CO emission levels less than 100 ppmv. The CWA part 503 Rule limits SSI to 100 ppmv THC as propane, dry basis, corrected to 7 percent oxygen, averaged for 30 days. The CWA part 503 Rule allows substitution of 100 ppmv CO dry basis, corrected to 7 percent oxygen for the THC originally required. The 100 ppm CO level was selected because this level was determined to be a level that would be indicative of THC concentrations below 100 ppmv. This allows the use of a lower cost, easier to maintain CO monitor in place of the difficult to keep on-line THC monitor. Consistent with the CWA part 503 regulations for disposal of sewage sludge, for the beyond-the-floor analysis, a value of 100 ppmv was used as the emission level that a MH incinerator with an afterburner could achieve. Although we do not have data to quantify the impacts, the afterburner is also expected to reduce emissions of organic compounds, such as 7–PAH. We also evaluated whether there were any beyond-the-floor options for CO for existing FB incinerators. The proposed SSI MACT floor CO level for existing FB incinerators (56 ppmv) is well below the 100 ppmv emission level of the CWA part 503 Rule. We determined that application of an afterburner to FB units would not achieve appreciable CO reduction from the proposed limit for the cost incurred. This analysis is documented in the memorandum "Analysis of Beyond the Maximum Achievable Control Technology (MACT) Floor Controls for Existing SSI Units." Therefore, no beyond-the-floor CO limit was analyzed for the FB subcategory.

Table 8 of this preamble summarizes the costs of the MACT floor emission level (referred to as option 1), and 2 beyond-the-floor options. Option 2 is the same as option 1 plus application of activated carbon injection with existing particulate control to reduce Hg emissions. Option 3 is the same as option 2 plus applying an afterburner to MH units to reduce CO emissions.

TABLE 8—COSTS EXPECTED FOR EXISTING SSI UNITS TO COMPLY WITH MACT CONTROL OPTIONS (2008$)

Option	Total capital costs ($)	Total annualized costs ($/Yr) [a]
1—MACT Floor	220,000,000	73,000,000
2—Option 1 + Activated carbon injection	225,000,000	105,000,000
3—Option 2 + CO Afterburner	370,000,000	148,000,000

[a] Calculated using a 7 percent discount factor.

Table 9 of this preamble summarizes the emission reductions of each pollutant for the MACT control options.

TABLE 9—SUMMARY OF EMISSION REDUCTIONS FOR EXISTING UNITS TO COMPLY WITH THE MACT CONTROL OPTIONS SOURCES

Pollutant	Emission reductions for each MACT option (TPY)		
	Option 1	Option 2	Option 3
Cd	1.41	1.41	1.41
CDD/CDF TEQ	0.0000065	0.0000078	0.0000078
CDD/CDF TMB	0.000079	0.000099	0.000099
CO	0	0	25,691
HCl	93	93	93
Hg	0.09	2.71	2.71
NO_X	4.3	4.3	4.3
Pb	2.63	2.63	2.63

HeinOnline -- 75 Fed. Reg. 63276 2010

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 404 of 492

TABLE 9—SUMMARY OF EMISSION REDUCTIONS FOR EXISTING UNITS TO COMPLY WITH THE MACT CONTROL OPTIONS SOURCES—Continued

Pollutant	Emission reductions for each MACT option (TPY)		
	Option 1	Option 2	Option 3
PM	318	318	318
SO_2	2,192	2,192	2,192

The results provided in Tables 8 and 9 of this preamble were calculated using data gathered for each source, as well as default emissions, sludge capacity, and vent gas flow rate information for sources where data were unavailable. We estimate that applying activated carbon injection to all MH units to control Hg and CDD/CDF would result in total annualized costs of $32 million dollars (using a discount rate of 7 percent) and would achieve Hg reductions of 2.62 TPY and CDD/CDF reductions of 0.000020 TPY. The incremental cost-effectiveness of adding activated carbon injection to all MH units is estimated to be $12 million per ton of pollutants (Hg and CDD/CDF) removed (or $6,000 per pound). More than 99.9 percent of these estimated reductions are for Hg, thus these cost estimates mainly reflect the costs of Hg removal (i.e., about $6,000 per pound of Hg removed). However, it is important to note that activated carbon injection cannot be applied alone. It requires particulate control devices to remove the carbon that is injected to adsorb the Hg. Based on our available data, all of these units have some type of PM control device in place so they would not need to install new PM control equipment. We believe this beyond-the-floor option is cost-effective for Hg, which is a persistent bio-accumulative toxic (PBT) pollutant. Thus, we are proposing this beyond-the-floor limit for Hg of 0.02 mg/dscm corrected to 7 percent oxygen. Because more than 99.9 percent of the emissions reduction is associated with Hg, a specific beyond-the-floor option of controlling CDD/CDF emissions using activated carbon injection was not further considered. However, co-control of CDD/CDF would occur from the option of applying activated carbon injection to meet the beyond-the-floor emission limit for Hg.

Information collected by EPA shows that several FB units, but no MH units, currently use activated carbon injection. We believe activated carbon injection is applicable to both types of SSI combustors and do not know of any technical reason that activated carbon injection could not be applied to reduce Hg emissions at MH units. We are requesting comment and additional information on the feasibility of using this technology on MH units.

Thus, given the factors discussed above, we are proposing limits for Hg based on the beyond-the-floor option described above. However, we are requesting comment on this approach and the beyond-the-floor limits for Hg at MH units and request information on other factors and any data available that we should consider in our final rulemaking.

We also considered whether we should set beyond-the-floor emission limits for CO. The emissions reductions and cost associated with this are referred to as option 3 in Tables 8 and 9 of this preamble. We estimate that to apply MACT control option 3, which would require either the use of an afterburner or thermal oxidizer, could require as much as 1,700 million cubic feet of natural gas a year to be burned, resulting in NO_X and CO emissions of 84 and 70 TPY, respectively. Therefore, given these factors, we are not recommending going beyond-the-floor with option 3. We are requesting comment on whether to require MH units to meet the 100 ppmv CO limit, considering the potential emissions of NO_X and the cost impacts on municipalities of applying this option.

The results of the beyond-the-floor analysis are documented in the memorandum "Analysis of Beyond the Maximum Achievable Control Technology (MACT) Floor Controls for Existing SSI Units" found in the SSI docket (EPA–HQ–OAR–2009–0559). Table 1 in this preamble summarizes the proposed emissions limits for existing SSI units.

2. Beyond-the-Floor Analysis for New Sources

We did not identify any technologies or methods to achieve emission limits more stringent than the MACT floor limits for new units based on the lowest emitting FB incinerators. The control technologies necessary to achieve the MACT floor levels are generally the most effective controls available: FF for PM, Cd and Pb control; packed bed scrubbers for SO_2 and HCl control; afterburners for CO control; and activated carbon injection for CDD/CDF and Hg control. In addition, incremental additions of activated carbon have not been proven to achieve further reductions above the projected flue gas concentration estimated to achieve the limits for new sources. Data gathered do not indicate that any FB incinerators operate NO_X controls, such as SNCR, SCR, or FGR because the NO_X emissions are already low. In light of the technical feasibility, costs, energy, and nonair quality health and environmental impacts discussed in this section, we have determined it is not reasonable to establish beyond-the-floor limits for existing and new SSI units. Table 2 in this preamble summarizes the proposed emissions limits for new SSI units.

E. Rationale for Performance Testing and Monitoring Requirements

We are proposing that all new and existing SSI units meet the following requirements:

- Initial and annual emissions performance tests (or continuous emissions monitoring as an alternative).
- Annual inspections of scrubbers, FF, and other air pollution control devices that may be used to meet the emission limits.
- Annual visual emissions test of ash handling procedures.
- Control device parameter monitoring for wet scrubbers, FF, ESP, activated carbon injection, and afterburners, and other approved control devices.
- Monitoring of bypass stack use if installed at an affected unit.
- Periodic performance evaluations of continuous monitoring systems.

These proposed requirements were selected to provide additional assurance that sources continue to operate at the levels established during their initial performance test. The visual emissions test of ash handling procedures and annual control device inspections have been adopted for HMIWI, another CAA section 129 source category. Hospital, Medical, and Infectious Waste Incineration standards (74 FR 51367) contain these requirements to ensure that the ash which may contain metals, is not emitted to the atmosphere through fugitive emissions and that control devices are maintained properly.

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The large and small MWC standards also have similar fugitive ash monitoring requirements. In addition, the CISWI rule requires a Method 22 (of appendix A–7) visible emissions test of the ash handling operations to be conducted during the annual compliance test for all subcategories except waste-burning kilns, which do not have ash handling systems. We propose to require the fugitive ash monitoring provisions that are contained in the HMIWI, CISWI, and MWC rules. The HMIWI, CISWI, and MWC units are incineration devices combusting waste and have ash handling similar to SSI units. Consequently, we believe that the requirements for fugitive ash handling in the HMIWI and MWC standards can be applied to SSI units. We request comment on whether the ash handling requirements for MWC and HMIWI are appropriate for SSI, and if not, what requirements should be imposed.

The proposed rules would allow sources to use the results of emissions tests conducted within the previous 2 years to demonstrate initial compliance with the proposed emission limits for all the CAA section 129 pollutants as long as the sources certify that the previous test results are representative of current operations. Such tests must have been conducted using the test methods specified in the SSI rules and must be the most recent tests performed on the unit. Those sources, whose previous emissions tests do not demonstrate compliance with 1 or more of the revised emission limits, would be required to conduct another emissions test for those pollutants. This allowance to use previous tests would minimize the burden to affected sources. Information collected by EPA shows tests have been conducted on SSI for Title V, State testing requirements, and OW 503 rule requirements for many of the CAA section 129 pollutants. We seek comment on the appropriateness of the use of previously-conducted performance tests.

The proposed rule also would allow for reduced testing of PM, Cd, Pb, Hg, SO_2, HCl, NO_X and CO (for existing sources only). We are proposing to allow facilities with test data for listed pollutants that show emissions are less than 75 percent of the applicable emission limits to be able to qualify for testing for these pollutants once every 3 years. The reduced testing allowance and compliance margin provides flexibility and incentive to sources that operate well within the emission standard, and timelier follow-through on assuring that sources that are marginally in compliance will remain in compliance.

The proposed rule would allow for the following optional CEMS use: CO CEMS for existing sources; and NO_X CEMS, SO_2 CEMS, PM CEMS, HCl CEMS, multi-metals CEMS, Hg CEMS, CDD/CDF CEMS, ISTMMS and ISTDMS for existing and new sources and COMS. Some existing SSI units may have CO CEMS, NO_X CEMS, or SO_2 CEMS already to meet other regulatory or permit requirements, and we propose to allow them to continue to use these monitors to demonstrate continuous compliance with the SSI standards. The optional use of HCl CEMS, multi-metals CEMS, CDD/CDF CEMS, ISTMMS, and ISTDMS would be available on the date a final PS for these monitoring systems is published in the **Federal Register**. The proposed monitoring provisions are discussed in more detail below.

Monitoring Provisions for All Control Devices. The proposed rules would require monitoring the dry sludge feed rate, combustion chamber temperature (or afterburner temperature), and sludge moisture content to ensure that the incinerator operation parameters measured during the compliance test are continually maintained.

Monitoring Provisions for Wet Scrubbers. The proposed rules would require monitoring the scrubber liquor flow rate and pH, and the minimum pressure drop across each scrubber (or amperage to each scrubber), to ensure that the scrubber operation parameters measured during the compliance test are continually maintained.

Monitoring Provisions for Activated Carbon Injection (Hg sorbent injection). The proposed rules would require monitoring of activated carbon (*i.e.,* Hg sorbent) injection rate and carrier gas flow rate (or carrier gas pressure drop) to ensure that the minimum sorbent injection rate, measured during the compliance test, is continually maintained.

Monitoring Provisions for FF. The proposed rules would require bag leak detection system monitoring to ensure that the FF is operating properly and that leaks in the filter media are quickly identified and corrected on a continuous basis.

Monitoring Provisions for Electrostatic Precipitators. The proposed rules would require monitoring of the secondary voltage and secondary amperage of the collection plates, calculating the secondary power input to the collection plates (voltage multiplied by amperage) per ESP section, and effluent water flow rate at the outlet of the ESP (for wet ESP) to ensure that the ESP operating parameters measured during the compliance test are maintained on a continuous basis.

Monitoring Provisions for Afterburners. The proposed rules would require monitoring of the temperature of afterburners.*CO CEMS.* The proposed rules would require the use of CO CEMS on new SSI units. The proposed rules would allow the use of CO CEMS on existing sources. Owners and operators that use CO CEMS would be able to discontinue their annual CO compliance test. The continuous monitoring of CO emissions is an effective way of ensuring that the combustion unit is operating properly. The proposed rules incorporate the use of PS–4B Specifications and Test Procedures for Carbon Monoxide and Oxygen Continuous Monitoring Systems in Stationary Sources) of appendix B of 40 CFR part 60.

The proposed CO emission limits are based on data from annual stack tests and compliance would be demonstrated by stack tests. The change to use continuously-operated CO CEMS for measurement and enforcement of the stack test-based emission limits must be carefully considered in relation to an appropriate averaging period for data reduction. In past EPA rulemakings for incineration units, EPA has selected averaging times between 4 hours and 24 hours based on statistical analysis of long-term CEMS data for a particular subcategory. Because CO CEMS data available for SSI to perform such an analysis are insufficient to determine an emission level that would correspond to a shorter averaging period, EPA is proposing the use of a 24-hour block average as appropriate to address potential changes in CO emissions. The 24-hour block average would be calculated using Equation 19–19 in section 12.4.1 of EPA Method 19 of appendix A–7 of 40 CFR part 60. Existing facilities electing to use CO CEMS as an optional method would be required to notify EPA 1 month before starting use of CO CEMS and 1 month before stopping use of the CO CEMS. In addition, EPA specifically requests comment on whether continuous monitoring of CO emissions should be required for all existing SSI.

PM CEMS. The proposed rules would allow the use of PM CEMS as an alternative testing and monitoring method. Owners or operators who choose to rely on PM CEMS would be able to discontinue their annual PM compliance test. In addition, because units that demonstrate compliance with the PM emission limits with a PM CEMS would also be meeting the opacity standard, compliance demonstration with PM CEMS would be

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US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 406 of 492

considered a substitute for opacity testing or opacity monitoring. Owners and operators who use PM CEMS also would be able to discontinue their monitoring of ESP and scrubbers used to comply with the PM emission limit for the following operating parameters: Wet scrubber pressure drop, scrubber liquor flow rate, scrubber liquor pH, secondary voltage of ESP collection plates, secondary amperage of ESP collection plates, effluent water flow rate at the outlet of the ESP, and opacity monitoring or testing to demonstrate continuous compliance with the opacity limits. These operating parameters may still need to be monitored to demonstrate compliance for other pollutants (*e.g.,* HCl). These parameter monitoring requirements were designed to ensure the scrubber continues to operate in a manner that reduces PM emissions and would not be necessary if PM is directly measured on a continuous basis. The proposed amendments incorporate the use of PS–11 (Specifications and Test Procedures for Particulate Matter Continuous Emissions Monitoring Systems at Stationary Sources) of appendix B of 40 CFR part 60 for PM CEMS and PS–11 QA Procedure 2 to ensure that PM CEMS are installed and operated properly and produce good quality monitoring data.

The proposed PM emission limits are based on data from (normally distributed or transferred to be normally distributed) annual stack tests and compliance would generally be demonstrated by stack tests. The use of PM CEMS for measurement and enforcement of the same stack test-based emission limits must be carefully considered in relation to an appropriate averaging period for data reduction. Because PM CEMS data are unavailable for SSI, EPA is proposing that the use of a 24-hour block average is appropriate to address potential changes in PM emissions that cannot be accounted for with short term stack test data. The 24-hour block average would be calculated using Equation 19–19 in section 12.4.1 of EPA Method 19 of appendix A–7 of 40 CFR part 60. An owner or operator of a SSI unit who wishes to use PM CEMS would be required to notify EPA 1 month before starting use of PM CEMS and 1 month before stopping use of the PM CEMS.

Other CEMS and Monitoring Systems. EPA also is proposing the optional use of NO_X CEMS, SO_2 CEMS, HCl CEMS, multi-metals CEMS, Hg CEMS, CDD/CDF CEMS, ISTMMS, and ISTDMS as alternatives to the existing monitoring methods for demonstrating compliance with the NO_X, SO_2, HCl, Pb, Cd and Hg, and CDD/CDF emission limits. Because CEMS data for SSI are unavailable for all subcategories for NO_X, SO_2, HCl and metals, EPA concluded that the use of a 24-hour block average was appropriate to address potential changes in emissions of NO_X, SO_2, HCl and metals that cannot be accounted for with short term stack test data. EPA has concluded that the use of 24-hour block averages would be appropriate to address emissions variability, and EPA has included the use of 24-hour block averages in the proposed rule. The 24-hour block averages would be calculated using Equation 19–19 in section 12.4.1 of EPA Method 19 of appendix A of 40 CFR part 60. The proposed amendments incorporate the use of PS–2 of appendix B of 40 CFR part 60 for NO_X and SO_2 CEMS. Although final PS are not yet available for HCl CEMS and multi-metals CEMS, EPA is considering development of PS. The proposed rule specifies that these options would be available to a facility on the date a final PS is published in the **Federal Register**.

The use of HCl CEMS would allow the discontinuation of monitoring of the following operating parameters associated with scrubbers used to comply with the HCl emission limits: scrubber liquor flow rate, scrubber liquor pH, pressure drop across the scrubber (or amperage to the scrubber), and the annual testing requirements for HCl. However, some of these monitoring parameters may still be necessary to demonstrate compliance with other pollutant emission limits. These parameter monitoring requirements were designed to ensure the scrubber continues to operate in a manner that reduces HCl emissions and would not be necessary if HCl emissions are directly measured on a continuous basis. EPA has proposed PS–13 (Specifications and Test Procedures for Hydrochloric Acid Continuous Monitoring Systems in Stationary Sources) of appendix B of 40 CFR part 60 and expects that PS–13 can serve as the basis for HCl CEMS use at SSI. The procedures used in proposed PS–13 for the initial accuracy determination use the relative accuracy test, a comparison against a reference method. EPA is taking comment on an alternate initial accuracy determination procedure, similar to the one in section 11 of PS–15 (Performance Specification for Extractive FTIR Continuous Emissions Monitor Systems in Stationary Sources) of appendix B of 40 CFR part 60 using the dynamic or analyte spiking procedure.

EPA believes multi-metals CEMS can be used in many applications, including SSI. EPA has monitored side-by-side evaluations of multi-metals CEMS with EPA Method 29 of appendix A–8 of 40 CFR part 60 at industrial waste incinerators and found good correlation. EPA also approved the use of multi-metals CEMS as an alternative monitoring method at hazardous waste combustors. EPA believes that proposed PS–10 (Specifications and Test Procedures for Multi-metals Continuous Monitoring Systems in Stationary Sources) of appendix B of 40 CFR part 60 or other EPA PS to allow the use of multi-metals CEMS at SSI is an appropriate alternative. We request comment on the appropriateness of using multi-metals CEMS as a substitute for Cd and Pb performance testing. The procedures used in proposed PS–10 for the initial accuracy determination use the relative accuracy test, a comparison against a reference method. EPA is taking comment on an alternate initial accuracy determination procedure, similar to the one in section 11 of PS–15 using the dynamic or analyte spiking procedure.

EPA proposes the optional use of Hg CEMS (Performance Specification 12A—Specifications and Test Procedures for Total Vapor Phase Mercury Continuous Emissions Monitoring Systems in Stationary Sources) or ISTMMS (Performance Specification 12B—Specifications and Test Procedures for Total Vapor Phase Mercury Continuous Emissions Monitoring Systems from Stationary Sources Using a Sorbent Trap Monitoring System or Appendix K of part 75).[16] An owner or operator of a SSI unit who wishes to use any CEMS or CASS would be required to notify EPA 1 month before starting use of the CEMS or CASS and 1 month before stopping use of the CEMS or CASS. The source would also have to perform the annual performance test within 60 days of ceasing to use the CEMS or CASS for compliance with the standard. Mercury sorbent flow rate and carrier gas flow rate (or carrier gas pressure drop) monitoring could be eliminated in favor of a multi-metals CEMS or Hg CEMS; however CDD/CDF sorbent flow rate and carrier gas monitoring would still be required as an indicator of CDD/CDF

[16] EPA originally added PS–12A and PS–12B to Part 75 as part of the Clean Air Mercury Rule (CAMR). The United States Court of Appeals for the District of Columbia Circuit vacated CAMR on grounds unrelated to the PS. *New Jersey* v. *EPA;* 517 F.3d 574 (DC Cir. 2008). The Court's decision did not, in any way, address the appropriateness of the procedures set forth in Appendix K. In 2009, as part of the Portland Cement MACT, EPA proposed amending part 75 to add PS–12A and PS–12B. EPA currently intends to finalize those specifications at the same time it takes final action on the Portland cement MACT rule.

HeinOnline -- 75 Fed. Reg. 63279 2010

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 407 of 492

control if ISTDMS or CDD/CDF CEMS are not used.

The ISTMMS would entail use of a CASS with analysis of the samples at set intervals using any suitable determinative technique that can meet appropriate criteria. The option to use a CASS would take effect on the date a final PS is published in the **Federal Register**. As with Hg and multi-metal CEMS, use of integrated sorbent trap monitoring would eliminate the requirement to monitor Hg sorbent injection rate but would not eliminate the requirement to monitor CDD/CDF sorbent injection rate because it also is an indicator of CDD/CDF control.

The ISTDMS would entail use of a CASS and analysis of the sample according to EPA Reference Method 23 of appendix A–7 of 40 CFR part 60. The option to use a CASS would take effect on the date a final PS is published in the **Federal Register**. Dioxin/furan sorbent injection rate and carrier gas flow rate (or carrier gas pressure drop) monitoring and CDD/CDF annual testing could be eliminated in favor of ISTDMS, but Hg sorbent injection rate monitoring would not be eliminated because it also is an indicator of Hg control.

If integrated sorbent trap monitoring of CDD/CDF as well as multi-metals CEMS, Hg CEMS, or ISTMMS are used, both Hg sorbent injection rate monitoring and CDD/CDF sorbent injection rate monitoring could be eliminated. These parameter monitoring requirements were designed to ensure that control devices continue to be operated in a manner to reduce CDD/CDF, metals and Hg emissions, and corresponding monitoring is not needed if all of these pollutants are directly measured on an ongoing basis. EPA requests comment on other parameter monitoring requirements that could be eliminated upon use of any or all of the optional CEMS and CASS discussed above. Table 10 of this preamble presents a summary of the SSI operating parameters, the pollutants influenced by each parameter and alternative monitoring options for each parameter.

TABLE 10—SUMMARY OF SSI OPERATING PARAMETERS AND CONTROL DEVICE INSPECTIONS, POLLUTANTS INFLUENCED BY EACH PARAMETER AND ALTERNATIVE MONITORING OPTIONS FOR EACH PARAMETER

Operating parameter (control device type associated with monitoring requirement)	Pollutants influenced by operating parameter/control device	Alternative monitoring options
Sludge feed rate (All)	All	None.
Sludge moisture level (All)	All	None.
Temperature of combustion chamber (or afterburner combustion chamber) (All).	All	None.
CDD/CDF sorbent flow rate (Activated carbon injection) Carrier gas flow rate or carrier gas pressure drop (Activated carbon injection using CDD/CDF sorbent).	CDD/CDF	ISTDMS or CDD/CDF CEMS.
Hg sorbent flow rate (Activated carbon injection) Carrier gas flow rate or carrier gas pressure drop (Activated carbon injection using Hg sorbent).	Hg	ISTMMS, Hg CEMS, or multi-metals CEMS.
Scrubber pressure drop from each scrubber (Wet scrubber)	PM, Cd, Pb	PM CEMS, Pb CEMS, or Cd CEMS.
Scrubber liquor flow rate from each scrubber (Wet scrubber)	PM, Cd, Pb	PM CEMS, multi-metals CEMS, Cd CEMS, or Pb CEMS.
Scrubber liquor flow rate from each scrubber (Wet scrubber)	HCl, SO_2	HCl CEMS or SO_2 CEMS.
Scrubber liquor pH from each scrubber (Wet scrubber) Secondary voltage and secondary amperage of collection plates (All ESP). Effluent flow rate (Wet ESP).	HCl, SO_2 PM, Cd, Pb, Hg	HCl CEMS or SO_2 CEMS. PM CEMS, Pb CEMS, or Cd CEMS.
Temperature of afterburner	CO	None.
Bag leak detection monitoring system alarm time (FF)	PM, Cd, Pb, Hg	None.
Air pollution control device inspections	All	None.
Time of visible emissions from ash handling	PM	None.
Opacity from combustion stacks	PM	PM CEMS or COMS (only if wet scrubber is not used).

Table 11 of this preamble presents a summary of the SSI test methods and approved alternative compliance methods.

HeinOnline -- 75 Fed. Reg. 63280 2010

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 408 of 492

US EPA ARCHIVE DOCUMENT

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 60

[EPA–HQ–OAR–2009–0559; FRL–9272–9]

RIN 2060–AP90

Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Sewage Sludge Incineration Units

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action promulgates EPA's new source performance standards and emission guidelines for sewage sludge incineration units located at wastewater treatment facilities designed to treat domestic sewage sludge. This final rule sets limits for nine pollutants under section 129 of the Clean Air Act: Cadmium, carbon monoxide, hydrogen chloride, lead, mercury, nitrogen oxides, particulate matter, polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans, and sulfur dioxide.

DATES: The final rule is effective on May 20, 2011. The incorporation by reference of certain publications listed in the rule is approved by the Director of the Federal Register as of May 20, 2011.

ADDRESSES: EPA established a single docket under Docket ID No. EPA–HQ–OAR–2009–0559 for this action. This docket includes previous actions including the standards proposed on October 14, 2010 (75 FR 63260) and a supplemental notice issued on November 5, 2010 (75 FR 68296). All documents in the docket are listed on the *http://www.regulations.gov* Web site. Although listed in the index, some information is not publicly available, *e.g.,* confidential business information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through *http://www.regulations.gov* or in hard copy at EPA's Docket Center, Public Reading Room, EPA West Building, Room 3334, 1301 Constitution Avenue, NW., Washington, DC 20004. This Docket Facility is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the EPA Docket Center is (202) 566–1742.

FOR FURTHER INFORMATION CONTACT: Ms. Amy Hambrick, Natural Resource and Commerce Group, Sector Policies and Programs Division (E143–03), Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541–0964; fax number: (919) 541–3470; e-mail address: *hambrick.amy@epa.gov.*

SUPPLEMENTARY INFORMATION:

Acronyms and Abbreviations. The following acronyms and abbreviations are used in this document.

7-PAH 7-Polycyclic Aromatic Hydrocarbons
ANSI American National Standards Institute
As Arsenic
ASME American Society of Mechanical Engineers
ASTM American Society of Testing and Materials
CAA Clean Air Act
CASS Continuous Automated Sampling System
CBI Confidential Business Information
Cd Cadmium
CDX Central Data Exchange
CEMS Continuous Emissions Monitoring Systems
COMS Continuous Opacity Monitoring System
The Court U.S. Court of Appeals for the District of Columbia Circuit
CPMS Continuous Parametric Monitoring System
CFR Code of Federal Regulations
CISWI Commercial and Industrial Solid Waste Incineration
CO Carbon Monoxide
Cr Chromium
CWA Clean Water Act
EG Emission Guidelines
EJ Environmental Justice
ERT Electronic Reporting Tool
ESP Electrostatic Precipitators
FF Fabric Filter
FB Fluidized Bed
FGR Flue Gas Recirculation
HAP Hazardous Air Pollutants
HCl Hydrogen Chloride
Hg Mercury
HMIWI Hospital, Medical and Infectious Waste Incineration
ICR Information Collection Request
ISTDMS Integrated Sorbent Trap Dioxin Monitoring System
ISTMMS Integrated Sorbent Trap Mercury Monitoring System
LML Lowest Measured Level
MACT Maximum Achievable Control Technology
Mg/dscm Milligrams per Dry Standard Cubic Meter
MH Multiple Hearth
Mn Manganese
MWC Municipal Waste Combustion
NAAQS National Ambient Air Quality Standards
NAICS North American Industrial Classification System
Ng/dscm Nanograms per Dry Standard Cubic Meter
Ni Nickel
NO_X Nitrogen Oxides
NPRM Notice of Proposed Rulemaking
NSPS New Source Performance Standards
NTAA National Tribal Air Association
NTTAA National Technology Transfer and Advancement Act of 1995
OAQPS Office of Air Quality Planning and Standards
O&M Operation and Maintenance
OMB Office of Management and Budget
OP Office of Policy
OSWI Other Solid Waste Incineration
OTM Other Test Method
OW Office of Water
Pb Lead
PCB Polychlorinated Biphenyls
PCDD/PCDF Polychlorinated Dibenzo-P-Dioxins and Polychlorinated Dibenzofurans
PM Particulate Matter
POM Polycyclic Organic Matter
POTW Publicly Owned Treatment Works
PPM Parts per Million
PPMV Parts per Million by Volume
PPMVD Parts per Million of Dry Volume
PRA Paperwork Reduction Act
PS Performance Specifications
RCRA Resource Conservation and Recovery Act
RFA Regulatory Flexibility Act
RIA Regulatory Impact Analysis
RTO Regenerative Thermal Oxidizer
SBA Small Business Administration
SCR Selective Catalytic Reduction
SNCR Selective Non-Catalytic Reduction
SO_2 Sulfur Dioxide
SSI Sewage Sludge Incineration
SSM Startup, Shutdown, and Malfunction
TEF Toxic Equivalency Factor
TEQ Toxic Equivalency
THC Total Hydrocarbons
TMB Total Mass Basis
TPD Tons per Day
TPY Tons per Year
TTN Technology Transfer Network
UL Upper Limit
UMRA Unfunded Mandates Reform Act of 1995
UPL Upper Prediction Limit
VCS Voluntary Consensus Standards
WWW Worldwide Web

Organization of This Document. The following outline is provided to aid in locating information in this preamble.

I. General Information
A. Does the action apply to me?
B. Where can I get a copy of this document?
C. Judicial Review
II. Background
A. What is the statutory background for this final rule?
B. What are the primary sources of emissions and what are the emissions?
C. What is the relationship of the final standards to other standards for the use or disposal of sewage sludge and associated air emissions?
III. Summary of the Final Standards
A. What units are affected by the final standards?
B. What are the emission limits in the emission guidelines for existing sources?
C. What are the emission limits in the new source performance standards for new sources?

HeinOnline -- 76 Fed. Reg. 15372 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 409 of 492

D. What are the testing and monitoring requirements?
E. What are the other requirements for new and existing SSI units?
F. What are the recordkeeping and reporting requirements?
G. What are the SSM provisions?
H. What are the Title V permit requirements?
I. What are the applicability dates of the standards?
J. What are the requirements for submission of emissions test results to EPA?
IV. Summary of Significant Changes Following Proposal
A. Applicability
B. Subcategories
C. MACT Floor UPL Calculation and EG and NSPS Emission Limits
D. Baseline Emissions, Costs, and Impacts Estimation
E. Compliance Requirements
F. Definitions
V. Significant Public Comments and Rationale for Changes to the Proposed Rule
A. Legal and Applicability Issues Regulating SSI Under Section 112 vs. Section 129
B. Subcategories
C. MACT Floor Analysis
D. Baseline Emissions
E. Beyond-the-Floor Analysis
F. Cost and Economic Impacts
G. Startup, Shutdown, and Malfunction
H. Compliance Requirements
VI. Impacts of the Final Action
A. Impacts of the Final Action for Existing Units
B. Impacts of the Final Action for New Units
VII. Statutory and Executive Order Reviews
A. Executive Order 12866 and 13563: Regulatory Planning and Review
B. Paperwork Reduction Act
C. Regulatory Flexibility Act
D. Unfunded Mandates Reform Act
E. Executive Order 13132: Federalism
F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments
G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks
H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use
I. National Technology Transfer and Advancement Act
J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

I. General Information

A. Does this action apply to me?

Categories and entities potentially affected by the final action are those that operate sewage sludge incinerators (SSI). Although there is no specific NAICS code for SSI, these units may be operated by wastewater treatment facilities designed to treat domestic sewage sludge. The following NAICS codes could apply:

Category	NAICS code	Examples of potentially regulated entities
Solid waste combustors and incinerators	562213	Municipalities with SSI units.
Sewage treatment facilities	221320	

This table is not intended to be exhaustive, but rather provides a general guide for identifying entities likely to be affected by the final action. To determine whether your facility would be affected by the final action, you should examine the applicability criteria in 40 CFR 60.4770 of subpart LLLL and proposed 40 CFR 60.5005 of subpart MMMM. If you have any questions regarding the applicability of the final action to a particular entity, contact the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

B. Where can I get a copy of this document?

In addition to being available in the docket, an electronic copy of the final action will also be available on the WWW through the TTN. Following signature, a copy of the final action will be posted on the TTN's policy and guidance page for newly proposed or promulgated rules at the following address: *http://www.epa.gov/ttn/oarpg/*. The TTN provides information and technology exchange in various areas of air pollution control.

C. Judicial Review

Under CAA section 307(b)(1), judicial review of this final rule is available only by filing a petition for review in the Court by May 20, 2011. Section 307(d)(7)(B) of the CAA further provides that "only an objection to this final rule that was raised with reasonable specificity during the period for public comment can be raised during judicial review." This section also provides a mechanism for EPA to convene a proceeding for reconsideration, "[i]f the person raising an objection can demonstrate to EPA that it was impracticable to raise such objection within [the period for public comment] or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of this rule." Any person seeking to make such a demonstration to EPA should submit a Petition for Reconsideration to the Office of the Administrator, Environmental Protection Agency, Room 3000, Ariel Rios Building, 1200 Pennsylvania Ave., NW., Washington, DC 20004, with a copy to both of the contacts listed in the preceding **FOR FURTHER INFORMATION CONTACT** section, and the Associate General Counsel for the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20004. Note, under CAA section 307(b)(2), the requirements established by this final rule may not be challenged separately in any civil or criminal proceedings brought by EPA to enforce these requirements.

II. Background

A. What is the statutory background for this final rule?

Section 129 of the CAA, entitled, "Solid Waste Combustion," requires EPA to develop and adopt standards for solid waste incineration units pursuant to CAA sections 111 and 129. Section 129(a)(1)(A) of the CAA requires EPA to establish performance standards, including emission limitations, for "solid waste incineration units." Section 129 of the CAA defines "solid waste incineration unit" as "a distinct operating unit of any facility which combusts any solid waste material from commercial or industrial establishments or the general public" (section 129(g)(1)). Section 129 of the CAA also provides that "solid waste" shall have the meaning established by EPA pursuant to its authority under the RCRA (section 129(g)(6)). Sections 111(b) and 129(a) of the CAA address emissions from new units (*i.e.,* NSPS), and CAA sections 111(d) and 129(b) address emissions from existing units (*i.e.,* EG). The NSPS are directly enforceable Federal regulations, and under CAA section 129(f)(1), become effective 6 months after promulgation. Unlike the NSPS, the EG are not themselves directly enforceable. Rather, the EG are implemented and enforced through either an EPA-approved state plan or a promulgated Federal plan.

HeinOnline -- 76 Fed. Reg. 15373 2011

US EPA ARCHIVE DOCUMENT

States are required to submit a plan to implement and enforce the EG to EPA for approval not later than 1 year after EPA promulgates the EG (CAA section 129(b)(2)). The state plan must be "at least as protective as" the EG and must ensure compliance with all applicable requirements not later than 3 years after the state plan is approved by EPA, or 5 years after promulgation of the relevant EG, whichever is sooner. EPA's procedures for submitting and approving state plans are set forth in 40 CFR part 60, subpart B. When a state plan is approved by EPA, the plan requirements become federally enforceable, but the state has primary responsibility for implementing and enforcing the plan. However, EPA is required to develop, implement, and enforce a Federal plan for solid waste incineration units located in any state which has not submitted an approvable state plan within 2o years after the date of promulgation of the relevant EG (CAA section 129(b)(3)). The Federal plan must assure that each solid waste incineration unit subject to the Federal plan is in compliance with all provisions of the EG not later than 5 years after the date the relevant guidelines are promulgated. EPA views the Federal plan as a "place-holder" that remains in effect only until such time as a state without an approved plan submits and receives EPA approval of its state plan. Once an applicable state plan has been approved, the requirements of the Federal plan no longer apply to solid waste incineration units covered by that state plan.

The CAA sets forth a two-stage approach to regulating emissions from solid waste incinerator units. The statute also provides EPA with substantial discretion to distinguish among classes, types, and sizes of incineration units within a category while setting standards. In the first stage of setting standards, CAA section 129(a)(2) requires EPA to establish technology-based emission standards that reflect levels of control EPA determines are achievable for new and existing units, after considering costs, nonair quality health and environmental impacts and energy requirements associated with the implementation of the standards. Section 129(a)(5) of the CAA then directs EPA to review those standards and revise them as necessary every 5 years. In the second stage, CAA section 129(h)(3) requires EPA to determine whether further revisions of the standards are necessary in order to provide an ample margin of safety to protect public health.

In setting forth the methodology EPA must use to establish the first-stage technology-based standards for the standards, CAA section 129(a)(2) provides that standards "applicable to solid waste incineration units promulgated under section 111 and this section shall reflect the maximum degree of reduction in emissions of [certain listed air pollutants] that the Administrator, taking into consideration the cost of achieving such emission reduction and any nonair quality health and environmental impacts and energy requirements, determines is achievable for new and existing units in each category." This level of control is referred to as a MACT standard.

In promulgating a MACT standard, EPA must first calculate the minimum stringency levels for new and existing solid waste incineration units in a category, generally based on levels of emissions control achieved or required to be achieved by the subject units. The minimum level of stringency is called the MACT "floor," and CAA section 129(a)(2) sets forth differing levels of minimum stringency that EPA's standards must achieve, based on whether they regulate new and reconstructed sources, or existing sources. For new and reconstructed sources, CAA section 129(a)(2) provides that the "degree of reduction in emissions that is deemed achievable * * * shall not be less stringent than the emissions control that is achieved in practice by the best controlled similar unit, as determined by the Administrator." Emissions standards for existing units may be less stringent than standards for new units, but "shall not be less stringent than the average emissions limitation achieved by the best performing 12 percent of units in the category."

Maximum Achievable Control Technology analyses involve an assessment of the emissions from the best performing unit or units in a source category. The assessment can be based on actual emissions data, knowledge of the air pollution control in place in combination with actual emissions data, state regulatory requirements that may enable EPA to estimate the actual performance of the regulated units, or other emissions information. For each source category, the assessment involves a review of actual emissions data with an appropriate accounting for emissions variability. Other methods of estimating emissions can also be used, if the methods can be shown to provide reasonable estimates of the actual emissions performance of a source or sources. In addition to the MACT floor limit, EPA must examine whether more stringent "beyond-the-floor" standards should be adopted. In considering whether such standards are appropriate, EPA must consider the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements. The CAA requires that the MACT floor for new sources be no less stringent than the emissions control achieved in practice by the best-controlled similar unit. EPA is also required to consider beyond-the-floor standards for new sources, consistent with the factors described above. Clean Air Act section 129(a)(1) identifies five categories of solid waste incineration units:

- Units that combust municipal waste at a capacity greater than 250 tpd.
- Units that combust municipal waste at a capacity equal to or less than 250 tpd.
- Units that combust hospital, medical, and infectious waste.
- Units that combust commercial or industrial waste.
- Units that combust waste and which are not specifically identified in section 129(a)(1)(A) through (D) are referred to in section 129(a)(1)(E) as "other categories" of solid waste incineration units.

A SSI unit is an incinerator located at a wastewater treatment facility designed to treat domestic sewage sludge that combusts sewage sludge for the purpose of reducing the volume of the sewage sludge by removing combustible matter. Sewage sludge incinerators, by virtue of having not been specifically identified in section 129(a)(1)(A) through (D), have been interpreted to be part of the broader category of "other categories" of solid waste. EPA has issued emission standards for large and small MWC, HMIWI, CISWI, and OSWI units; however, as explained further below, none of those emission standards apply to SSI units.

EPA issued emission standards for OSWI units on December 16, 2005 (70 FR 74870). Based on EPA's interpretation of the CAA at that time, the OSWI standards did not include emission standards for SSI units. EPA received a petition for reconsideration of the OSWI standards on February 14, 2006, regarding the exclusion of certain categories, including SSI.[1] While EPA granted the petition for reconsideration on June 28, 2006, EPA's final review, which became effective January 22, 2007, concluded that no additional changes were necessary to the 2005 OSWI rule (71 FR 36726). That litigation is currently being held in abeyance. EPA currently intends to revise the emission standards for OSWI units in the future,

[1] *Sierra Club* v. *EPA;* DC Cir. Nos. 06–1066, 07–1063.

HeinOnline -- 76 Fed. Reg. 15374 2011

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 411 of 492

and that rulemaking will address all OSWI units except SSI units.

In the OSWI rule issued on December 16, 2005, EPA stated that it had decided not to regulate SSI units under CAA section 129 (70 FR 74870), but rather to regulate SSI units under CAA section 112, pointing to a statement in EPA's 2000 Unified Regulatory Agenda stating that sewage sludge incinerators do not combust waste from a commercial or industrial establishment or the general public. We declined to revise that decision to regulate SSI units under 112 in the response to the petition for reconsideration on this issue for five reasons, including our position that section 129(a)(1)(E) did not require regulation of all "other" solid waste incineration units and that section 129(g)(1)'s enumerated exemptions to the definition of "solid waste incineration unit" were not exclusive, and that section 129(h)(2) gave EPA the discretion to choose whether to regulate incinerators under section 112 or section 129 of the Act. (72 FR 2620). In June 2007, in a separate decision related to EPA's December 1, 2000, emission standards for CISWI units, the Court held that any unit combusting any solid waste must be regulated under section 129 of the CAA. The impact of this decision on EPA's regulation of SSI is explained in detail in the NPRM.[2]

EPA considers SSI units to be "other solid waste incineration units," since that category is intended to encompass all solid waste incineration units that are not included in the first four categories identified in CAA section 129(a) through (d). EPA plans to re-issue emission standards for the remaining OSWI units at a later time. EPA is taking final action on emission standards for SSI units at this time because these emission standards are needed as part of EPA's fulfillment of its obligations under CAA sections 112(c)(3) and (k)(3)(B)(ii) and section 112(c)(6). Clean Air Act section 112(k)(3)(B)(ii) calls for EPA to identify at least 30 HAP which, as the result of emissions from area sources, pose the greatest threat to public health in the largest number of urban areas. EPA must then ensure that sources representing 90 percent of the aggregate area source emissions of each of the 30 identified HAP are subject to standards pursuant to section 112(d).[3] Sewage sludge incineration units are one of the source categories identified for regulation to meet the 90 percent requirement for Cd, Cr, Pb, Mn, Hg, Ni and PCB. EPA is ordered by the Court to satisfy its obligation under CAA section 112(c)(3) and (k)(3)(B)(ii) by January 16, 2011.[4]

In a notice on April 10, 1998, EPA provided a list of source categories for regulation under CAA section 112(d)(2) or 112(d)(4). Section 112(c)(6) of the CAA requires EPA to identify categories of sources of seven specified pollutants to assure that sources counting for not less than 90 percent of the aggregate emissions of each such pollutant are subject to standards under CAA section 112(d)(2) or 112(d)(4) (63 FR 17838). Sewage sludge incineration units are one of the identified source categories for regulation to meet the 90 percent requirement for Hg. Further information can be found in the Memorandum titled, "Emission Standards for Meeting the Ninety Percent Requirement under Section 112(c)(6) of the Clean Air Act" in the SSI docket (EPA–HQ–OAR–2009–0559).Therefore, EPA is finalizing the SSI standards prior to taking action on the remaining source categories that will be regulated under CAA section 129(a)(1)(E) as OSWI units.

B. What are the primary sources of emissions and what are the emissions?

Sewage sludge incineration units may be operated by municipalities or other entities. Incineration continues to be used to dispose of sewage sludge. Combustion of solid waste, and specifically sewage sludge, causes the release of a wide array of air pollutants, some of which exist in the waste feed material and are released unchanged during combustion, and some of which are generated as a result of the combustion process itself. The pollutants for which numerical limits must be established, as specified in section 129 of the CAA, include Cd, CO, HCl, Hg, NO_X, PCDD/PCDF, PM, Pb, and SO_2; and, where appropriate, numerical limits for opacity must also be established. These emissions come from the SSI unit's stack and fugitive PM emissions, as indicated by the associated visible emissions, also occur from ash handling.

C. What is the relationship of the final standards to other standards for the use or disposal of sewage sludge and associated air emissions?

Under authority of section 405(d) and (e) of the CWA, as amended 33 U.S.C.A. 1251, (*et seq.*), EPA promulgated regulations on February 19, 1993, at 40 CFR part 503 designed to protect public health and the environment from any reasonably anticipated adverse effects of certain pollutants that may be present in sewage sludge. The part 503 regulations establish requirements for the final use and disposal of sewage sludge when: (1) The sludge is applied to the land for a beneficial use (*e.g.,* for use in home gardens); (2) the sludge is disposed on land by placing it on surface disposal sites; and (3) the sewage sludge is incinerated. The standards apply to POTW that generate or treat domestic sewage sludge, as well as to any person who uses or disposes of sewage sludge from such treatment works.

The part 503 requirements for firing sewage sludge in a SSI are in subpart E of the regulations. Subpart E includes general requirements; pollutant limits; operational standards; management practices; and monitoring, recordkeeping, and reporting requirements.

These part 503 regulations require that SSI meet the National Emission Standards for Beryllium and Hg in subparts C and E, respectively, of 40 CFR part 61. The regulations also require that the allowable concentration of five other inorganic pollutants be calculated using equations in the regulation. The inorganic pollutants included are Pb, As, Cd, Cr, and Ni. The terms in the equations must be determined on a case-by-case basis, except for the risk-specific concentration for the inhalation exposure pathway to protect individuals when these pollutants are inhaled. The site-specific variables for the equations (incinerator type, dispersion factor, control efficiency, feed rate, and stack height) must be used to calculate allowable daily concentrations of As, Cd, Cr, Pb and Ni in the sewage sludge fed to the incinerator.

Also included in subpart E of part 503 is an operational standard for THC. The value for THC in the final part 503 regulation cannot be exceeded in the exit gas from the SSI stack. Management practices and frequency of monitoring, recordkeeping, and reporting requirements are also included in this subpart.

Under today's final standards, EPA is establishing limits for three of the inorganic pollutants covered by the current part 503 regulations (Cd, Pb and Hg) and the following six additional pollutants: HCl, CO, NO_X, SO_2, PM, and total PCDD/PCDF. Besides the pollutants covered here, there are other differences between the part 503 regulations and these final standards. The emission limits for inorganic pollutants under part 503 are risk-based numbers rather than technology-based. Also, part 503 does not distinguish between new and existing units or between incinerator types (*i.e.,* MH or

[2] *NRDC* v. *EPA;* 489 F. 3d. at 1257–8.

[3] CAA section 112(c)(3) and section 112(k)(3)(B)(ii).

[4] *Sierra Club* v. *Jackson;* D.DC No. 1:01CV01537.

HeinOnline -- 76 Fed. Reg. 15375 2011

US EPA ARCHIVE DOCUMENT

FB incinerator) for setting emission limits since emission limits are based on risks to a highly exposed individual.

Because both part 503 and these final standards cover the same universe of facilities, there are certain issues that arise in terms of potential impacts to current SSI facilities. First, the regulation of sewage sludge under CAA section 129 will result in stricter emission standards than under the current CWA rule. Additional pollution controls will increase costs for facilities that continue to use the incineration disposal method. If the additional costs are high enough, many entities may choose to adopt alternative disposal methods (*e.g.,* surface disposal in landfills or other beneficial land applications). Consequently, a potential impact of this rule is that some of the estimated 110 facilities that operate SSI as the primary means of disposal could discontinue this practice and would instead landfill or land apply their sewage sludge. Second, one must consider the available capacity of surface disposal sites to receive additional sewage sludge and the potential for added costs if the use of SSI is discontinued. Third, SSI will be subject to two different sets of requirements (numeric standards, operational standards, monitoring, recordkeeping, and reporting) under the two different statutes, creating an additional burden to these facilities unless alternative regulatory approaches are implemented. EPA plans to evaluate the requirements under both statutes to determine what changes, if any, should be made to the part 503 regulations.

III. Summary of the Final Standards

This preamble discusses the final standards as they apply to the owner or operator of a new or existing SSI unit. This preamble also describes the major requirements of the SSI regulations. For a full description of the final requirements and compliance times, see the SSI standards in subparts LLLL and MMMM.

A. What units are affected by the final standards?

The final standards and guidelines apply to owners or operators of SSI units (as defined in 40 CFR 60.4780 and 40 CFR 60.5065) located at wastewater treatment facilities designed to treat domestic sewage sludge. A SSI unit is an enclosed device or devices using controlled flame combustion that burns sewage sludge for the purpose of reducing the volume of the sewage sludge by removing combustible matter. A SSI unit also includes, but is not limited to, the sewage sludge feed system, auxiliary fuel feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The SSI unit includes all ash handling systems connected to the bottom ash handling system. The combustion unit bottom ash system ends at the truck loading station or similar equipment that transfers the ash to final disposal. The SSI unit does not include air pollution control equipment or the stack. The affected facility is each individual SSI unit. The SSI standards in subparts LLLL and MMMM apply to new and existing SSI units that burn sewage sludge as defined in the subparts. The final standards define two subcategories for new and existing SSI units: MH incinerators and FB incinerators.

The combustion of sewage sludge that is not burned in a SSI unit located at a wastewater treatment facility designed to treat domestic sewage sludge is subject to other section 129 standards, such as the CISWI standards (40 CFR part 60, subparts CCCC and DDDD of this part), the OSWI standards (40 CFR part 60, subparts EEEE and FFFF), the MWC standards (40 CFR part 60, subparts Ea, Eb, Cb, AAAA, and BBBB of this part) or the Hazardous Waste Combustor rule (40 CFR part 63 subpart EEE).

B. What are the emission limits in the emission guidelines for existing sources?

The final emission limits for existing sources in the MH incinerator subcategory and FB incinerator subcategory are presented in Table 1 of this preamble. Existing sources may comply with either the PCDD/PCDF TEQ or TMB emission limits.

These standards apply at all times.

TABLE 1—EMISSION LIMITS FOR EXISTING SSI UNITS

Pollutant	Units	Emission limit for MH incinerators	Emission limit for FB incinerators
Cd	mg/dscm @ 7% O_2	0.095	0.0016
CO	ppmvd @ 7% O_2	3,800	64
HCl	ppmvd @ 7% O_2	1.2	0.51
Hg	mg/dscm @ 7% O_2	0.28	0.037
NO_X	ppmvd @ 7% O_2	220	150
Pb	mg/dscm @ 7% O_2	0.30	0.0074
PCDD/PCDF, TEQ	ng/dscm @ 7% O_2	0.32	0.10
PCDD/PCDF, TMB	ng/dscm @ 7% O_2	5.0	1.2
PM	mg/dscm @ 7% O_2	80	18
SO_2	ppmvd @ 7% O_2	26	15

C. What are the emission limits in the new source performance standards for new sources?

The final emission limits for new sources in the MH incinerator subcategory and FB incinerator subcategory are presented in Table 2 of this preamble. Existing sources may comply with either the PCDD/PCDF TEQ or TMB emission limits.

These standards apply at all times.

TABLE 2—EMISSION LIMITS FOR NEW SSI UNITS

Pollutant	Units	Emission limit for MH incinerators	Emission limit for FB incinerators
Cd	mg/dscm @ 7% O_2	0.0024	0.0011
CO	ppmvd @ 7% O_2	52	27
HCl	ppmvd @ 7% O_2	1.2	0.24

HeinOnline -- 76 Fed. Reg. 15376 2011

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 413 of 492

TABLE 2—EMISSION LIMITS FOR NEW SSI UNITS—Continued

Pollutant	Units	Emission limit for MH incinerators	Emission limit for FB incinerators
Hg	mg/dscm @ 7% O_2	0.15	0.0010
NO_X	ppmvd @ 7% O_2	210	30
Pb	mg/dscm @ 7% O_2	0.0035	0.00062
PCDD/PCDF, TMB	ng/dscm @ 7% O_2	0.045	0.013
PCDD/PCDF, TEQ	ng/dscm @ 7% O_2	0.0022	0.0044
PM	mg/dscm @ 7% O_2	60	9.6
SO_2	ppmvd @ 7% O_2	26	5.3

D. What are the testing and monitoring requirements?

These final standards require all new and existing SSI units to demonstrate initial and annual compliance with the emission limits using EPA-approved emission test methods. The final standards also provide an option for less frequent testing if sources demonstrate that their emissions of regulated pollutants are below thresholds of the emission limits.

For existing SSI units, the EG requires initial and annual emissions performance tests (or continuous emissions monitoring or continuous sampling as an alternative), bag leak detection systems for FF controlled units, continuous parameter monitoring, and annual inspections of air pollution control devices, if they are used to meet the emission limits. Additionally, existing units are required to conduct Method 22 (*see* 40 CFR part 60, appendix A–7) visible emissions test of the ash handling operations during each compliance test.

For new SSI units, the NSPS requires initial and annual emissions performance tests (or continuous emissions monitoring or continuous sampling as an alternative), bag leak detection systems for FF controlled units, as well as continuous parameter monitoring and annual inspections of air pollution control devices that may be used to meet the emission limits. The final rule requires all new SSI units to install a CO CEMS. Operators of new units are also required to conduct Method 22 visible emissions testing of the ash handling operations during each compliance test.

For existing SSI units, use of Cd, CO, HCl, NO_X, PM, Pb or SO_2 CEMS; ISTMMS; and ISTDMS (continuous sampling with periodic sample analysis) are approved alternatives to parametric monitoring and annual compliance testing. For new SSI units, CO CEMS are required, and use of Cd, HCl, NO_X, PM, Pb or SO_2 CEMS; ISTMMS; and ISTDMS (continuous sampling, with periodic sample analysis) are approved alternatives to parametric monitoring and annual compliance testing.

E. What are the other requirements for new and existing SSI units?

Owners or operators of new or existing SSI units are required to meet operator training and qualification requirements, which include: Ensuring that at least one operator or supervisor per facility complete the operator training course, that qualified operator(s) or supervisor(s) complete an annual review or refresher course specified in the regulation, and that they maintain plant-specific information, updated annually, regarding training.

Owners or operators of new SSI units are required to conduct a siting analysis, which includes submitting a report that evaluates site-specific air pollution control alternatives that minimize potential risks to public health or the environment, considering costs, energy impacts, non-air environmental impacts and any other factors related to the practicability of the alternatives.

Owners or operators of new or existing SSI units are required to submit a monitoring plan for any continuous monitoring system or bag leak detection system used to comply with the rule. They must also submit a monitoring plan for their ash handling system that specifies the operating procedures they will follow to ensure that they meet the fugitive emission limit.

F. What are the recordkeeping and reporting requirements?

Records of the initial and all subsequent stack or PS tests, deviation reports, operating parameter data, continuous monitoring data, maintenance and inspections of the air pollution control devices, the siting analysis (for new units only), monitoring plan and operator training and qualification must be maintained for 5 years. The results of the stack tests and PS tests and values for operating parameters are required to be included in initial and subsequent compliance reports.

G. What are the SSM provisions?

The Court vacated portions of two provisions in EPA's CAA section 112 regulations governing the emissions of HAP during periods of SSM. *Sierra Club* v. *EPA,* 551 F.3d 1019 (D.C. Cir. 2008), cert. denied, 130 S. Ct. 1735 (U.S. 2010). Specifically, the Court vacated the SSM exemption contained in 40 CFR 63.6(f)(1) and 40 CFR 63.6(h)(1), (the "General Provisions Rule,") that EPA promulgated under section 112 of the CAA. When incorporated into CAA section 112(d) regulations for specific source categories, these two provisions exempt sources from the requirement to comply with the otherwise applicable CAA section 112(d) emission standard during periods of SSM.

While the Court's ruling in *Sierra Club* v. *EPA* directly affects only the subset of CAA section 112(d) rules that incorporate 40 CFR 63.6(f)(1) and (h)(1) by reference and that contain no other regulatory text exempting or excusing compliance during SSM events, the legality of source category-specific SSM provisions is questionable.

Consistent with *Sierra Club* v. *EPA,* EPA is requiring that emission limitations in these final standards apply at all times the unit is operating. In establishing these standards, EPA has taken into account startup and shutdown periods and, for the reasons explained below, has not established different standards for those periods.

We are not promulgating a separate emission standard for the source category that applies during periods of startup and shutdown. Based on the information available at this time, we believe that SSI units will be able to meet the emission limits during periods of startup. Units we have information on use natural gas, landfill gas, or distillate oil to start the unit and add waste once the unit has reached combustion temperatures. Emissions from burning natural gas, landfill gas or distillate fuel oil are expected to generally be lower than from burning solid wastes. Emissions during periods of shutdown are also generally lower than emissions during normal operations because the

HeinOnline -- 76 Fed. Reg. 15377 2011

US EPA ARCHIVE DOCUMENT

materials in the incinerator would be almost fully combusted before shutdown occurs. Furthermore, the approach for establishing MACT floors for SSI units ranked individual SSI units based on actual performance for each pollutant and subcategory, with an appropriate accounting of emissions variability. Because we accounted for emissions variability, we believe we have adequately addressed any minor variability that may potentially occur during startup or shutdown.

Periods of startup, normal operations, and shutdown are predictable and routine aspects of a source's operations. However, by contrast, malfunction is defined as a "sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment or a process to operate in a normal or usual manner * * * " (40 CFR 60.2). EPA has determined that malfunctions should not be viewed as a distinct operating mode and, therefore, any emissions that occur at such times do not need to be factored into development of CAA section 129 standards, which, once promulgated, apply at all times. Nothing in CAA section 129 or in case law requires that EPA anticipate and account for the innumerable types of potential malfunction events in setting emission standards.[5]

Further, it is reasonable to interpret CAA section 129 as not requiring EPA to account for malfunctions in setting emissions standards. For example, we note that CAA section 129 uses the concept of "best controlled" or "best performing" sources in defining MACT, the level of stringency that major source standards must meet. Applying the concept of "best controlled" or "best performing" to a source that is malfunctioning presents significant difficulties. The goal of best controlled or best performing sources is to operate in such a way as to avoid malfunctions of their units.

Moreover, even if malfunctions were considered a distinct operating mode, we believe it would be impracticable to take malfunctions into account in setting CAA section 129 standards for SSI. As noted above, by definition, malfunctions are sudden and unexpected events, and it would be difficult to set a standard that takes into account the myriad different types of malfunctions that can occur across all sources in the category. Moreover, malfunctions can vary in frequency, degree, and duration, further complicating standard setting.

For the SSI standards, malfunctions are required to be reported in deviation reports. We will then review the deviation reports to determine if the deviation is a violation of the standards.

In the event that a source fails to comply with the applicable CAA section 129 standards as a result of a malfunction event, EPA would determine an appropriate response based on, among other things, the good faith efforts of the source to minimize emissions during malfunction periods, including preventative and corrective actions, as well as root cause analyses to ascertain and rectify excess emissions. EPA would also consider whether the source's failure to comply with the CAA section 129 standard was, in fact, "sudden, infrequent, not reasonably preventable" and was not instead "caused in part by poor maintenance or careless operation."[6]

Finally, EPA recognizes that even equipment that is properly designed and maintained can fail and that such failure can sometimes cause an exceedance of the relevant emission standard.[7] EPA is therefore finalizing the proposed affirmative defense to civil penalties for exceedances of emissions limits that are caused by malfunctions, with some revisions to the proposed regulatory provision.[8] Under this provision, the source must prove by a preponderance of the evidence that it has met all of the elements set forth in 40 CFR 60.4860 and in 40 CFR 60.5180. The criteria ensure that the affirmative defense is available only where the event that causes an exceedance of the emission limit meets the narrow definition of malfunction in 40 CFR 60.2 (sudden, infrequent, not reasonable preventable and not caused by poor maintenance and or careless operation). For example, to successfully assert the affirmative defense, the source must prove by a preponderance of the evidence that excess emissions "[w]ere caused by a sudden, infrequent, and unavoidable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner * * *." The criteria also are designed to ensure that steps are taken to correct the malfunction, to minimize emissions in accordance with 40 CFR part 60, subpart LLLL and 40 CFR part 60, subpart MMMM and to prevent future malfunctions. For example, the source must prove by a preponderance of the evidence that "[r]epairs were made as expeditiously as possible when the applicable emission limitations were being exceeded * * *" and that "[a]ll possible steps were taken to minimize the impact of the excess emissions on ambient air quality, the environment and human health * * *." In any judicial or administrative proceeding, the Administrator may challenge the assertion of the affirmative defense and, if the respondent has not met its burden of proving all of the requirements in the affirmative defense, appropriate penalties may be assessed in accordance with section 113 of the CAA (*see* also 40 CFR 22.77).

H. What are the Title V permit requirements?

All new and existing SSI units regulated by the final SSI rule are required to apply for and obtain a Title V permit. These Title V operating permits assure compliance with all applicable requirements for regulated SSI units, including all applicable CAA section 129 requirements.[9]

The permit application deadline for a CAA section 129 source applying for a Title V operating permit depends on when the source first becomes subject to the relevant Title V permits program. If a regulated SSI unit is a new unit and is not subject to an earlier permit application deadline, a complete Title V permit application must be submitted on or before the relevant date below.

- For a SSI unit that commenced operation as a new source on or before the promulgation date of 40 CFR part 60, subpart LLLL, the source must submit a complete Title V permit application no later than 12 months after the promulgation date of 40 CFR part 60, subpart LLLL; or
- For a SSI unit that commences operation as a new source after the promulgation of 40 CFR part 60, subpart LLLL, the source must submit a complete Title V permit application no

[5] *See, Weyerhaeuser* v. *Costle,* 590 F.2d 1011, 1058 (DC Cir. 1978) ("In the nature of things, no general limit, individual permit, or even any upset provision can anticipate all upset situations. After a certain point, the transgression of regulatory limits caused by 'uncontrollable acts of third parties,' such as strikes, sabotage, operator intoxication or insanity, and a variety of other eventualities, must be a matter for the administrative exercise of case-by-case enforcement discretion, not for specification in advance by regulation.").

[6] 40 CFR 60.2 (definition of malfunction).

[7] *See, e.g.,* State Implementation Plans: Policy Regarding Excessive Emissions During Malfunctions, Startup, and Shutdown (Sept. 20, 1999); Policy on Excess Emissions During Startup, Shutdown, Maintenance, and Malfunctions (Feb. 15, 1983).

[8] *See* proposed definition 40 CFR 60.4930 and 40 CFR 60.5250 (defining "affirmative defense" to mean, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding).

[9] 40 CFR 70.6(a)(1), 70.2, 71.6(a)(1) and 71.2.

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15378 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 415 of 492

later than 12 months after the date the SSI unit commences operation as a new source.[10]

If the SSI unit is an existing unit and is not subject to an earlier permit application deadline, then the source must submit a complete Title V permit application by the earlier of the following dates:

- Twelve months after the effective date of any applicable EPA-approved CAA section 111(d)/129 plan (*i.e.,* an EPA approved state or tribal plan that implements the SSI EG); or
- Twelve months after the effective date of any applicable Federal plan; or
- Thirty-six months after promulgation of 40 CFR part 60, subpart MMMM.

For any existing SSI unit not subject to an earlier permit application deadline, the application deadline of 36 months after the promulgation of 40 CFR part 60, subpart MMMM, applies regardless of whether or when any applicable Federal plan is effective, or whether or when any applicable state or tribal CAA section 111(d)/129 plan is approved by EPA and becomes effective. (*See* CAA sections 129(e), 503(c), 503(d), and 502(a) and 40 CFR 70.5(a)(1)(i) and 71.5(a)(1)(i).)

If the SSI unit is subject to Title V as a result of some triggering requirement(s) other than those mentioned above, for example, a SSI unit may be a major source (or part of a major source), then you may be required to apply for a Title V permit prior to the deadlines specified above. If more than one requirement triggers a source's obligation to apply for a Title V permit, the 12-month time frame for filing a Title V permit application is triggered by the requirement which first causes the source to be subject to Title V.[11]

For additional background information on the interface between CAA section 129 and Title V, including EPA's interpretation of section 129(e), information on updating existing Title V permit applications and reopening existing Title V permits, see the final "Federal Plan for Commercial and Industrial Solid Waste Incineration," October 3, 2003 (68 FR 57518), as well as the "Summary of Public Comments and Responses" document in the OSWI docket (EPA–HQ–OAR–2003–0156).

I. What are the applicability dates of the standards?

New SSI units that commence construction after October 14, 2010, or that are modified 6 months or more after the date of promulgation, must meet the NSPS emission limits of 40 CFR part 60, subpart LLLL within 6 months after the promulgation date of the standards or upon startup, whichever is later.

Under the final EG, and consistent with CAA section 129 (b)(2) and 40 CFR 60, subpart B, states are required to submit state plans containing the existing source emission limits of subpart MMMM of this part, and other requirements to implement and enforce the EG within 1 year after promulgation of the EG. States must submit state plans to EPA by March 21, 2012. State plans apply to existing SSI in the state (including SSI that are modified prior to and including the date 6 months after promulgation) and must be at least as protective as the EG.

The final EG requires existing SSI to demonstrate compliance with the standards as expeditiously as practicable after approval of a state plan, but no later than 3 years from the date of approval of a state plan or 5 years after promulgation of the EG, whichever is earlier. Consistent with CAA section 129, EPA expects states to require compliance as expeditiously as practicable. However, because we believe that many SSI units will find it necessary to retrofit existing emissions control equipment and/or install additional emissions control equipment in order to meet the final limits, EPA anticipates that states may choose to provide the 3-year compliance period allowed by CAA section 129(f)(2). If EPA does not approve a state plan or issue a Federal plan, then the compliance date is 5 years from the date of the final rule.

EPA intends to develop a Federal plan that will apply to existing SSI units in any state that has not submitted an approved state plan within 2 years after promulgation of the EG. The final EG allows existing SSI units subject to the Federal plan up to 5 years after promulgation of the EG to demonstrate compliance with the standards, as allowed by CAA section 129(b)(3).

J. What are the requirements for submission of emissions test results to EPA?

EPA must have performance test data to conduct effective reviews of CAA sections 112 and 129 standards, as well as for many other purposes including compliance determinations, emission factor development, and annual emission rate determinations. In conducting these required reviews, EPA has found it ineffective and time consuming, not only for us, but also for regulatory agencies and source owners and operators to locate, collect, and submit emissions test data because of varied locations for data storage and varied data storage methods. One improvement that has occurred in recent years is the availability of stack test reports in electronic format as a replacement for cumbersome paper copies.

In this final rule, EPA is taking a step to improve data accessibility and increase the ease and efficiency of reporting for sources. Owners and operators of SSI facilities are required to submit, to EPA's ERT database, electronic copies of reports of certain performance tests required under the SSI EG and NSPS. Data entry will be through an electronic emissions test report structure called the Emissions Reporting Tool (ERT) whenever conducting performance tests. The ERT was developed with input from stack testing companies who generally collect and compile performance test data electronically and offices within state and local agencies that perform field test assessments. The ERT is currently available at *http://www.epa.gov/ttn/chief/ert/ert_tool.html,* and access to direct data submittal to EPA's electronic emissions database (WebFIRE) will become available by December 31, 2011.

The requirement to submit source test data electronically to EPA would not require any additional performance testing and would apply to those performance tests conducted using test methods that are supported by the ERT. The ERT contains a specific electronic data entry form for most of the commonly used EPA reference methods. The Web site listed below contains a listing of the pollutants and test methods supported by the ERT. In addition, when a facility submits performance test data to WebFIRE, there will be no additional requirements for emissions test data compilation. Moreover, we believe industry will benefit from development of improved emission factors, fewer follow-up information requests, and better regulation development as discussed below. The information to be reported is already required for the existing test methods and is necessary to evaluate the conformance to the test method.

One major advantage of submitting source test data through the ERT is a standardized method to compile and store much of the documentation required to be reported by this rule that also clearly states what testing information would be required. Another important benefit of submitting these data to EPA at the time the source test is conducted is that it should substantially reduce the effort involved

[10] CAA section 503(c) and 40 CFR 70.5(a)(1)(i) and 71.5(a)(1)(i).

[11] CAA section 503(c) and 40 CFR 70.3(a) and (b), 70.5(a)(1)(i), 71.3(a) and (b) and 71.5(a)(1)(i).

HeinOnline -- 76 Fed. Reg. 15379 2011

US EPA ARCHIVE DOCUMENT

in data collection activities in the future. When EPA has source category performance test data in hand, there will likely be fewer or less substantial data collection requests in conjunction with prospective required residual risk assessments or technology reviews. This results in a reduced burden on both affected facilities (in terms of reduced manpower to respond to data collection requests) and EPA (in terms of preparing and distributing data collection requests and assessing the results).

State/local/tribal agencies may also benefit in that their review may be more streamlined and accurate because they would not have to re-enter the data to assess the calculations and verify the data entry. Finally, another benefit of submitting these data to WebFIRE electronically is that these data will greatly improve the overall quality of the existing and new emission factors by supplementing the pool of emissions test data upon which the emission factor is based and by ensuring that data are more representative of current industry operational procedures. A common complaint heard from industry and regulators is that emissions factors are outdated or not representative of a particular source category. Receiving and incorporating data for most performance tests will ensure that emissions factors, when updated, represent accurately the most current range of operational practices. In summary, in addition to supporting regulation development, control strategy development, and other air pollution control activities, receiving test data already collected and using them in the emissions factors development program will save industry, state/local/tribal agencies, and EPA significant time, money, and effort while improving the quality of emission inventories and related regulatory decisions.

As mentioned earlier, the electronic database that will be used is EPA's WebFIRE, which is a Web site accessible through EPA's TTN Web. The WebFIRE Web site was constructed to store emissions test data for use in developing emission factors. A description of the WebFIRE database can be found at *http://cfpub.epa.gov/oarweb/index.cfm?action=fire.main*. The ERT will be able to transmit the electronic report through EPA's CDX network for storage in the WebFIRE database. Although ERT is not the only electronic interface that can be used to submit source test data to the CDX for entry into WebFIRE, it makes submittal of data very straightforward and easy. A description of the ERT can be found at *http://www.epa.gov/ttn/chief/ert/ert_tool.html.*

IV. Summary of Significant Changes Following Proposal

EPA received over 90 public comments on the proposed rulemaking. Furthermore, we conducted one public hearing to allow the public to comment on the proposed rulemaking. After consideration of public comments received, EPA is making several changes to the standards. Following are the major changes to the standards since the proposal. The rationale for these and any other significant changes can be found in section **V** of this preamble or in the "Sewage Sludge Incineration (SSI) Rule: Summary of Public Comments and Responses" in the SSI docket (EPA–HQ–OAR–2009–0559).

A. Applicability

The final rule clarifies that, if any amount of sewage sludge is burned in an incinerator at a wastewater treatment facility designed to treat domestic sewage sludge, the incinerator is subject to the SSI standards in subparts LLLL and MMMM of this part while burning sewage sludge. The final rule also clarifies that sewage sludge that is not burned in a SSI located at a wastewater treatment facility designed to treat domestic sewage sludge is subject to other section 129 standards, such as the CISWI standards (40 CFR part 60, subparts CCCC and DDDD of this part), the OSWI standards (40 CFR part 60, subparts EEEE and FFFF), the MWC standards (40 CFR part 60, subparts Ea, Eb, Cb, AAAA, and BBBB of this part) or the Hazardous Waste Combustor rule (40 CFR part 63 subpart EEE).

B. Subcategories

The proposed NSPS did not subcategorize new sources. In the final NSPS, SSI units at new sources are subcategorized into two subcategories: MH and FB.

C. MACT Floor UPL Calculation and EG and NSPS Emission Limits

At proposal, we used a 99 percent UPL calculation to determine variability. For the final rule, for existing FB units, we are using a weighted 99 percent UPL calculation to account for the biasing of emissions data from one facility. The weighted UPL was not used for MH units.

In the proposed rule, two statistical measures, skewness and kurtosis, were examined to determine if the data used to calculate the MACT floor were normally or log-normally distributed. If both the reported values and the natural-log transformed reported values had skewness and kurtosis statistics that indicated neither were normally distributed, the reported dataset was selected as the basis of the floor to be conservative. If the results of the skewness and kurtosis hypothesis tests were mixed for the reported values and the natural log-transformed reported values, the analysis done on the reported data values was chosen to be conservative. We have modified our assumptions when results of the skewness and kurtosis tests do not clearly show whether a normal or log-normal distribution better represents the data, or when there are not enough data to complete the skewness and kurtosis tests. In these cases, we have chosen to use the log-normal results for the final MACT floor calculation.

In the proposed rule, we proposed setting beyond-the-floor emission standards for Hg emissions from existing MH units. In the final rule, we are establishing MACT floor emission limits but are not setting beyond-the-floor standards. Also, we are not finalizing the proposed opacity limits. At proposal, we set emission limits for both PCDD/PCDF TMB and PCDD/PCDF TEQ and required SSI units to meet both limits. In the final standards, we are allowing affected sources to comply with either the PCDD/PCDF TMB or TEQ emission limits.

In the proposed rule, we did not compare the CO span of the test to the measured CO values to determine if the values were consistent. For the final rule, we reviewed the CO values obtained from emission test reports to determine whether the span of the test used was capable of accurately reading the reported value. If the span was inconsistent with the reported value, the CO levels were adjusted to provide a value that was more consistent with the span. We revised the CO limits based on the results of this analysis.

The final emission limits resulting from the revised MACT floor calculations are presented in Tables 3 through 6 of this preamble, and compared to the proposed emission limits.

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15380 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 417 of 492

TABLE 3—FINAL AND PROPOSED EMISSION LIMITS FOR EXISTING FB SSI UNITS

Pollutant	Units	Proposed emission limit	Final emission limit
Cd	mg/dscm @ 7% O_2	0.0019	0.0016
CO	ppmvd @ 7% O_2	56	64
HCl	ppmvd @ 7% O_2	0.49	0.51
Hg	mg/dscm @ 7% O_2	0.0033	0.037
NO_X	ppmvd @ 7% O_2	63	150
Pb	mg/dscm @ 7% O_2	0.0098	0.0074
PCDD/PCDF, TEQ	ng/dscm @ 7% O_2	0.056	0.10
PCDD/PCDF, TMB	ng/dscm @ 7% O_2	0.61	1.2
PM	mg/dscm @ 7% O_2	12	18
SO_2	ppmvd @ 7% O_2	22	15

TABLE 4—FINAL AND PROPOSED EMISSION LIMITS FOR EXISTING MH SSI UNITS

Pollutant	Units	Proposed emission limit	Final emission limit
Cd	mg/dscm @ 7% O_2	0.095	0.095
CO	ppmvd @ 7% O_2	3,900	3,800
HCl	ppmvd @ 7% O_2	1.0	1.2
Hg	mg/dscm @ 7% O_2	0.02	0.28
NO_X	ppmvd @ 7% O_2	210	220
Pb	mg/dscm @ 7% O_2	0.30	0.30
PCDD/PCDF, TEQ	ng/dscm @ 7% O_2	0.32	0.32
PCDD/PCDF, TMB	ng/dscm @ 7% O_2	5.0	5.0
PM	mg/dscm @ 7% O_2	80	80
SO_2	ppmvd @ 7% O_2	26	26

TABLE 5—FINAL AND PROPOSED EMISSION LIMITS FOR NEW FB SSI UNITS

Pollutant	Units	Proposed emission limit	Final emission limit
Cd	mg/dscm @ 7% O_2	0.00051	0.0011
CO	ppmvd @ 7% O_2	7.4	27
HCl	ppmvd @ 7% O_2	0.12	0.24
Hg	mg/dscm @ 7% O_2	0.0010	0.0010
NO_X	ppmvd @ 7% O_2	26	30
Pb	mg/dscm @ 7% O_2	0.00053	0.00062
PCDD/PCDF, TEQ	ng/dscm @ 7% O_2	0.0022	0.0044
PCDD/PCDF, TMB	ng/dscm @ 7% O_2	0.024	0.013
PM	mg/dscm @ 7% O_2	4.1	9.6
SO_2	ppmvd @ 7% O_2	2.0	5.3

TABLE 6—FINAL AND PROPOSED EMISSION LIMITS FOR NEW MH SSI UNITS

Pollutant	Units	Proposed emission limit	Final emission limit
Cd	mg/dscm @ 7% O_2	0.00051	0.0024
CO	ppmvd @ 7% O_2	7.4	52
HCl	ppmvd @ 7% O_2	0.12	1.2
Hg	mg/dscm @ 7% O_2	0.0010	0.15
NO_X	ppmvd @ 7% O_2	26	210
Pb	mg/dscm @ 7% O_2	0.00053	0.0035
PCDD/PCDF, TEQ	ng/dscm @ 7% O_2	0.0022	0.0022
PCDD/PCDF, TMB	ng/dscm @ 7% O_2	0.024	0.045
PM	mg/dscm @ 7% O_2	4.1	60
SO_2	ppmvd @ 7% O_2	2.0	26

D. Baseline Emissions, Costs and Impacts Estimation

For the final rule, we have revised the baseline emissions, costs, and impacts to incorporate information provided by commenters. A discussion of the changes is presented in section V of this preamble. The results of these analyses are summarized in section VI of this preamble.

E. Compliance Requirements

For both the standards, the following changes have been made:

- SSI units must submit (at least 60 days before their initial compliance test date) a monitoring plan to establish that

HeinOnline -- 76 Fed. Reg. 15381 2011

US EPA ARCHIVE DOCUMENT

their ash handling system will meet the visible emissions limit on a continuous basis.

- The alternative to test less frequently (every third year) is being revised to be the following:
  - If SSI units demonstrate emissions below a specified threshold during two consecutive performance tests, they may test every 3 years instead of annually. Any year that the emission threshold is not met, the SSI must test annually until the threshold is met over a consecutive 2 year period. The alternative in the standards no longer requires that SSI units establish that they meet the lower thresholds for three consecutive years.
  - For all pollutants, less frequent testing is allowed if emissions are no greater than an emissions threshold of 75 percent of the emission limit.
  - For fugitive emissions from ash handling, less frequent testing is allowed as long as visible emissions of combustion ash occur less than or equal to two percent of each hourly observation period (the standard is five percent of each of three hourly observation periods).
- The final rule removes the requirements in the standards to maintain sludge feed rate and moisture content within specified parameters. However, sludge feed rate and sludge moisture content are still required to be monitored during performance test runs, and daily records of sludge feed rate and sludge moisture content are required to be kept.
- At proposal, operating limits were calculated based on a specified percentage of the average parameter value recorded during pollutant performance tests. In the final standards, operating parameter limits are determined on a site-specific basis as the minimum or maximum operating parameter value for the parameter, as applicable, recorded during pollutant performance tests.
- The proposed standards schedule for conducting annual performance tests was each 10–12 months. This has been changed to specify that performance tests must be conducted on a calendar year basis (no less than nine calendar months and no more than 15 calendar months following the previous performance test); and you must complete five performance tests for each such pollutant in each 5-year calendar period.
- The averaging time for demonstrating compliance with the CO CEMS operating parameters has been changed from a 4-hour rolling averaging period to a 24-hr block averaging period. The averaging times for all other operating parameters, except scrubber liquid pH, has been changed from a 4-hour rolling averaging period to a 12-hour block averaging period.
- During each compliance test run, SSI units must be operated at a minimum of 85 percent of their maximum permitted capacity.

F. Definitions

The following definitions have been revised:

- Process change means a significant permit revision, but only with respect to those pollutant-specific emission units for which the proposed permit revision is applicable, including but not limited to:

(1) A change in the process employed at the wastewater treatment facility associated with the affected SSI unit (*e.g.,* the addition of tertiary treatment at the facility, which changes the method used for disposing of process solids and processing of the sludge prior to incineration).

(2) A change in the air pollution control devices used to comply with the emission limits for the affected SSI unit (*e.g.,* change in the sorbent used for activated carbon injection).

- Sewage sludge incineration (SSI) unit means an incineration unit combusting sewage sludge for the purpose of reducing the volume of the sewage sludge by removing combustible matter. Sewage sludge incineration unit designs include fluidized bed and multiple hearth. A SSI unit also includes, but is not limited to, the sewage sludge feed system, auxiliary fuel feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The SSI unit includes all ash handling systems connected to the bottom ash handling system. The combustion unit bottom ash system ends at the truck loading station or similar equipment that transfers the ash to final disposal. The SSI unit does not include air pollution control equipment or the stack.

V. Significant Public Comments and Rationale for Changes to the Proposed Rule

This section contains a brief summary of major comments and responses. EPA received many comments on this subpart covering numerous topics. EPA's responses to all comments, including those below, can be found in the comment response document for SSI units in the docket.

A. Legal and Applicability Issues Regulating SSI Under Section 112 vs. Section 129

Comment: Many commenters contended that SSI are within the CWA definition of POTW; therefore, according to CAA section 112(e)(5), EPA must regulate SSI units under CAA section 112(d), and not CAA section 129. The commenters emphasized that SSI units are located within each respective POTW and are wholly integrated into the solids handling and treatment processes at each POTW.

Other commenters stated that SSI units cannot be regulated under CAA section 129 because they are combusting material that is generated by the POTW, which is neither a commercial or industrial establishment nor the general public as required in CAA section 129(g)(1). The commenters added that, based on the proposed definition of solid waste, even if they had a new point of generation within the POTW where they were generating solid waste, the POTW sewage sludge is from a municipal source and does not pass the broad applicability for solid waste incineration under CAA section 129. Another commenter added that CAA section 129(a)(1)(B)–(C) also directs EPA to set standards for solid waste incineration units combusting municipal waste, but to qualify as a unit combusting municipal waste, the unit must first be a solid waste incineration unit. The commenters concluded that this would not include SSI units.

Several commenters stated that EPA's determination to regulate SSI units under CAA section 129 contradicts previous decisions where EPA has stated that regulations were being developed for SSI under CAA section 112. Another commenter stated that EPA's revision to the list of source categories under CAA section 112 to delete SSI units was because there were no major sources in the source category. One commenter added that EPA's decision to regulate SSI units under CAA section 129 is based on an overly broad reading of the NRDC case. The commenter also claimed that SSI units are not within the scope of the definition of "solid waste incineration unit" in section 129 because sewage sludge is not generated by a commercial or industrial establishment or by the general public.

Response: EPA disagrees with the commenter's assertion that regulation of SSI units under section 129 is inconsistent with past EPA statements. As explained in the NPRM, EPA issued emissions standards for POTW in 1999 pursuant to section 112(d), and those emissions standards did not include standards for SSI units. In the proposed POTW emissions standards, EPA stated that "[s]ewage sludge incineration will be regulated under section 129 of the CAA[.]" *See* 63 FR 66087 (December 1,

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15382 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 419 of 492

1998). EPA also explained in the NPRM for today's action that the EPA's statements regarding SSI units during its promulgation of emissions standards for OSWI units are squarely in conflict with the Court's decision in *NRDC* v. *EPA,* 489 F.3d 1250 (D.C. Cir. 2007), which states in pertinent part that any unit that combusts any solid waste at all is subject to CAA section 129. The commenter does not appear to disagree with that conclusion, but instead simply argues that EPA cannot regulate SSI units under section 129 because it previously stated that it would regulate them under section 112. However, the NRDC decision precludes EPA from doing so. Additionally, section 112(c)(6) requires that EPA promulgate emission standards assuring that sources accounting for not less than 90 percent of the aggregate emissions of each of the HAP identified in section 112(c)(6) are subject to emission standards. EPA has determined that section 129 source categories can be included to meet our 90 percent obligations. Therefore, EPA has included SSI units in the section 112(c)(6) list of sources because SSI units are need to meet our 90 percent requirement for mercury. This decision is documented in the memorandum "Emission Standards for Meeting the Ninety Percent Requirement under Section 112(c)(6) of the Clean Air Act" in the SSI docket (EPA–HQ–OAR–2009–0559)

Moreover, section 112(e)(5) does not require EPA to issue emissions standards for SSI units under section 112(d). Rather, it simply governs the schedule for the issuance of section 112(d) emissions standards for POTW. Section 112(e), titled "Schedule for Standards and Review," generally requires EPA to establish emissions standards for initially listed source categories as expeditiously as practicable, with certain specific deadlines in section 112(e)(1). Section 112(e) further describes how EPA shall prioritize source categories for regulation, and requires EPA to establish a schedule for issuance of emissions standards for section 112 listed source categories. Finally, Congress specified a different schedule for POTW in section 112(e)(5), stating that emissions standards shall be issued no later than November 15, 1995. Thus, section 112(e)(5) does not require EPA to regulate SSI units under section 112(d), but rather simply identifies the date by which EPA must issue emissions standards for POTW.

Additionally, the commenter's interpretation of section 112(e)(5) would conflict with section 129(g) and with the DC Circuit's interpretation of section 129(g) as explained in *NRDC* v. *EPA.* Section 129(g) defines "solid waste incineration unit" to include any unit combusting any solid waste, and the Court in *NRDC* v. *EPA* rejected EPA's position that it could choose to regulate certain units, combusting solid waste, under section 112 instead of under section 129. Since SSI units do combust solid waste, EPA does not have the discretion under section 129 to create an exemption for SSI units from the statutory definition of solid waste. The court noted that section 129(g) itself specifies certain units that combust solid waste but are exempt from the definition, and noted that where Congress created such enumerated exemptions, the EPA lacks discretion to create additional ones.

EPA also disagrees with the commenter that SSI units do not combust waste from the general public. Sewage sludge clearly originates from the general public, including residential and commercial facilities. Simply because the waste is treated at a POTW prior to combustion does not change the original source of the sewage sludge. The commenter refers to a statement in EPA's 2000 Unified Regulatory Agenda to support its argument. However, the Regulatory Agenda did not represent an Agency interpretation following a notice and comment process. Moreover, as explained above, EPA's position regarding the section of the Act under which SSI units must be regulated has changed since 2000, in light of the DC Circuit's decision in *NRDC* v. *EPA.* Finally, EPA notes that its final action on reconsideration of the OSWI rule did not refer to the source of sewage sludge as a basis for concluding that regulation under section 129 was not required. Instead, as explained above, it referred to discretion the Agency believed it had at the time to choose to regulate certain solid waste incinerators under section 112—discretion the Agency no longer believes it has.

The commenter's reference to statements made in other **Federal Register** notices that pre-date the *NRDC* decision similarly fail to support its argument that EPA must regulate SSI units under section 112. Specifically, commenters refer to EPA's inclusion of SSI on the list of area source categories listed under section 112(c)(3) and (k)(3)(B)(ii) of the Act. *See* 67 FR 70427 (Nov. 22, 2002). However, that listing does not lead to the conclusion that SSI must be regulated under section 112. First, as explained above, EPA's interpretation of its authority to regulate SSI has changed following the issuance of the DC Circuit's decision in *NRDC* v. *EPA,* which occurred after the 2002 listing referred to by the commenter. Additionally, that listing included source categories that would clearly be regulated under section 129, such as medical waste incinerators and municipal waste combustors, Id. at 70428, because EPA's regulation of incinerator source categories under section 129 serves towards meeting its statutory obligations under section 112(c)(3) and (k)(3)(B)(ii). Therefore, the inclusion of SSI on that list does not indicate that such units must be regulated under section 112.

EPA further disagrees that regulation of SSI units under section 129 is unnecessary because SSI units are already regulated under section 405 of the CWA and that section 129 regulation will therefore provide no public health or environmental benefit. As explained in section VI of this preamble, today's action will benefit public health and the environment by achieving reductions of the section 129 pollutants from SSI units beyond those required by regulations issued pursuant to the CWA. Today's action must be undertaken to comply with the Clean Air Act and the court decision in *NRDC* v. *EPA.* EPA further notes that section 405 of the CWA expressly provides that nothing in that section is intended to waive more stringent requirements of any other law. Therefore, Congress clearly did not intend for regulation of SSI units under the CWA to preclude any other regulations, including regulation under CAA section 129. *Overlap with Other Standards*

Comment: Several commenters expressed concern that other types of solid waste incineration units could be considered SSI units and subject to the SSI standards if they combust any amount of sewage sludge. Some commenters added that the definition of a SSI does not have a *de minimis* level of sewage sludge burned. Other commenters requested clarification on whether SSI units burning non-sludge industrial waste would be subject to both SSI and CISWI. Some commenters suggested that SSI units be consistent with the MWC standards and provide an exemption for co-fired combustors firing 30 percent or less by weight of sewage sludge.

Commenters suggested that the SSI standards provide exclusions for all solid waste incineration units that meet the applicability requirements of other CAA section 129 standards, including MWCs regulated under Subparts Ea, Eb, Cb, AAAA, and BBBB. The commenters noted that the CISWI standards specifically exempted MWC units and other units subject to CAA section 129 standards.

HeinOnline -- 76 Fed. Reg. 15383 2011

US EPA ARCHIVE DOCUMENT

Several commenters contended that EPA should exempt incineration units subject to hazardous waste combustor regulations and/or hazardous waste management permits under the Solid Waste Disposal Act. The commenters added that CAA section 129(g)(1) states that a solid waste incineration unit does not include incinerators or other units required to have a permit under section 3005 of the SWDA. Other commenters requested EPA include an exemption for hazardous waste combustion units that are affected sources under 40 CFR part 63 subpart EEE.

Response: Section 129 defines solid waste incineration unit to include any unit combusting any solid waste. Therefore, EPA is not setting *de minimus* levels for solid waste burned in incinerators. An incinerator located at a wastewater treatment facility designed to treat domestic sewage sludge that combusts any amount of sewage sludge is subject to the final SSI standards. We have clarified that the final standards and guidelines do not apply to sewage sludge that is not burned in a SSI located at a wastewater treatment facility designed to treat domestic sewage sludge. Sewage sludge that is not burned in a SSI located at a wastewater treatment facility designed to treat domestic sewage sludge is subject to other section 129 standards, such as the CISWI standards (40 CFR part 60, subparts CCCC and DDDD of this part), the OSWI standards (40 CFR part 60, subparts EEEE and FFFF), the MWC standards (40 CFR part 60, subparts Ea, Eb, Cb, AAAA, and BBBB of this part) or the Hazardous Waste Combustor rule (40 CFR part 63 subpart EEE).

Hazardous waste combustion units that are required to have a permit under CAA section 3005 or the Solid Waste Disposal Act are exempt from CAA section 129 standards per CAA section 129(g)(1), therefore we do not believe an exemption is needed for this rule.

Comment: Several commenters objected to EPA issuing the proposed SSI standards prior to making determinations regarding the definition of non-hazardous solid waste.

Response: EPA is not making determination in this rule about the definition of non-hazardous solid waste. Section 129 of the CAA states that "solid waste" shall have meaning promulgated by the Administrator under RCRA. Therefore, today's action is consistent with using the defintion of non-hazardous secondary materials promulagted RCRA rule, elsewhere in today's **Federal Register.**

Comment: Several commenters contended that sewage sludge is not a solid waste, as the CAA defines solid waste by referencing the definition of solid waste under RCRA. The commenters added that RCRA excludes sewage sludge in what is commonly referred to as the domestic sewage exclusion (DSE). The exclusion explicitly states that solid waste does not include solid or dissolved material in domestic sewage.

Response: This comment is not relevant to EPA's establishment of emissions standards for SSI units. Rather, it is relevant to EPA's proposed Identification of Non-Hazardous Secondary Materials That Are Solid Waste rule, and is addressed in EPA's final action on that proposed rule.

B. Subcategories

Comment: Many commenters agreed with the development of separate EG for existing MH and FB units. The commenters also requested adding the same subcategories for the NSPS. The commenters added that it was inappropriate to consider the best performing FB SSI as the best performing similar source for the MH SSI new source category. They also stated that, as proposed, the NSPS standards would discourage a POTW's ability to modify existing MH units, including modifications to improve combustion efficiency or boost steam output for electricity generation. Some commenters stated that, by using the best performing FB unit as the basis for the NSPS for MH units, EPA was effectively setting a beyond-the-floor MACT limit for SSI units without considering any criteria that the statute requires. Other commenters agreed with the decision to use the best-performing FB unit as the best similar source for the MH SSI source category.

Other commenters requested further subcategorization based on size of the SSI unit, type of sewage sludge incinerated, limited use units, and distance over which the SSI would need to transport its sludge for disposal.

Response: We have considered the commenters' concerns and are setting separate standards for FB and MH units at new sources in the final rule. As discussed in the NPRM, there are two types of incinerators currently used to combust sewage sludge: MH and FB incinerators. The differences between the two combustor designs result in significant differences in emissions, size of the flue gas stream, ability to handle variability in the feeds, control of temperature and other process variables, auxiliary fuel use and other characteristics. To reflect the differences in their combustion mechanisms, two subcategories, FB and MH, were developed in the NPRM for new and existing SSI sources.

At proposal for the MH new source subcategory, we considered the best-performing FB incinerator to be the best-performing similar source because we were not aware of any new MH sources that have been constructed in the last 20 years, and information provided by the industry indicates that future units that will be constructed are likely to be FB incinerators.

We have re-evaluated our decision. Although few MH units have been constructed over the last 20 years, there is no technical reason that would preclude a source from constructing a MH unit. The same design differences that distinguish existing FB and MH units also apply to new units, and provide a similar basis for subcategorizing between the two types of units. Therefore, we are setting separate standards for MH units at new and reconstructed sources. Such subcategorization is appropriate based on the differences between FB and MH units described above, and will also serve to ensure that MH units do not avoid making modifications that may require them to meet standards based on FB units. We are not subcategorizing SSI units on any other basis because we do not have data to support distinguishing units based on class, type, or size. Without such information, we do not have a basis for concluding that these types of units should be placed in a different subcategory.

C. MACT Floor Analysis

Pollutant-by-Pollutant Approach

Comment: Many commenters objected to setting the MACT floors using a pollutant by pollutant approach because none of the facilities in EPA's database can simultaneously meet all the proposed standards. One commenter stated that EPA's MACT Floor methodology is supposed to involve "review of actual emissions data with an appropriate accounting for emissions variability". However, the commenter contended that EPA fails to follow this guidance in a practical manner in establishing MACT Floors for SSI units and that this results is unrealistically stringent limits that are not achievable for any SSI. Several commenters noted that this was especially true for the new source standards. Several commenters added that EPA's pollutant-by-pollutant basis violates the statute and its own views of the statute. One commenter stated that if EPA cannot demonstrate that the top performers can simultaneously meet all standards, EPA has improperly circumvented the

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15384 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 421 of 492

section 129 for establishing "beyond-the-floor" standards because the "floor standards would force industry-wide technological upgrades without consideration of the factors (cost and energy in particular) which Congress mandated for consideration when establishing beyond-the-floor standards."

Many commenters specifically mentioned that EPA's pollutant-by-pollutant, lowest emission methodology for setting the CO and NO_X standards is flawed because EPA did not take into account the inherent conflict in complying with two standards. The commenters noted that CO and NO_X emissions are inversely proportional. The commenters explained that decreases in CO tend to elevate NO_X and vice versa. The commenters added that high temperature combustion with long residence times and high oxygen concentration results in very low CO emissions, and that those same operating conditions favor high NO_X emissions. The commenters added that the conditions used to minimize CO (*i.e.,* high temperature afterburners) consume more fuel and produce more CO_2 emissions.

One commenter noted that the SSI unit with the most advanced control technologies, and those EPA indicated were costed in the impacts analysis, would not meet the emission limits for all of the pollutants all of the time. The commenter provided an example showing that of 11 of 30 test data points from the SSI unit in EPA's database would not comply with the Cd standard, 28 of 30 data points would not comply with the Pb standard, 22 of 30 would not comply with the HCl standard, six of six data points would not comply with the PCDD/PCDF TMB or TEQ, 86 of 105 would not comply with the CO standard, and eight of 15 would not comply with the NO_X standard. The commenter concluded that data variability has not been appropriately accounted for and that EPA's method of establishing the MACT floor based on the best performing unit for each pollutant is not reasonable.

Response: We disagree with the commenters who object to setting MACT floors on a pollutant-by pollutant basis. EPA previously has explained that although CAA section 129 does not unambiguously declare that MACT floors must be established on a pollutant-by-pollutant basis, applying the requirement to set MACT floors based on what has been achieved by the best-performing sources for each of the pollutants covered by CAA section 129 is a reasonable interpretation of EPA's obligation under that provision (62 FR 48363–64).

EPA interprets the provision in CAA section 129(a)(2) to support establishing emissions standards based on the actual emissions of "the best controlled similar unit" or "best-performing 12 percent of units in the category" for each covered pollutant. Even if we were to conclude that the commenters' interpretation is equally reasonable under the statute, which we do not, the commenters' interpretation is certainly not compelled by the statute. We maintain that our interpretation is reasonable under the statute and appropriate given the problems associated with implementing the commenters' approach.

The rest of CAA section 129 requires EPA to "establish performance standards and other requirements pursuant to section [111] of this title and this section [129] for each category of solid waste incineration units." Pursuant to CAA section 129(a)(2), those standards "shall reflect the *maximum degree of reduction* in emissions of air pollutants listed under section (a)(4)* * *." (emphasis added). Subsection (a)(4) then states: "The performance standards promulgated under section [111] of this title and this section [129] and applicable to solid waste incineration units shall specify numerical emissions limitations for the following substances or mixtures: PM (total and fine), opacity (as appropriate), sulfur dioxide, hydrogen chloride, oxides of nitrogen, carbon monoxide, lead, Cd, mercury, and dioxins and dibenzofurans." Thus, the statute requires EPA to set individual numeric performance standards based on the maximum degree of reduction in emissions actually achieved for each of nine listed pollutants. Based on this, EPA believes—and has long believed—the statute supports, if not requires, that MACT floors be derived for each pollutant based on the emission levels achieved for each pollutant. Moreover, although the provisions do not state whether there is to be a separate floor for each pollutant, the fact that Congress singled out these pollutants suggests that the floor level of control need not be limited by the performance of devices that only control some of these pollutants well.

Looking at the statute as a whole, EPA declared in the 1997 rulemaking for medical waste incinerators "The EPA does not agree that the MACT floors are to be based upon one overall unit" (62 FR 48364). Pointing for instance to subsection 129(a)(4), EPA explained:

> This provision certainly appears to direct maximum reduction of each specified pollutant. Moreover, although the provisions do not state whether there is to be a separate floor for each pollutant, the fact that Congress singled out these pollutants suggests that the floor level of control need not be limited by the performance of devices that only control some of these pollutants well.

Id.

Since 1997, the courts have consistently repeated that EPA must set emission standards based on the best-performing source for each pollutant. *See, e.g., Cement Kiln,* 255 F.3d 855, 858 (DC Cir.) ("[T]he Agency first sets emission floors for each pollutant and source category * * *."). Accordingly, EPA's pollutant-by-pollutant approach has, as outlined above, been in place since 1997 for medical waste incinerators, and even earlier for other types of incinerators regulated under section 129. *See, e.g.,* 59 FR 48198 (September 20, 1994) (municipal waste combustors). In addition, such an approach has been upheld in other contexts. *See, e.g., Chemical Mfrs. Ass'n* v. *EPA,* 870 F.2d 177, 239 (5th Cir. 1989) (concluding that basing CWA best available technology standards on a pollutant-by-pollutant basis was a rational interpretation of EPA's obligations under that similar statute). We note that the CAA MACT provisions were fashioned on that CWA program. S. Rep. No. 228, 101st Cong. 2d sess. 133–34.

Further, utilizing the single-unit theory would likely result in EPA setting the standards at levels that could, for some pollutants, actually be based on emissions limitations achieved by the worst-performing unit, rather than the *best*-performing unit, as required by the statute. See 61 FR 173687 (April 19, 1996); 62 FR 48363–64 (September 15, 1997). For example, if the best performing 12 percent of facilities for metals did not control CDD/CDF as well as a different 12 percent of facilities, the floor for PCDD/PCDF and metals would end up not reflecting best performance. Moreover, a single-unit approach would require EPA to make value judgments as to which pollutant reductions are most critical in working to identify the single unit that reduces emissions of the nine pollutants on an overall best-performing basis. Such value judgments are antithetical to the command of the statute at the MACT floor stage. It would essentially require EPA to prioritize the nine pollutants based on the relative risk to human health of each pollutant, a criterion that has no place in the establishment of MACT floors. *Sierra Club* v. *EPA (Copper Smelters),* 353 F.3d 976, 979–80 (DC Cir. 2004).

HeinOnline -- 76 Fed. Reg. 15385 2011

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The fact that the statute does not contain the phrase "for each pollutant" does not compel any inference that Congress was *sub silentio* mandating a different result when it left the provision ambiguous on this issue. The argument that MACT floors set pollutant-by-pollutant are based on the performance of a hypothetical facility, so that the limitations are not based on those achieved in practice, just re-begs the question of whether CAA section 129(a)(2) refers to whole facilities or individual pollutants. All of the emission limitations in this rule reflect actual performance and are achieved in practice.

An interpretation that the floor level of control must be limited by the performance of devices that only control some of these pollutants effectively "guts the standards" by including worse performers in the averaging process, whereas EPA's interpretation promotes the evident Congressional objective of having the floor reflect the average performance of best performing sources. Since Congress has not spoken to the precise question at issue, and EPA's interpretation effectuates statutory goals and policies in a reasonable manner, its interpretation must be upheld. See *Chevron* v. *NRDC,* 467 U.S. 837 (1984).

Commenters made much of the fact that no single facility is presently achieving all of the nine pollutant limits proposed. However, the available information compared to the final standards disputes this assertion. For the final standards, based on the data we have, our estimate of baseline emissions, and the revised emission limits, we are estimating that 155 of 204 existing SSI units can meet standards for all nine pollutants, without installing additional pollution control. We cannot make this assessment for new sources, because none have been constructed. However, we are not aware of any technical reason that new units could not install the most advanced pollution control techniques or reduce the pollutant concentrations in the sludge to meet the new source standards.

We recognize that the pollutant-by-pollutant approach for determining the MACT floor can, as it does in this case, increase the overall cost of the regulation compared to what would result under a unit-based methodology. We interpret CAA section 129 to require that the MACT floor be determined in this manner, and we believe that Congress did, in fact, intend that sources subject to regulations developed under CAA section 129 meet emissions limits that are achieved by the best controlled unit for each pollutant, as long as the control systems are compatible with each other. To our knowledge, there is no technical reason why these air pollution control systems cannot be combined.

Regarding the inverse relationship between CO and NO_X with regard to combustion control, it is incumbent upon the SSI facility to determine whether combustion conditions can be adjusted to meet both standards and, if not, install NO_X controls as necessary (*e.g.,* SNCR systems, SCR systems, FGR, or low NO_X burners). In the proposed rule, we conjectured reasons why SCR and SNCR were not used or may not be able to be used at SSI units. While we are not aware of any SSI unit that currently uses SNCR or SCR, we also do not know of technical reason why they could not be used. Given the limited data available on SSI units with FGR, we could not definitely determine how effective the technology was on SSI units. However, we also do not know of a technical reason why they could not be used, if necessary, to meet NO_X limits, and commenters did not provide any reasons they could not be used.

Dataset for the MACT Floor Analysis

Comment: Many commenters urged EPA to collect more information to set the standards. Many commenters contended that EPA does not have sufficient actual emission data from enough SSI units to properly set the MACT floor. Some commenters contended that the floor-setting provision in section 129 requires them to set the existing floor standards "based on the best performing 12 percent of sources in the category" and not just based on the sources for which they have information. The commenters contended that EPA did not have emissions data from the best-performing 12 percent of sources or even from 12 percent of sources. Additionally, the commenters stated that there is no evidence that the sources for which EPA collected data are among the top 12%. One commenter added that EPA is using actual data from as little as 4.3 percent of a subcategory (7 of 163 MH units for HCl) to determine how the top 12 percent perform.

Some commenters contended that EPA chose to limit its ICR to just nine entities because collecting information from ten or more entities would have triggered the PRA obligations and a more rigorous OMB review. The commenters concluded that EPA's plan to circumvent the PRA and OMB review resulted in an inadequate dataset for this rulemaking that leaves EPA unable to reliably take the first necessary step in a section 129 rulemaking: To determine which of the SSI units are the best performing sources.

Some commenters also contended that EPA targeted its ICR to the nine POTW expected to have the lowest emissions based on the type of unit and the installed air pollution controls. The commenters contended that EPA's targeted approach to collecting data from expected top performers undermines its ability to presume the data is a random sample representative of the entire source category or subcategory. The commenters stated that if the data gathered are not representative at the outset, then the data cannot reliably be used in a statistical equation to predict the emissions data across the source category or subcategory.

Some commenters noted that in the past, EPA has used permit or other regulatory limits, emission levels, feed rate control, and other information to establish MACT standards. Despite this flexibility, the commenters stated that EPA is proposing to use an "actual emissions" method in the SSI rule, even though it does not have actual emissions for each of the regulated pollutants from at least 12% of the units.

Another commenter stated that EPA used emission data from state databases for an additional nine MHs. The commenter stated that EPA was instructed by the Court to collect data from the best-performing 12% of existing sources, and EPA needs to justify that the emissions data from the state databases for the additional nine MHs were the 12% best performing MHs.

Response: As explained in the preamble to the proposed rule, EPA requested several SSI to conduct emissions testing and provide the results to EPA for purposes of this rulemaking. Specifically, EPA collected information on the best-performing sources to establish MACT floor standards for SSI. Therefore, EPA sent emissions tests requests under section 114 of the CAA to nine entities that own and operate SSI units. EPA identified SSI units that were expected to be the best-controlled sources and the best performers for further emissions testing. The Agency acknowledges that this selection methodology targets identifying the best-performing sources rather than selecting a representative sample of sources. However, given the court-ordered deadline for EPA to issue the final SSI rule, it was not possible to undertake the time-consuming process of sending an ICR to all the affected SSI units consistent with the requirements of the PRA.

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15386 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 423 of 492

To select the surveyed owners, EPA reviewed the inventory of SSI units for the control devices being operated, and identified a subset of units expected to have the lowest emissions based on the type of unit and the installed air pollution controls. These controls generally achieve the most reductions possible for the CAA section 129 pollutants, and thereby allow EPA to identify for each pollutant the units with the lowest emissions. For example, units were selected that operated more than one of the following technologies: Activated carbon injection to reduce Hg and dioxins/furans; RTOs or afterburners to reduce CO and organics; wet ESP to reduce fine particulate; high efficiency scrubbers such as packed bed scrubbers and impingement tray scrubbers to reduce PM, Cd, Pb, particulate Hg, and acid gases such as HCl and SO_2; and units with multiple control devices that could reduce PM, Cd, Pb, particulate Hg, such as venturi scrubber in combination with impingement scrubbers and wet ESPs or with another particulate control device. The 9 owners or operators selected were from different states in different regions of the country, providing a wide spectrum of sources for sludge generated.

Six of the nine ICR recipients operate MH units, resulting in 13 MH units surveyed. Three of the nine operate FB units, resulting in 7 FB units surveyed. Some owners of multiple units at a facility provided information for less than the total number they operated, *e.g.* 1 unit instead of 2, because not all units were in operation during the test period. Of those 20 units from the nine surveyed municipalities, EPA collected data from 17 units that were in operation (11 MH units and 6 FB units). While testing was being undertaken, the EPA also collected emission test information for 9 MH SSI units collected from state environmental agencies public databases. For some pollutants, the emissions from these supplemental test reports were lower than those from the nine ICR sources. The EPA concluded that it was appropriate to use all the emissions information from these test reports in the MACT floor analysis. The EPA also collected many test reports that were older than 15 years. The older reports were determined to not be appropriate for this rulemaking because they were unlikely to represent current emissions performance, due to their age and because they pre-dated required compliance with the CWA part 503 standard. In total, emissions information were collected from 6 FB units and 20 MH units from facilities responding to the ICR and additional test reports provided by state environmental agencies.

As discussed in the NPRM and background documentation, the EPA conducted a statistical analysis to verify the minimum number of observations needed to accurately characterize the distribution of the best-performing 12 percent of units in each subcategory. The results showed that the data utilized by EPA meets or exceeds the number of observations necessary to provide an accurate representation of that data distributed from the best-performing 12 percent of the source population. The EPA maintains that the emissions information that we have collected is adequate to determine the MACT floor for the best-performing sources. The EPA disagrees with the commenters' recommendation to use other types of data, such as permits, other regulatory limits, or feed rate controls with the emissions information to calculate the MACT floor. The other types of data mentioned do not represent the actual emissions or operation of the unit but are potential values in their permits or limits. Most units are typically operating at lower than permitted levels or emission limits.

Additionally, it would be difficult to incorporate such data into the EPA's UPL calculation because the UPL calculation is based on emission test runs of actual data, rather than limits based on permits. The permit or emission limits would be on a different basis and potentially skew the MACT floor UPL calculation.

The EPA has also updated the inventory of sources based on additional data provided in the comment letters. The inventory now contains 204 SSI units, 60 FB units and 144 MH units. Given this change in population, 12 percent of each subcategory are equal to 8 FB units and 18 MH units. Although we do not have any more emissions information than at proposal, the change in inventory results in more than 12 percent of MH units with data for PM and Hg. For these pollutants, we determined the MACT floor based on the best-performing 12 percent of emissions data, as documented in the memorandum "Revised MACT Floor Analysis for the Sewage Sludge Incinerator Source Category" in the SSI docket (EPA–HQ–OAR–2009–0559). EPA solicited additional emission test reports in the NPRM. Although many commenters summarized the results of their most recent emission tests when comparing their site-specific emissions to EPA's baseline emissions, none of the commenters actually provided the emissions test reports. The emission test reports are necessary for the EPA to review the test methods and procedures to ensure consistency with other emissions data, and to verify the tests represent a valid test result that can be used in the MACT floor analysis. Additionally, the test reports provide information necessary to correct the emissions measured into the units used for the MACT floor analysis. Therefore, these additional test result summaries, without background documentation, could not be used in the MACT floor UPL calculation.

Comment: One commenter stated that, to fill the data gap caused by the lack of actual emissions data from the required number of units in each subcategory, EPA applied statistical analysis to single test run results. Several commenters contended that, in order to enhance the data available for MACT development, EPA counted each test run as a separate data point.

Some commenters stated that basing a MACT Analysis on test runs, instead of tests, is improper. The commenters noted that CAA section 129 states that MACT standards for existing sources must be as stringent as the "emissions limitation achieved by the best performing 12 percent of units in, the category." The commenters added that, assuming that EPA equates the term "emissions limitation" with the concept of emission level (as often stated by EPA), this clause means that EPA must use the emission levels that have been achieved to set the MACT floors. The commenters contended that, under the MACT program, it takes a "minimum" of three test runs to make up a valid emissions level test. The commenter stated that a test run is not an accurate measure of the performance of the unit and should not be used as if it were. Commenters added that EPA should use the results of the test for each unit (comprised of at least three test runs) to represent what is being achieved by a unit.

Several commenters contended that EPA must go back and reset the process based on 12% of MH and 12% of FBI sources (not individual incinerators). The commenters added that it is important that individual sources, not units, be utilized because the composition of the sludge varies greatly from source to source and utilizing multiple units at one source skews the data development process and ultimately provides the basis for a flawed MACT standard at best.

Response: We disagree with the commenters. The 99 percent UPL values were calculated for each pollutant and for each subcategory using the test run

HeinOnline -- 76 Fed. Reg. 15387 2011

US EPA ARCHIVE DOCUMENT

data for those units in the best-performing 12 percent. Consistent with EPA's procedures on other MACT standards, such as HMIWI, CISWI, and boilers, the MACT floor emission limits were calculated on a run basis since compliance is based on the average of a 3-run test. The 99 percent UPL represents the value which one can expect the mean of future 3-run performance tests form the best-performing 12 percent of sources to fall below, with 99 percent confidence, based upon the results of the independent sample observations from the same best-performing sources.

Variability Calculation

For the final rule, as in the NPRM, we are incorporating variability in the MACT floor calculation for this source category using the 99 percent UPL. We are also following the same procedures for establishing limits and incorporating non-detect values as discussed in the NPRM. We have made three revisions to the variability calculation for the final rule. First, we revised the MACT floor variability calculation to incorporate weighted UPL's for existing FB units. Second, we selected log-normal results when it is not clear that data are normally distributed. Lastly, we revised the CO limits based on an analysis of the span of the test. The weighted UPL's and log-normal results are discussed in responses to comments. The revision to the CO limits based on reviewing the CO span was done to correct errors in the CO values provided in test reports and to be consistent with the calculation methods used in the CISWI and boilers rules.

Carbon monoxide values obtained from emission test reports were reviewed to determine whether the span of the test used was capable of accurately reading the reported value. If the span was inconsistent with the reported value, the CO levels were adjusted to provide a value that was more consistent with the span. EPA Method 10 is structured such that measurement data quality relative to the calibration span of the instrument can be assessed. For a measurement made using an instrumental test method, the equivalent of the method detection level can be assessed using: a square root formula, the reported calibration span value, and the allowable data quality criteria (*i.e.* the allowable calibration error, bias, and drift values). The estimated CO measurement error resulting from the square root formula was adjusted by a factor of three to be consistent with the methodology EPA applied for non-detect data (where limits no less than three times the method detection level were established).

In order to develop a basis for measurement error, instrument calibration spans in available test reports were reviewed. Where no span values could be found, it was assumed that if the test was conducted on or before May, 2008, the associated CO span would be 1000 ppm, and tests conducted after May 2008 would have a CO span of 100 ppm. This assumption was made because, before revisions were made to Method 10 in May of 2008, it was common that units were using the prescriptive span guidance that was listed in the old method. The current version of EPA Method 10 does not include these span requirements but instead requires the tester to choose calibration ranges that reflect the range of expected emission concentrations at the unit. In cases where the reported emission concentrations were lower than their corresponding measurement errors, the default measurement errors were used in lieu of the reported concentration.

These revisions are further documented in the memorandum "Revised MACT Floor Analysis for the Sewage Sludge Incinerator Source Category" in the SSI docket (EPA–HQ–OAR–2009–0559). Table 7 of this preamble shows the revised results of the MACT floor analysis for existing sources, and Table 8 of this preamble shows the results for new sources.

TABLE 7—SUMMARY OF MACT FLOOR ANALYSIS FOR EXISTING SSI UNITS

Pollutant	Units	MACT floor emission limit for FB incinerators [a]	MACT floor emission limit for MH incinerators [a]
Cd	mg/dscm@7% O_2	0.0016	0.095
CO	ppmvd@7% O_2	64	3,800
HCl	ppmvd@7% O_2	[b] 0.51	1.2
Hg	mg/dscm@7% O_2	0.037	[b] 0.28
NO_X	ppmvd@7% O_2	150	220
Pb	mg/dscm@7% O_2	0.0074	0.30
PCDD/PCDF TEQ	ng/dscm@7% O_2	0.1	0.32
PCDD/PCDF TMB	ng/dscm@7% O_2	1.2	5.0
PM	mg/dscm@7% O_2	18	80
SO_2	ppmvd@7% O_2	15	26

[a] Limits were rounded up to two significant figures.
[b] Limits represent three times the detection level.

TABLE 8—SUMMARY OF MACT FLOOR ANALYSIS FOR NEW SSI UNITS

Pollutant	Units	MACT floor emission limit for FB incinerators [a]	MACT floor emission limit for MH incinerators [a]
Cd	mg/dscm@7% O_2	0.0011	0.0024
CO	ppmvd@7% O_2	27	52
HCl	ppmvd@7% O_2	0.24	[c] 1.2
Hg	mg/dscm@7% O_2	0.0010	[b] 0.15
NO_X	ppmvd@7% O_2	30	210
Pb	mg/dscm@7% O_2	0.00062	0.0035
CDD/CDF TEQ	ng/dscm@7% O_2	0.0044	0.0022
CDD/CDF TMB	ng/dscm@7% O_2	0.013	0.045

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15388 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 425 of 492

TABLE 8—SUMMARY OF MACT FLOOR ANALYSIS FOR NEW SSI UNITS—Continued

Pollutant	Units	MACT floor emission limit for FB incinerators [a]	MACT floor emission limit for MH incinerators [a]
PM	mg/dscm@7% O_2	9.6	60
SO_2	ppmvd@7% O_2	5.3	26[c]

[a] Limits were rounded up to two significant figures.
[b] Limits represent three times the detection level.
[c] Limits defaulted to EG limits since NSPS limits were less stringent than EG.

Comment: One commenter contended that because CAA section 129 unambiguously requires EPA to set floors reflecting the "average" emission level achieved by the best sources, setting floors that instead reflect a UPL for those sources is unlawful. The commenter, added that by claiming that it can use the UPL for all sources in the top twelve percent, EPA misreads its authority to consider variability under the CAA and relevant case law. The commenter explained that, although EPA may consider variability in estimating an individual source's actual performance over time, nothing in the CAA or the case law even suggests that EPA may account for differences in performance between sources except as section 129 provides, by averaging the emission levels achieved by the sources in the top twelve percent.

Response: In assessing sources' performance, EPA may consider variability both in identifying which performers are "best" and in assessing their level of performance. *Sierra Club* v. *EPA (Brick MACT),* 479 F. 3d 875, 881–82 (D.C. Cir. 2007); see also *Mossville Environmental Action Now* v. *EPA,* 370 F.3d 1232, 1241–42 (D.C. Cir 2004) (EPA must exercise its judgment, based on an evaluation of the relevant factors and available data, to determine the level of emissions control that has been achieved by the best performing sources considering these sources' operating variability). The *Brick MACT* decision indicated that floors for existing sources must reflect the average emission limitation achieved by the best-performing 12 percent of existing sources. The *Brick MACT* decision also reiterated that EPA may account for variability in setting floors; however, the Court found that EPA erred in assessing variability because it relied on data from the worst performers to estimate best performers' variability. The Court held that "EPA may not use emission levels of the worst performers to estimate variability of the best performers without a demonstrated relationship between the two." 479 F. 3d at 882.

In determining the MACT floor limits, we first determine the floor, which, for existing sources, is the emissions limitation achieved in practice by the average of the top 12 percent of existing sources, or the level achieved in practice by the best controlled similar source for new sources. In this rule, EPA is using lowest emissions limitation as the measure of best performance. We then assess variability of the best performers by using a statistical formula designed to estimate a MACT floor level based on the average of the best performing sources using the expected distribution of future compliance tests. We used the UPL to perform this calculation, as explained below.

Variability can be accounted for using different statistical methods. For example, recent standards have used the UL or the UPL to determine the MACT floor emission limits. A UL is based on the distribution of the available emission observations (*e.g.,* test runs), and does not embody a predictive aspect that a UPL does. A prediction interval (*e.g.,* a UPL) for a future observation is an interval that will, with a specified degree of confidence, contain the next (or some other pre-specified) randomly selected observation from a population. In other words, the prediction interval estimates what future values will be, based on present or past background samples taken. Given this definition, the UPL represents the value the mean of three future test run observations (three-run average) can be expected to fall below, based on the results of the independent sample of size (n) from the same population. Therefore, should a future test condition be selected randomly from any of these sources (*i.e.,* average of three runs), we can be 99 percent confident that the reported level will fall below a MACT floor emission limit calculated using a UPL. The UPL is an appropriate statistical tool to use in determining variability in the SSI data. For this source category, where there is a limited sampling of the source category and we do not have test data from all of the SSI units in the best performing 12% for each subcategory, the predictive aspect of the UPL calculation is especially important.

Because the UPL represents the value which we can expect the mean (*i.e.,* average) of three future observations (3-run average) to fall below, based upon the results of the independent sample size from the same population, the UPL reflects average emissions. The UPL is also consistent with other recent rulemakings.

Comment: Several commenters asserted that, in setting MACT standards for existing units, EPA pooled and utilized data from all available test runs for the best performing units without regard to the number of data points available for each unit. The commenters added that, for all pollutants, the number of test runs varies from unit to unit. One commenter stated that using data this way biases the statistical results, and ultimately, the standards by over-weighting the performance of the units that have more data. The commenter suggested that EPA should employ an alternate methodology which determines the emissions limitation achieved for each best performing unit first, and then averages these limitations to determine the least stringent standard, or MACT floor.

Response: The SSI emissions database for fluidized bed units contains data from six units at four facilities. The entities surveyed were requested to provide recent (within the previous 5 years) emissions test reports. Most survey recipients provided only the most recent report. One facility, with three units, provided results of emissions test conducted for compliance reports spanning a 10-year period. This facility also uses the most advanced pollution controls on their fluidized bed units in the subcategory. This facility constitutes 70 percent of the Cd and Pb data, 90 percent of the CO and Hg data, and 75 percent of the HCl data and PM data. As a result, the existing source MACT floors calculated using the UPL methodology, and all the test run data from the one facility, effectively result in calculating more stringent limits more akin to a new source MACT floor than an existing

HeinOnline -- 76 Fed. Reg. 15389 2011

US EPA ARCHIVE DOCUMENT

source MACT floor, because it is based primarily on only the emissions performance of the best-performing single source, rather than the average of the best-performing 12 percent of sources. In order to adequately incorporate the emissions from the best-performing SSI units in the fluidized bed subcategory, a weighted UPL was used for calculating the existing source MACT floors for the final rule. The weighted UPL is calculated from a weighted mean and weighted variance as described below.

There are many different types of weighting procedures. We have chosen the most straightforward methodology, to base it on the number of data points (*i.e.,* test runs) from each SSI unit.[12] This weighting scheme ensures that no facility in the MACT best performers pool is over-represented in the computation of the MACT floor. The first step in weighting procedure is to assign a weighting factor to each test run by multiplying each observation for source *i* and run *j* with a weight term, w_{ij}, as shown in Equation 1 of this preamble:

$$w_{ij} = \left(\frac{1}{M_i}\right) \times \left(\frac{1}{N}\right) \qquad \text{(Eq. 1)}$$

Where:

M_i= Number of observations (*i.e.,* runs) for source i and

N= Number of best performing sources in the MACT pool.

The second step is to calculate the mean and total variance for the weighted data from the weight terms using Equations 2 and 3 of this preamble:

$$\text{Weighted Mean:} \quad \bar{x}^{weighted} = \frac{\sum_{i=1}^{N}\sum_{j=1}^{M_i} w_{ij} x_{ij}}{\sum_{i=1}^{N}\sum_{j=1}^{M_i} w_{ij}} \qquad \text{Equation 2}$$

$$\text{Weighted Variance:} \quad v^{weighted} = \frac{\sum_{i=1}^{N}\sum_{j=1}^{M_i} w_{ij}\left(x_{ij} - \bar{x}_U^{weighted}\right)^2}{\frac{(K-1)\sum_{i=1}^{N}\sum_{j=1}^{M_i} w_{ij}}{K}} \qquad \text{Equation 3}$$

Where:

$$K = \sum_{i=1}^{N} M_i$$

is the total number of observations in the MACT best performers pool.

When the weights are equal to one, the above equations reduce to those for un-weighted data, as expected. As shown in Equation 4 of this preamble, the weighted mean and weighted variance are then used in the UPL calculation (discussed in the NPRM) instead of the simple (*i.e.,* un-weighted) mean and variance.

$$UPL = \bar{x}^{weighted} + t(0.99, n_i - 1) \times \sqrt{\left(v^{weighted}\right) \times \left(\frac{1}{n_i} + \frac{1}{m_i}\right)} \qquad \text{Equation 4}$$

For multiple hearth units, there are more emissions data from a larger number of facilities/units. For example, we have data on Cd and Pb from 11 facilities with 14 units, Hg from 11 facilities with 18 units. The MACT floor calculations are not skewed by one or two units or facilities. Consequently, the MACT floor for existing multiple hearth units does not need to be calculated using a weighted UPL.

The revisions to the MACT floor methodology are discussed in detail in the memorandum "Revised MACT Floor Analysis for the Sewage Sludge Incinerator Source Category" in the SSI docket (EPA–HQ–OAR–2009–0559).

Comment: One commenter contended that EPA should determine the MACT floor emission limits to be consistent with EPA's Guidance for Data Quality Assessment Manual, which holds that it is more likely that environmental data are distributed log-normally. The commenter considered it reasonable to believe that environmental emission distributions are non-normal, since frequency plots typically show many readings approaching zero and fewer large readings forming an elongated tail to the right. The commenter concluded that normal distributions may exist for certain pollutants where the entire dataset is many standard deviations away from zero, and values are controlled by an air pollution control process with set points and feedback and control loops.

Response: We have reviewed the document referenced and agree with the commenter that the referenced document shows that environmental data are more likely to be log-normally distributed than normally distributed. In the proposed rule, two statistical measures, skewness and kurtosis, were examined to determine if the data used

[12] Heckert, N. A. and Filliben, James J.(2003). "NIST Handbook 148: DATAPLOT Reference Manual, Volume I: Commands", National Institute of Standards and Technology Handbook Series, June 2003. [Available at *http://www.itl.nist.gov/div898/software/dataplot/document.html*]

HeinOnline -- 76 Fed. Reg. 15390 2011

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 427 of 492

to calculate the MACT floor were normally or log-normally distributed. If both the reported values and the natural-log transformed reported values had skewness and kurtosis statistics that indicated neither were normally distributed, the reported dataset was selected as the basis of the floor to be conservative. If the results of the skewness and kurtosis hypothesis tests were mixed for the reported values and the natural log-transformed reported values, the analysis done on the reported data values was chosen to be conservative.

Based on "Guidance for Data Quality Assessment: Practical Methods for Data Analysis" EPA/600/R–96/084, July 2000, we have modified our assumptions when results of the skewness and kurtosis tests do not clearly show whether a normal or log-normal distribution better represents the data, or when there are not enough data to complete the skewness and kurtosis tests. In these cases, we have chosen to use the log-normal results for the final MACT floor calculation.

Comment: Some commenters contended that EPA incorrectly presumes that stack test results account for the full variability of a SSI's performance. Several commenters stated that emissions from SSI units are affected not just by control technology but also by other factors including the contents of the sludge that a unit is burning. Many commenters urged EPA to determine the MACT floor limits by incorporating the variability of the sludge contents. The commenters added that the methodology in developing the proposed standards does not take into account that Hg, Cd, Pb, HC1 and SO_2 emissions are a function of the sludge content of Hg, Cd, Pb, chlorine and sulfur. The commenters expressed concern that the limits were based on test results obtained with sludge containing very low concentration of metals, chlorides, and sulfur. The commenter explained that if the sludge burned during an emissions test was not at or near the maximum constituent concentration level (*e.g.,* due to seasonal variability), a new source emission limit based on these data could not be achieved over the full range of expected normal operating conditions confronted by the best performing source.

The commenters contended that EPA must consider all available data (including Part 503 data) for the best performing source and use that to establish a variability factor applied to the stack test data. The commenters added that EPA's request for metals data during the stack test is insufficient to account for the full intra-source variability. The commenters added that variability for the compounds not regulated by Part 503 must also be accounted for as well before setting the new source limit.

The commenters explained that POTW, and their SSI units, are statutorily obligated to manage all of the sewage that enters into the sanitary sewer system, resulting in highly variable and often unpredictable spikes in concentrations. The commenters continued that POTW inlet concentrations also vary based on the nature and type of dischargers. The commenters explained that POTW treat wastewater from residential, commercial and industrial dischargers in varying degrees, and pretreatment opportunities also vary because POTW authority to control discharges into the sewer system is limited and the way that authority is exercised varies. The commenters also noted that the nature of sewage entering the POTW changes over time as the character of a community changes, the age of the population changes, and commercial and industrial dischargers come and go. The commenters added that without the use of long-term data to support the level of emission standards, this variability makes numeric technology-based limits impractical and infeasible. The commenters also explained that POTW also face significant regional and seasonal variability that is not captured by EPA's dataset. The commenters stated that initial high flow periods in the spring often scour the sewers and dislodge heavier material that has settled in the sewer system during low-flow periods, which often results in a spike in metals concentrations (*e.g.,* Hg, Cd, Pb) in the sewage sludge. The commenters noted that the ICR stack tests in January and February that were used for the EPA database would not have captured these events. The commenter also noted that northern cities that use salt for de-icing roadways experience significant increases in chlorides during the winter months, and high chloride concentrations are known to improve the effectiveness of Hg control at existing wet scrubbers.

Response: The variability analysis is based on emissions information gathered from nine different facilities located in nine different states. The facilities we collected emissions information from are located in a mix of northern, southern, eastern, and western states. Each facility has its own unique sludge characteristics from different residential and commercial populations. We agree that the emissions data represents a "point in time". However, combined together, they represent sufficient variation in regions, climates and populations that adequately incorporates variability in wastewater treatment systems across the U.S. We have also incorporated variability using the UPL. The variability analysis based on the emissions data collected adequately characterizes the potential differences in sludge contents and regional differences. Because we have a mixture of southern and northern states in the emissions database, we believe that it also adequately considers differences between cold and warm weather climates. Additionally, we did not have sufficient information at proposal to consider if it were appropriate to incorporate variability based on sludge content. We requested additional information in the NPRM, but did not receive adequate sampling data from the best-performing sources.

Comment: Some commenters claimed that EPA's identification of the relevant best performing units for both existing and new unit standards is both unlawful and arbitrary, and EPA may not use sources' control technology as a proxy for their actual performance unless "pollution control technology is the only factor determining emission levels." *Cement Kiln Recycling Coalition* v. *EPA,* 255 F.3d 855. 863 (DC Cir. 2001). The commenters stated that, in *Cement Kiln Recycling Coalition* v. *EPA,* 255 F.3d 855 (DC Cir 2001) ("CKRC"), the Court considered Sierra Club's challenge that EPA could not set the floors based solely on the performance of one method: Add-on technology. The commenters added that the Court remanded the rule because EPA did not consider all of the ways facilities control emissions. The commenters stated that this requirement is consistent with doing a more complete study as required by section 111 and is antithetical to a methodology based solely on emission levels since setting the floor in this fashion does not require EPA to examine all methods of control. The commenters concluded that EPA's performance data approach in this rule may violate CKRC because EPA did not check for all methods that sources use to reduce pollution.

Response: EPA disagrees with the commenter who alleges that EPA has not properly identified the best performing SSI units for purposes of calculating MACT floor limits. As explained above, EPA targeted its emissions testing requests to units it believed had the lowest emissions, while accounting for factors such as sludge content and seasonal variation by selecting units in different geographic areas of the country.

HeinOnline -- 76 Fed. Reg. 15391 2011

US EPA ARCHIVE DOCUMENT

EPA further notes that SSI units currently employ non-technology measures (pollution prevention) to reduce emissions to comply with CWA regulations at 40 CFR part 503. These regulations establish daily average concentration limits for Pb, Cd, and other metals in sewage sludge that is disposed of by incineration. Part 503 also requires that SSI meet the National Emission Standards for Beryllium and Hg in subparts C and E, respectively, of 40 CFR part 61. In order to meet the 40 CFR part 503 standards, facilities are already incorporating management practices and measures to reduce waste and limit the concentration of pollutants in the sludge sent to SSI units, such as segregating contaminated and uncontaminated wastes and establishing discharge limits or pre-treatment standards for non-domestic users discharging wastewater to POTW. Thus, the facilities from which EPA received emissions test results are already applying non-technology measures to reduce emissions.

Comment: One commenter suggested that if EPA employs the statistical limit to set MACT floor emission limits, it should use the 99.9 percent limit. The commenter stated that the 99.9 percent UPL represents a 0.1 percent probability of a failure for individual tests, or a one percent per unit non-compliance probability per annual performance test program. The commenter concluded that this value better encompasses unit emissions variability and represents a manageable risk to the responsible facility operator.

Response: We disagree with the commenters. For the final standards, we maintain the use of 99 percent UPL is appropriate and sufficiently addresses variability in the emissions information. Our analysis of variability is explained in detail in the memorandum "Revised MACT Floor Analysis for the Sewage Sludge Incinerator Source Category" in the SSI docket (EPA–HQ–OAR–2009–0559).

Comment: Several commenters opposed an opacity limit of zero percent because opacity is a subjective measurement and no unit can meet opacity limits of zero at all times. Another commenter suggested that control and monitoring of PM is sufficient.

Response: We agree that a no visible emissions (zero opacity) limit for combustion processes is impractical for both compliance and enforcement purposes. We also believe that a measurable opacity may or may not be indicative of compliance with a PM emissions limit when applied to multiple sources within the category. That is, an opacity limit applied to one facility could very readily correspond to a PM emissions level different than that same opacity limit applied to another facility and one or both may be emitting above the PM limit. That opacity limits do not apply very well when wet control devices are used further confounds the benefit of such regulatory limits. We also agree that there are both CEMS and site-specific parametric monitoring approaches applicable to various control devices that can be more closely aligned with PM control and compliance with the PM emissions limit than would an opacity limit and opacity monitoring. Instead of establishing opacity limits that may or may not assure compliance with PM emissions limits, the final rules include rigorous requirements for establishing site-specific operating limits derived from the results of performance testing. The rules also include a requirement that sources update those enforceable operating limits with each repeated performance test. Re-establishing operating limits periodically will assure that the monitoring will continue to indicate compliance with the PM emissions limits. The rules also provide the source the option of apply CEMS to monitor directly the pollutant of interest in lieu of parametric monitoring. We believe that continuous compliance with operating limits and periodic stack testing to verify the operating limits plus the CEMS option will ensure that sources demonstrate continuous compliance with the PM emission limits more effectively than would periodic or continuous monitoring of a broadly applicable opacity limit.

Format of the Standards

Comment: Several commenters requested that EPA develop emission limits for some pollutants in different units or to provide a control efficiency alternative. The commenters expressed concern that the use of concentration limits would not reflect the variability of the unique sludge characteristics of each SSI unit, and may unfairly penalize units with very low or very high feed concentrations of certain pollutants, such as Hg, Cd, or Pb. Some commenters suggested establishing limits similar to the EPA 503 regulations, which provided emission limits based on control efficiencies coupled with feed concentration limits.

Response: We did not have sufficient data to set alternative control efficiency standards or standards in other units at proposal. We requested additional information in the proposal. However, sufficient data were not provided in response to our request for alternative formats to be developed.

D. Baseline Emissions

Comment: Commenters stated that EPA overestimated baseline emissions because EPA used incorrect air flow rate parameters, pollution control device efficiencies, sludge feed rates, and operating hours. Many commenters provided stack test data, emission estimates, and corrections to the EPA's SSI inventory database. Other commenters noted that EPA used uncorrected flue gas flow rates and flow rate factors in combination with pollutant concentrations corrected to seven percent oxygen.

Response: We have incorporated corrections to the inventory and calculation inputs provided by the commenters where applicable. In some cases, commenters did not provide information sufficient for us to revise the inventory or calculation inputs for the commenter's facility. For example, commenters may have provided an average concentration for a pollutant, but did not provide run-specific information that would allow us to convert the concentration information provided to standardized units (7 percent oxygen). Other commenters may have provided emission rates in pounds per hour, but did not provide vent gas flow rate, oxygen content, or moisture content to convert to concentration units. None of the commenters provided test reports that would have include this information.

We have also revised the calculation of baseline emissions by revising the defaults assigned to SSI units where information was not available. Defaults were necessary to be assigned because, even after new data were received in comments, a significant number of units did not have data on sludge capacity, flue gas flow rates, *etc.* A detailed discussion of the methodology used to estimate baseline emissions for the final standards is presented in the memorandum "Revised Estimation of Baseline Emissions from Existing Sewage Sludge Incineration Units"(EPA–HQ–OAR–2009–0559). The revisions to the inventory and other corrections resulted in the final rule baseline emissions shown in Table 9 of this preamble. The table shows a range of emissions for each pollutant. The lower bound represents an estimation of actual emissions based on the actual dry sludge feed rates commenters indicated their units were running. The upper bound represents an estimation of potential emissions if the sludge feed rate was at the dry sludge capacity of each unit. We estimated the potential

HeinOnline -- 76 Fed. Reg. 15392 2011

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 429 of 492

emissions because the amount of wastewater treated (and sludge produced) may vary significantly based on changes in population or sources of wastewater. Facilities have the potential to burn up to their units permitted capacity although they may not be doing so currently.

TABLE 9—ESTIMATED BASELINE EMISSIONS FOR EXISTING SSI UNITS

Pollutant	Range of baseline emissions by subcategory (TPY)		Range of total baseline emissions (TPY)
	FB	MH	
Cd	0.0022–0.0015	0.91–1.2	0.91–1.2
CO	73–100	8,400–11,500	8,500–11,600
HCl	1.6–2.2	26–41	28–43
Hg	0.040–0.058	0.85–1.15	0.9–1.2
NO_X	320–480	2,100–2,800	2,400–3,300
Pb	0.0056–0.0077	2.4–3.1	2.4–3.1
PCDD/PCDF TEQ [a]	0.00012–0.00016	0.00076–0.0010	0.0009–0.0012
PCDD/PCDF TMB [a]	0.0014–0.0020	0.011–0.015	0.013–0.017
PM	25–37	310–410	330–450
SO_2	43–57	660–1,020	700–1,100

[a] Baseline emissions are in pounds per year for PCDD/PCDF.

E. Beyond-the-Floor Analysis

Comment: Several commenters requested that EPA reconsider the beyond-the-floor Hg limit for MH units because baseline Hg emissions were overstated and costs for Hg control were understated. Many of the commenters contended that carbon injection is an unproven technology for SSI units, and is currently used at only one facility with FB units. The commenters added that the facility is undergoing significant issues with the technology.

Commenters also contended that Hg removal using carbon injection cannot be accomplished with existing PM controls, such as venturi scrubbers, and that FFs would be necessary. The commenters added that the high moisture content in the form of liquid droplets from the incinerator will plug FFs, and additional equipment may be necessary to keep the temperature above the dew point, such as an afterburner.

Response: We have revised the beyond-the-floor analysis to incorporate changes made to the baseline emissions, new facility specific data and inputs provided by commenters, and revised control options. We analyzed several beyond-the-floor controls for the final rule. First, we evaluated the use of an afterburner for control of CO at MH units. We then evaluated whether additional control of Hg should be required at MH units. We have reviewed the commenters concerns regarding Hg control technologies and agree that applying carbon injection to existing scrubbers has not been demonstrated to be effective at removing Hg. For combustion sources that are not SSI, such as boilers, carbon injection in combination with a FF has proven to be highly effective in removing Hg. However, for high moisture flue gas streams, such as emitted from SSI units, the use of FFs is problematic due to plugging/fouling. In order to use carbon injection with a FF with high moisture streams, a waste heat boiler, RTO, or afterburner is necessary to maintain a high enough temperature to keep the stream above the dew point prior to sending the stream to the FF.

Therefore, we next evaluated the combination of using an afterburner, carbon injection, and FF for additional control of Hg at MH units. Additional equipment may also be necessary to reduce the temperature of the flue gas to prevent damage to the fabric filter bags. Sufficient information was not collected to estimate this cost. Table 10 of this preamble summarizes the cost for existing SSI units to apply different controls that were analyzed.

TABLE 10—COSTS EXPECTED FOR EXISTING SSI UNITS TO APPLY MACT CONTROLS ANALYZED

[2008$]

Control analyzed	Total capital costs (million $)	Total annualized costs (million ($/yr) [a]
1—MACT Floor	55	18
2—MACT Floor + Afterburner for MH units	155	46
3—MACT Floor + Afterburner and Activated carbon injection and FF for MH units	490	138

[a] Calculated using a seven percent discount factor.

Table 11 of this preamble summarizes the emission reductions of each pollutant for various controls analyzed.

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15393 2011

TABLE 11—SUMMARY OF EMISSION REDUCTIONS FOR EXISTING UNITS TO APPLY THE MACT CONTROLS ANALYZED

Pollutant	Emission Reductions for MACT Controls Analyzed (TPY)		
	MACT floor	MACT floor + afterburner for MH units	MACT floor + afterburner + ACI and FF for MH units
Cd	0.5–0.6	0.5–0.6	0.87–1.1
CO	0	6,900–9,300	6,900–9,300
HCl	19–30	19–30	19–30
Hg	0.0022–0.0025	0.0022–0.0025	0.67–0.89
NO_X	6.8–16	6.8–16	6.8–16
Pb	1.2–1.5	1.2–1.5	2.3–2.9
PCDD/PCDF TEQ	0	0	0.0000003–0.0000004
PCDD/PCDF TMB	0	0	0.000005–0.000007
PM	58–70	58–70	300–400
SO_2	430–700	430–700	430–700

The results provided in Tables 10 and 11 of this preamble were calculated using data gathered for each source (*e.g.,* emissions, vent gas flow rates, controls currently used), as well as default values for emissions, sludge capacity, and vent gas flow rate for sources where data were unavailable. We estimate that requiring the use of an afterburner for MH units not already having an afterburner could require as much as 1,010 million cubic feet of natural gas a year to be burned, resulting in NO_X and CO emissions of 51 and 43 TPY, respectively. We estimate that applying activated carbon injection with a FF and an afterburner or RTO to all MH units to control Hg and PCDD/PCDF would result in total annualized costs of $138 million dollars (using a discount rate of seven percent) and would achieve Hg reductions of 0.67–0.89 TPY. The incremental cost-effectiveness of adding afterburners/RTO, activated carbon injection, and FFs to all MH units is estimated to be $80,000 to $100,000 per pound of Hg removed. Costs would increase if equipment necessary to cool the flue gas is also necessary. Therefore, given these factors, we are not finalizing any beyond-the-floor requirements for SSI units.

We also analyzed going beyond-the-floor to require packed bed scrubbers for additional HCl and SO_2 reduction, a wet ESP for additional PM, Cd and Pb reduction, and SNCR for additional NO_X reduction. We determined that it was not appropriate to go beyond-the-floor to achieve greater reduction of HCl, SO_2, PM, Cd, Pb, and NO_X considering the cost and secondary impacts incurred. Our beyond-the-floor analyses for the final standards are documented in the memorandum "Revised Analysis of Beyond the Maximum Achievable Control Technology (MACT) Floor Controls for Existing SSI Units" (EPA–HQ–OAR–2009–0559).

F. Cost and Economic Impacts

Comment: Commenters contended that EPA had underestimated the cost of the proposed rule for the beyond-the-floor option of Hg control as well as for the MACT floor for other pollutants because it only has information for less than 12 percent of the SSI units. The commenters added that EPA used information from these limited sources and applied it to remaining sources for which they did not have. The commenters contended that this results inaccurate determinations of which units could meet the proposed emission limits and which could not. The commenters contended that EPA overestimated the number of sources that could meet the proposed standards resulting in a significant underestimation of controls.

Some commenters also contended that EPAs choices of controls to cost for compliance with the proposed standards were inappropriate for SSI units. Many commenters stated that the high moisture content of flue gas streams in some applications may mean that FFs would not be an appropriate control for PM, Cd, or Pb.

Response: EPA is not prescribing a specific control technology or method. A source is required to meet the final emissions limits in these standards, and has the flexibility to use the control method or technology that is best suited for their individual facility. EPA's costs are estimated based on technologies we believe may be appropriate for the sources to meet the emissions limits.

At proposal, and for the final standards, we estimated costs and emissions reductions based on the best available information to us. We acknowledge that the inventory database did not have complete information for all 204 SSI units. Consequently, we developed defaults for flue gas flow rate, hours of operation, sludge capacity, and other inputs for the proposed rule. We have updated our analyses using data provided by the commenters as summarized in section IV. Summary of Significant Changes Following Proposal and the memorandum titled, "Post-Proposal SSI Database Revisions and Data Gap Filling Methodology" in the docket (EPA–HQ–OAR–2009–0559). However, for a number of inputs, we are still assigning default values where data were not available for each SSI. For the final rule, we have correlated some of the defaults to populations served by the facilities in order to better estimate costs and emission reductions more specifically to each facility. Sources will have the best idea of the costs of controls for their site specific conditions. For some sources, the costs and emission reductions estimated by EPA may be higher than what the source estimates, and for others they will be less. EPA's estimates are estimates based on the best information available to us. We also note that the MACT floor costs and emission reductions, and determination of the number of sources estimated to require control, estimated for the final rule are also based on the revised MACT floor limits.

For the final standards we have also revised the types of controls costed to meet the MACT floor limits. For SSI that we estimate will need further control of PM, Cd, or Pb to meet the MACT floor, we have costed out wet ESP as a more appropriate PM control for high moisture streams. We have also costed out SNCR for SSI that we estimate will need further control of NO_X to meet the MACT floor limits. As at proposal, we have costed out packed scrubbers for SSI that we estimate will need further control of HCl or SO_2. At the MACT floor level, we do not estimate that any SSI will need to add control for Hg, PCDD/PCDF, or CO. A detailed discussion of the costs and emissions reductions estimates for the final

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15394 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 431 of 492

standards is provided in the memorandum "Revised Cost and Emission Reduction of the MACT Floor Level of Control" in the SSI docket (EPA–HQ–OAR–2009–0559).

Comment: Commenters contended that EPA had incorrectly calculated the costs of the landfilling alternative because it used dry tons of sewage sludge instead of wet tons. The commenters added that wet tons is the appropriate basis of the sludge because even after the dewatering process, the sludge contains 70 to 80 percent moisture. Many of the commenters provided estimates for landfilling sludge from their specific unit. The commenters added that because of the error, EPA has significantly underestimated the impacts from transporting sludge by truck. Other commenters added that EPA had not evaluated the negative social impact of hauling sludge to a landfill. Some commenters added that EPA did not consider the additional costs for specific state landfilling regulations.

Several commenters contended that EPA incorrectly estimated the on-site sludge storage requirements because calculations were not done on a wet basis. Commenters added that the cost of the storage units would be significant and would need to include odor control as well as a settling basin.

Other commenters expressed concern regarding the availability of landfills to POTW needing disposal sites. The commenters contended there was insufficient landfill capacity to handle the influx of sewage sludge.

Response: We have revised our costs and impacts of the landfill alternative based on comments received on the proposal and corrections made to the analysis. Table 14 of this preamble summarizes the revised costs and impacts of this alternative if small entities choose to landfill rather than incinerate sewage sludge. A detailed discussion of the landfilling alternative analysis is provided in the memorandum "Revised Cost and Emission Reduction of the MACT Floor Level of Control" in the SSI docket (EPA–HQ–OAR–2009–0559).

Based on the revised impacts, it is unlikely that many sources will find landfilling an appropriate alternative. The selection of a management option for sewage sludge is often a local decision that is based on environmental protection concerns, community needs, geographic constraints, and economic conditions. Given a full evaluation of these factors, for some sources, landfilling or land treatment may be a better management option than incineration.

G. Startup, Shutdown, and Malfunction

Comment: Numerous commenters disagreed with EPA's proposed language requiring facilities to meet the proposed SSI standards "at all times" because it would be difficult to comply with certain proposed emission limits during startup and shutdown. Many of these commenters were specifically concerned about not being able to meet the proposed CO concentration limit upon startup of a SSI because when a heat up burner system is fired into a cold vessel, the flame tip is quenched before the combustion is completed creating a small flow of CO. One commenter contended that EPA is proposing a new source CO standard without any evidence that it can be achieved during startup, shutdown, or malfunction. This commenter provided an example of CO data from one hazardous waste combustor that averaged 2.2 ppmv during normal operations but averaged 48.6 ppmv during startup, 40.5 ppmv during shutdown, and 815.5 during malfunctions. The commenters stated that absolute pollutant levels tend to increase during startup and shutdown due to incomplete combustion that is unavoidable at lower temperatures, and noted that the influence of unstable combustion may be more pronounced during shutdowns as the incinerator combusts the remaining sewage sludge for 30 minutes or more. The commenters recommended that EPA account for situations where higher emissions occur during the time it takes to bring control equipment from startup to steady-state operations.

Response: At this time, we are not promulgating a separate emission standard for the source category that applies during periods of startup and shutdown. We do not have data that would allow us to set a separate standard during periods of startup and shutdown. We requested information in the NPRM. However, no data were provided. Based on the information available at this time, we believe that SSI units will be able to meet the emission limits during periods of startup. Units we have information on use natural gas, landfill gas, or distillate oil to start the unit and add waste once the unit has reached combustion temperatures. Emissions from burning natural gas, landfill gas or distillate fuel oil are expected to generally be lower than from burning solid wastes. Emissions during periods of shutdown are also generally lower than emissions during normal operations because the materials in the incinerator would be almost fully combusted before shutdown occurs. Furthermore, the approach for establishing MACT floors for SSI units ranked individual SSI units based on actual performance for each pollutant and subcategory, with an appropriate accounting of emissions variability. Because we accounted for emissions variability, we believe we have adequately addressed any minor variability that may potentially occur during startup or shutdown.

Periods of startup, normal operations, and shutdown are all predictable and routine aspects of a source's operations. However, by contrast, EPA has determined that malfunctions should not be viewed as a distinct operating mode and, therefore, any emissions that occur at such times were not needed to be factored into development of CAA section 129 standards, which, once promulgated, apply at all times. We note that continuous compliance is demonstrated using continuous parametric monitoring, except for CO from new sources. CO CEMS are required for new source using a 24-hour block average.

Comment: Some commenters argued that EPA incorrectly claims that its authority to prescribe unique standards for SSM periods is constrained by *Sierra Club* v. *EPA,* 551 F.3d 1019 (DC Cir. 2008). These commenters stated that EPA has failed to account adequately for emissions that occur during SSM periods. One commenter contended that the Sierra Club decision interpreted CAA section 112, not CAA section 129 (which incorporates, by reference, CAA section 111), and pointed out that this interpretation is not merely a technical distinction. The commenter pointed out that since 1977, EPA has exempted emissions during SSM events from compliance with NSPS under CAA section 111 (referenced 40 CFR 60.8(c)). The commenter argued that Congress enacted the continuous basis language in section 302(k) knowing that EPA's emissions standards under section 111 exempted SSM periods, and pointed out that there is nothing in the legislative history of the 1977 amendments to the CAA that suggests congress intended to overturn that practice.

Response: As explained above, EPA believes the reasoning in the DC Circuit's decision in *Sierra Club* v. *EPA* applies equally to section 129. Additionally, EPA explains above the reasons it is not establishing different emissions standards for periods of startup, shutdown, and malfunction.

H. Compliance Requirements

Comment: Several commenters indicated that the proposed operating parameter ranges for minimum pressure

HeinOnline -- 76 Fed. Reg. 15395 2011

US EPA ARCHIVE DOCUMENT

drop across a wet scrubber, minimum scrubber liquid flow rate, minimum scrubber liquid pH, and minimum combustion temperature (or minimum afterburner temperature) would not be achievable. They explained that these ranges are too narrow and that they will be inconsistent with the operating standards already required by 40 CFR part 60 subpart O, 40 CFR part 503, and state permits. Two commenters agreed with the proposed operating parameter ranges.

Response: The EPA reviewed the information provided by the commenters and determined that proposed procedure for establishing the operating ranges (*i.e.,* calculated as the average of three test runs and as 90 percent of the minimum value recorded during the applicable performance tests) may be too restrictive on control device operations in terms of energy or other operating needs. We determined that the operating limits should be more appropriately based on values recorded during the performance test runs. The final rule requires that operating limits be established on a site-specific basis as the minimum (or maximum, as appropriate) operating parameter value measured during the performance test. This approach has been incorporated into the final rule for all operating parameters and will result in achievable operating ranges that will ensure that the control devices used for compliance will be operated to achieve continuous compliance with the emissions limits.

Comment: Many commenters argued that the proposed operating range for sludge feed rate would not be achievable, that it results in the EPA changing the current state-permitted maximum sludge feed rate, and that it could force SSI units to conduct performance tests at maximum rated capacity. They explained that the proposed approach fails to take into account the normal feed condition and rate variation that occur on a daily and seasonal basis. A few commenters suggested that charging a SSI at 75 percent to 90 percent of its rated capacity results in a steadier state of control and more efficient combustion of the sludge.

Many commenters indicated that the proposed operating range for sludge moisture content would not be achievable and that EPA does not need sludge moisture content to determine whether SSI units are in compliance with their emission limits. They explained that sludge moisture is very sensitive to the type of dewatering equipment used, seasonal changes in the sewage or sludge received by a SSI, temperature changes, the biological systems that treat the sewage, and to operational changes, and that these changes cannot always be anticipated and are not always immediately correctable.

Response: The EPA reviewed its decision at proposal to require that SSI units maintain the sludge feed rate and sludge moisture content of the incinerated sludge within specified ranges. We determined that the operating limit for temperature of the combustion chamber (or afterburner temperature) is sufficient to ensure good combustion practice, and that moisture content is not needed to establish that SSI units are in compliance with their emission limits. If a SSI has a higher moisture content, the SSI will need to use more fuel to comply with their operating limit for temperature of the combustion chamber. We are no longer requiring that SSI units maintain sludge moisture content within specified ranges. We are also no longer requiring SSI units to maintain sludge feed rates within specified ranges due to the seasonal variability at wastewater treatment plants. Sludge feed rate information is necessary during performance test runs to establish that SSI units are in compliance with the new requirement that they conduct performance tests at 85 percent capacity. We are retaining the requirement to keep daily records of sludge feed rates and moisture contents, as SSI units should already be keeping records of these parameters, and this information will be useful in establishing representative operating limitations for a SSI unit.

EPA added a requirement that performance tests be conducted at 85 percent of the permitted maximum capacity. This level has been selected based on the performance test operating information provided by the commenters and previous EPA standards.

Comment: A few commenters indicated that the 4-hour rolling averaging period selected in the proposed rule for determining compliance with the operating parameters and CO limit was more burdensome and difficult to achieve. They explained that the recordkeeping and compliance burden is less if the averaging period for CEMS and CPMS are both based on a 24-hour block average. They also explained that the proposed CO limit on a 4-hour rolling average basis would be unachievable with MH incinerators and difficult to achieve with FB incinerators.

Response: The EPA has determined that a 24-hour block averaging period for compliance with the CO CEMS requirement for new sources will provide a sufficient indication of compliance and will allow more flexibility for facilities. Additionally, the proposed CO emission guidelines limit of 7.4 ppm for existing fluidized bed SSI units has changed in the final guidelines to 27 ppm, and this change is discussed in Section IV of this preamble. We have also revised the averaging periods for all other operating parameters, except scrubber liquid pH, to be on a 12-hour block average instead of a 4-hour rolling average basis in order to relate the averaging time for operating limits to the duration of the performance tests (*e.g.,* a three run test of 4 hour test runs would equal a 12-hour averaging time). For scrubber liquid pH, we chose 3-hour averages to be consistent with the performance test duration for acid gas scrubbers.

In the final rule, we are also not incorporating the alternative THC compliance requirement. Section 129 requires that limits be set for each of the 9 regulated pollutants. Surrogates, such as THC, cannot be used in place of the regulated pollutants.

Comment: Many commenters disagreed with the requirement in the proposed rule for annual testing, and argued that annual testing of each SSI is not needed to demonstrate compliance, too costly, and inconsistent with current Title V permits. They also argued that Method 22 compliance testing for fugitive ash emissions is not feasible or difficult to conduct due to space constraints, and that many FB incinerators utilize wet ash removal systems that do not require annual testing. They explained that the cost for emissions testing may be significantly higher than the proposed cost of $61,000 per unit. They further explained that Title V permits require facilities to test each of its SSI units once per 5 years. They pointed out that current management practices and strict health-based sludge content limits under the CWA section 405 and the CAA 40 CFR part 503 regulations will help ensure that SSI units are in compliance with their emission limits. One commenter pointed out that the proposed compliance schedule of every 10 to 12 months will essentially shorten the testing year by one month each year.

Response: The proposed standards included provisions for less frequent testing. In the final standards, EPA has revised these provisions, making it easier for facilities to qualify for less frequent testing, allowing less frequent testing for more pollutants, and ensuring that facilities that do less frequent testing are well below their emission limits. In the final standards,

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15396 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 433 of 492

owners or operators are required to establish that emissions of a given pollutant are under a specified threshold for two consecutive years, rather than 3 years as proposed, to qualify for less frequent testing for that pollutant. We have also extended the option to do less frequent testing to PCDD/PCDF and fugitive ash emissions testing. The threshold is 75 percent of the emission limit for each of the nine regulated pollutants. In order to allow a decrease in testing frequency, EPA must have assurance that SSI units can meet a more stringent threshold than the limits. This is particularly necessary because of the variability in sludge that may occur at wastewater treatment facilities. Additionally, in the final standards we are also providing assurance that the SSI unit is being operated properly and emission limits are being met continuously by requiring stringent parametric monitoring requirements. Specifically, exceedances of the minimum or maximum values established during the performance tests are considered deviations. For fugitive emissions from ash handling, owners or operators must demonstrate that visible emissions occur no more than 2 percent of the time during each Method 22 1-hour observation period. This allowance for fugitive ash emissions has been included in the final standards with a new requirement that all facilities must submit a monitoring plan at least 60 days before their initial compliance test to establish that their ash handling system will continuously meet the visible emissions limit.

Additionally, to allow facilities more flexibility regarding their test dates, to ensure that facilities are not forced to test at intervals less than 12 months, and to ensure that facilities are testing once per year, we have revised the testing schedule provisions. In the final standards, performance tests (except for pollutants that qualify for less frequent testing) must be conducted on a calendar year basis (no less than nine calendar months and no more than 15 calendar months following the previous performance test); and facilities must complete five performance tests per pollutant in each 5-year calendar period.

Comment: Many commenters requested that the definition of "process change" be revised to exclude the provision that a process change include an increase in the allowable wastewater received from an industrial source. They pointed out that any such increase would trigger a performance test, as required by the proposed standards, and that such increases did not warrant a re-test. They explained that industrial discharges often constitute only a small percentage of total influent flow (*e.g.,* 3.5 percent, four to eight percent), that such discharges are sometimes from sources that do not discharge the pollutants regulated by the proposed NSPS and guidelines (*e.g.,* food processing facilities), that some merchant SSI facilities regularly receive variable amounts of sludge from other regional wastewater treatment plants and POTW, and that it is difficult for impossible to anticipate some industrial load changes ahead of time. Several commenters argued that this proposed requirement would be redundant to the National Pretreatment Regulations at 40 CFR part 403, which are incorporated into their SSI's National Pollutant Discharge Elimination System (NPDES) permit, which require them to establish local limits on industrial discharges to prevent interference with sludge processes, use, and disposal. The commenters anticipate that they would establish similar limits to prevent noncompliance with the final emission limits. A few commenters suggested that the proposed provision for industrial discharges is vague and open to interpretation.

Response: The EPA reviewed the definition of "process change" and agrees with the commenters that there are some situations where an increase in the allowable wastewater received from an industrial source should not trigger a performance test. We have revised the definition of "process change" to more specifically and clearly identify the type of process change that will trigger a performance test. The revised definition identifies a "process change" as pollutant-specific and as including only situations where the SSI has undergone a significant permit revision. This revision will ensure that facilities retest whenever they have a significant change in the process that could trigger higher emissions of a given pollutant.

Comment: Several commenters requested EPA clarify what equipment are included as part of the SSI unit. The commenters stated that the proposed rules do not specify the equipment and without clarification, a SSI unit could be interpreted inconsistently or over-broadly. Commenters requested clarification regarding whether the "modification" (which refers to an "SSI unit") applies to the multiple hearth or fluid bed "reactor" or whether it includes the entire system including all air emission controls and auxiliary equipment.

Response: We agree that the definition of the SSI unit in the proposed rule was unclear as to what equipment constitutes the SSI unit. We have revised the definition of SSI unit in the final rule. A SSI unit means an incineration unit combusting sewage sludge for the purpose of reducing the volume of the sewage sludge by removing combustible matter. Sewage sludge incineration unit designs include fluidized bed and multiple hearth. We have clarified that a SSI unit also includes, but is not limited to, the sewage sludge feed system, auxiliary fuel feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The SSI unit includes all ash handling systems connected to the bottom ash handling system. The combustion unit bottom ash system ends at the truck loading station or similar equipment that transfers the ash to final disposal. The SSI unit does not include air pollution control equipment or the stack.

VI. Impacts of the Final Action

As discussed in sections **IV** and **V** of this preamble, we have made several revisions to the impacts analyses for the final rules. We have incorporated revisions to the variability calculation. These revisions include: incorporating weighted UPL's for existing FB units, selecting log-normal results when it is not clear that data are normally distributed, and revising CO limits based on an analysis of the span of the test. The result of these changes increased UPL values for most pollutants.

Additionally, we have incorporated corrections to the inventory and calculation inputs provided by the commenters where applicable. We have also revised the calculation of baseline emissions by revising the defaults assigned to SSI units where information was not available. These changes resulted in decreasing the baseline emissions for each of the pollutants. The combination of increase UPL and decreased baseline emissions resulted in less SSI units estimated to need additional control to meet the MACT floor limits.

For the final rules, we also selected the MACT floor level of control for both subcategories instead of selecting a beyond-the-floor requirement.

For the final rules we have also revised the types of controls costed to meet the MACT floor limits. For SSI that we estimate will need further control of PM, Cd, or Pb to meet the MACT floor, we have costed out wet ESP as a more appropriate PM control for high moisture streams. We have also costed out SNCR for SSI that we estimate will need further control of NO_X to meet the MACT floor limits. As at proposal, we have costed out packed-bed scrubbers

HeinOnline -- 76 Fed. Reg. 15397 2011

US EPA ARCHIVE DOCUMENT

for SSI that we estimate will need further control of HCl or SO_2.

A. Impacts of the Final Action for Existing Units

1. What are the primary air impacts?

We have estimated the potential emission reductions that may be realized through implementation of the final emission limits. As discussed in section V of this preamble, we have revised the estimation of baseline emissions and emission reductions to present a range to show the variability in the emission calculations between estimated actual and estimated potential sludge feed rates. Table 12 of this preamble summarizes the emission reductions for MACT compliance for each pollutant. The analysis is documented in the memorandum "Revised Analysis of Beyond the Maximum Achievable Control Technology (MACT) Floor Controls for Existing SSI Units" in the SSI docket (EPA–HQ–OAR–2009–0559).

TABLE 12—PROJECTED EMISSION REDUCTIONS FOR EXISTING SSI UNITS COMPLYING WITH THE PROPOSED EMISSION LIMITS

Pollutant	Range of reductions achieved through meeting MACT by subcategory (TPY)		Range of total reductions (TPY)
	FB	MH	
Cd	0	0.5–0.6	0.5–0.6
CO	0	0	0
HCl	0.73–0.94	18–29	19–30
Hg	0.0005–0.0006	0.0017–0.0019	0.0022–0.0025
NO_X	6.8–16	0	6.8–16
Pb	0	1.2–1.5	1.2–1.5
PCDD/PCDF TEQ	0	0	0
PCDD/PCDF TMB	0	0	0
PM	0	58–70	58–70
SO_2	17–21	420–680	430–700

2. What are the water and solid waste impacts?

We anticipate affected sources will need to apply additional controls to meet the proposed emission limits. These controls may utilize water, such as wet scrubbers, which would need to be treated. We estimate an annual requirement of 234 million gallons per year of additional wastewater will be generated as a result of operating additional controls or increased sorbents.

The analysis is documented in the memorandum "Revised Secondary Impacts for the Sewage Sludge Incineration Source Category" in the SSI docket (EPA–HQ–OAR–2009–0559).

3. What are the energy impacts?

The energy impacts associated with meeting the proposed emission limits consist primarily of additional electricity needs to run added or improved air pollution control devices. For example, increased scrubber pump horsepower may cause slight increases in electricity consumption; sorbent injection controls would likewise require electricity to power pumps and motors. We anticipate that an additional 5,420 megawatt-hours per year will be required for the additional and improved control devices. The analysis is documented in the memorandum "Revised Secondary Impacts for the Sewage Sludge Incineration Source Category" in the SSI docket (EPA–HQ–OAR–2009–0559).

4. What are the secondary air impacts?

For SSI units adding controls to meet the final emission limits, we anticipate very minor secondary air impacts. The combustion of fuel needed to generate additional electricity will yield slight increases in emissions, including NO_X, CO, PM and SO_2 and an increase in CO_2 emissions. Since NO_X and SO_2 are covered by capped emissions trading programs, and methodological limitations prevent us from quantifying the change in CO and PM, we do not estimate an increase in secondary air impacts for this rule from additional electricity demand.

5. What are the cost and economic impacts?

We have estimated compliance costs for all existing units to add the necessary controls, monitoring equipment, inspections, recordkeeping, and reporting requirements to comply with Option 1 (*i.e.,* the selected SSI standards). Based on this analysis, we anticipate an overall total capital investment of $55 million with an associated total annualized cost of $18 million, in 2008 dollars (and using a discount rate of seven percent), as shown in Table 13 of this preamble. We anticipate that owner/operators will need to install one or more air pollution control devices for 43 of the 204 affected units to meet the final emission limits. The analysis is documented in the memorandum "Revised Analysis of Beyond the Maximum Achievable Control Technology (MACT) Floor Controls for Existing SSI Units" in the SSI docket (EPA–HQ–OAR–2009–0559).

TABLE 13—SUMMARY OF COSTS FOR EXISTING SSI IF ALL ENTITIES COMPLY WITH PROPOSED EMISSION LIMITS

[Millions of 2008$]

Sub-category	Capital cost ($million)	Annualized cost ($million/yr) [a]
FB	10.1	3.1
MH	45.0	14.7
Total	55.0	17.8

[a] Calculated using a discount factor of seven percent.

Analysis of Alternative Sewage Sludge Disposal. At proposal, we evaluated landfilling as an alternative disposal method. We have revised our costs and impacts of this alternative based on comments received on the proposal and corrections made to the analysis. Table 14 of this preamble summarizes the revised costs and impacts of this alternative if small entities choose to landfill rather than incinerate sewage sludge. A detailed discussion of the landfilling alternative analysis is provided in the memorandum "Revised Cost and Emission Reduction of the MACT Floor Level of Control" in the SSI docket (EPA–HQ–OAR–2009–0559).

Based on the revised impacts, it is unlikely that many sources will find landfilling an appropriate alternative. However, the selection of a management option for sewage sludge is often a local

HeinOnline -- 76 Fed. Reg. 15398 2011

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 435 of 492

decision that is based on environmental protection concerns, community needs, geographic constraints, and economic conditions. Given a full evaluation of these factors, for some sources, landfilling or land treatment may be a better management option than incineration.

TABLE 14—SUMMARY OF REVISED COSTS FOR SMALL ENTITIES THAT LANDFILL IN LIEU OF INCINERATION

[Millions of 2008$]

Sub-category	Capital cost ($million)	Annualized cost ($million/yr) [a]
FB	278	38
MH	313	42.7
Total	591	80.7

[a] Calculated using a discount factor of seven percent.

B. Impacts of the Final Action for New Units

As discussed in the proposal, based on trends of SSI units constructed and replaced, technical advantages of FB incinerators, and information provided by the industry on likely units constructed, we believe that new SSI units constructed are likely to be FB incinerators.

1. What are the primary air impacts?

We have estimated the potential emission reductions that may be realized through implementation of the final emission limits on two new FB incinerators potentially being constructed in the next 5 years. Table 15 of this preamble summarizes these emission reductions for MACT compliance for each pollutant from two new FB incinerators. The analysis is documented in the memorandum "Revised Estimation of Impacts for New Units Constructed Within 5 Years After Promulgation of the SSI NSPS" in the SSI docket (EPA–HQ–OAR–2009–0559).

TABLE 15—EMISSION REDUCTIONS FOR TWO NEW SSI UNITS (I.E., FLUIDIZED BED INCINERATORS) CONSTRUCTED

Pollutant	Emission reduction (TPY)
Cd	0
CDD/CDF, TEQ	0.0000000033
CDD/CDF, TMB	0.000000051
CO	0.26
HCl	0
Hg	0.0026
NO_X	14
Pb	0.00053
PM	0
$PM_{2.5}$	0
SO_2	0

2. What are the water and solid waste impacts?

We anticipate affected sources would need to apply controls in addition to what they would have planned to include in the absence of this rule to meet the final emission limits. These controls may utilize water, such as wet scrubbers, which would need to be treated. We estimate an annual requirement of 8.6 million gallons per year of additional wastewater will be generated as a result of operating additional controls or increased sorbents for the two new units expected to come on-line in the next 5 years. The analysis is documented in the memorandum "Revised Analysis of Secondary Impacts for the Sewage Sludge Incineration Source Category" in the SSI docket (EPA–HQ–OAR–2009–0559).

Likewise, the application of PM controls results in particulate collected that would require disposal. Furthermore, activated carbon injection may be used by some sources, which would result in solid waste needing disposal. The annual amounts of solid waste that will require disposal are anticipated to be approximately 34 TPY from activated carbon injection for the two units.

3. What are the energy impacts?

The energy impacts associated with meeting the final emission limits would consist primarily of additional electricity needs to run added or improved air pollution control devices. For example, increased scrubber pump horsepower may cause slight increases in electricity consumption. Sorbent injection controls would likewise require electricity to power pumps and motors. By our estimate, we anticipate that an additional 300 megawatt-hours per year will be required for the additional and improved control devices for the two new units modeled to come on-line in the next 5 years. The analysis is documented in the memorandum "Revised Analysis of Secondary Impacts for the Sewage Sludge Incineration Source Category Analysis of New Units for the Sewage Sludge Incineration Source Category" in the SSI docket (EPA–HQ–OAR–2009–0559).

4. What are the secondary air impacts?

For SSI units adding controls to meet the final emission limits, we anticipate very minor secondary air impacts. The analysis is documented in the memorandum "Revised Analysis of Secondary Impacts for the Sewage Sludge Incineration Source Category."

5. What are the cost impacts?

We have estimated compliance costs for new SSI units coming on-line in the next 5 years. This analysis is based on a model plant, the assumption that two new units will come on-line and will add the necessary controls, monitoring equipment, inspections, recordkeeping, and reporting requirements to comply with the final SSI standards. Based on this analysis, we anticipate an overall total capital investment of $8 million (2008$) with an associated total annualized cost of $2 million (2008$ and using a seven percent discount rate). This analysis assumes that new SSI units constructed are only FB incinerators.

VII. Statutory and Executive Order Reviews

A. Executive Order 12866 and 13563: Regulatory Planning and Review

Under Executive Order (EO) 12866 (58 FR 51735, October 4, 1993) and EO 13563 (76 FR 3821, January 21, 2011), this action is a "significant regulatory action" because it was likely to have an annual effect on the economy of $100 million or more based on the proposed standards. However, the cost of the final standards are no longer likely to have an annual effect on the economy of $100 million or more. Despite the change in costs, EPA submitted this action to the Office of Management and Budget (OMB) for review under EOs 12866 and 13563 and any changes made in response to OMB recommendations have been documented in the docket for this action. Although EPA prepared a RIA of the potential costs and benefits associated with the proposed standards we are simply updating the RIA rather than revising it.

A RIA was prepared in September of 2010 for the proposed Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Sewage Sludge Incineration Units. However, based on the lower costs associated with the selected alternative in this final action we are providing an update of the RIA rather than completely revising the RIA. Within this update, we are providing updated costs and benefits of the controls analyzed and have provided a comparison of the selected controls with the alternatives.[13] While the characteristics of the controls analyzed have changed, we have also provided a comparison of the costs and benefits of

[13] In the RIA, the controls analyzed are referred to as Option 1 (MACT floor), Option 2 (MACT floor, plus afterburner for MH units), and Option 3 (MACT floor, plus afterburner and activated carbon injection and fabric filter for MH units).

HeinOnline -- 76 Fed. Reg. 15399 2011

US EPA ARCHIVE DOCUMENT

the proposed controls analyzed with the selected alternative in this final action. A summary of the differences are presented below.

• Costs for the selected controls analyzed for promulgation are 80% lower and benefits are 81% lower than they were for the selected controls analyzed for proposal.

• Because the regulated sewage sludge incineration is a government provided service that does not involve a market, no price, quantity, or employment impacts were estimated for the proposal RIA. The economic impact analysis focused on the comparison of control cost to total governmental revenue. Because the costs are 80% lower for the selected controls analyzed for promulgation compared to the proposed controls analyzed, the control costs are expected to be a smaller portion of government revenues for the selected controls for promulgation than they were for the proposed controls.

• Because of insufficient information, employment changes due to the requirements for operating and maintaining control equipment were not estimated. Also, we did not have the information needed to estimate any labor changes related to governmental decisions to switch from incineration to landfilling.

• Monetized benefits are greater than costs for the selected option by $3 million to $34 million at three percent and $1 million to $29 million at seven percent. The benefits from reducing exposure to HAP, direct exposure to NO_X and SO_2, ecosystem effects, and visibility impairment have not been monetized, including reducing 19 tons of HCl, 4 pounds of Hg, 2,400 pounds of Pb, and 1,000 pounds of Cd.

NET BENEFITS FOR FINAL SEWAGE SLUDGE INCINERATORS NSPS AND EG

[Millions of $2008]

MACT floor (selected)	3% Discount rate	7% Discount rate
Monetized Benefits	$21 to $52	$19 to $47.
Costs	$18 to $18	$18 to $18.
Net Benefits	$3 to $34	$1 to $29.

MONETIZED BENEFITS FOR FINAL SEWAGE SLUDGE INCINERATORS NSPS AND EG

Total monetized benefits for final controls analyzed (millions of 2008$)	3% Discount rate	7% Discount rate
MACT Floor (Selected)	$21 to $52	$19 to $47.
MACT Floor + Afterburner for MH units	$20 to $50	$18 to $45.
MACT Floor + Afterburner and Activated carbon injection and fabric filter for MH units	$55 to $140	$50 to $130.

Monetized benefits changes for MACT floor (millions of 2008$)	3% Discount rate	7% Discount rate
Proposal (MACT Floor, all comply)	$110 to $270	$100 to $250.
Final (MACT Floor)	$21 to $52	$19 to $47.
% Change	−81%	−81%.

Monetized benefits changes for selected controls analyzed (millions of 2008$)	3% Discount rate	7% Discount rate
Proposal (BTF Option 2, all comply)	$110 to $270	$100 to $250.
Final (MACT Floor)	$21 to $52	$19 to $47.
% Change	−81%	−81%.

COSTS FOR FINAL SEWAGE SLUDGE INCINERATORS NSPS AND EG

Total costs for final controls analyzed (millions of 2008$)	3% or 7% Discount rate
MACT Floor (selected)	$18
MACT Floor + Afterburner for MH units	46
MACT Floor + Afterburner and activated carbon injection + fabric filter for MH units	138

Costs changes for MACT floor (millions of 2008$)	3% or 7% Discount rate
Proposal (MACT Floor, all comply)	$63
Final (MACT Floor)	$18
% Change	−71%

Cost changes for selected controls analyzed (millions of 2008$)	3% or 7% Discount rate
Proposal (BTF Option 2, all comply)	$92
Final (MACT Floor)	$18

HeinOnline -- 76 Fed. Reg. 15400 2011

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 437 of 492

Cost changes for selected controls analyzed (millions of 2008$)	3% or 7% Discount rate
% Change	−80%

B. Paperwork Reduction Act

The information collection requirements in this rule have been submitted for approval to the OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 *et seq.* The information collection requirements are not enforceable until OMB approves them. The ICR documents prepared by EPA have been assigned EPA ICR number 2369.02 for subpart LLLL, and 2403.02 for subpart MMMM.

The recordkeeping and reporting requirements in this rule are based on the information collection requirements in CAA section 129 and EPA's NSPS General Provisions (40 CFR part 60, subpart A). The recordkeeping and reporting requirements in the General Provisions are mandatory pursuant to CAA section 114 (42 U.S.C. 7414). All information other than emissions data submitted to EPA pursuant to the information collection requirements for which a claim of confidentiality is made is safeguarded according to CAA section 114(c) and EPA's implementing regulations at 40 CFR part 2, subpart B.

The requirements in this action result in industry recordkeeping and reporting burden associated with review of the amendments for all SSI and initial and annual compliance with the emission limits using EPA approved emissions test methods. The burden also includes continuous parameter monitoring and annual inspections of air pollution control devices that may be used to meet the emission limits. Operators are required to obtain qualification and complete annual training. New units are also required to submit a report prior to construction, including a siting analysis.

When a malfunction occurs, sources must report them according to the applicable reporting requirements of Subparts LLLL and MMMM. An affirmative defense to civil penalties for exceedances of emission limits that are caused by malfunctions is available to a source if it can demonstrate that certain criteria and requirements are satisfied. The criteria ensure that the affirmative defense is available only where the event that causes an exceedance of the emission limit meets the narrow definition of malfunction in 40 CFR 60.2 (sudden, infrequent, not reasonably preventable and not caused by poor maintenance and or careless operation) and where the source took necessary actions to minimize emissions. In addition, the source must meet certain notification and reporting requirements. For example, the source must prepare a written root cause analysis and submit a written report to the Administrator documenting that it has met the conditions and requirements for assertion of the affirmative defense.

To provide the public with an estimate of the relative magnitude of the burden associated with an assertion of the affirmative defense position adopted by a source, EPA provides an administrative adjustment to this ICR that shows what the notification, recordkeeping and reporting requirements associated with the assertion of the affirmative defense might entail. EPA's estimate for the required notification, reports and records, including the root cause analysis, totals $3,141 and is based on the time and effort required of a source to review relevant data, interview plant employees, and document the events surrounding a malfunction that has caused an exceedance of an emission limit. The estimate also includes time to produce and retain the record and reports for submission to EPA. EPA provides this illustrative estimate of this burden because these costs are only incurred if there has been a violation and a source chooses to take advantage of the affirmative defense.

The annual average burden associated with the emission guidelines over the first 3 years following promulgation is estimated to be $9.6 million. This includes 39,350 hours at a total annual labor cost of $2.2 million and total annualized capital/startup and operation and maintenance costs of $7.4 million per year, associated with the monitoring requirements, storage of data and reports and photocopying and postage over the 3-year period of the ICR. The annual inspection costs are included under the recordkeeping and reporting labor costs

The annual average burden associated with the NSPS over the first 3 years following promulgation is estimated to involve 701 hours at a total annual labor cost of $40,000. The total annualized capital/startup costs are estimated at $232,000 per year. This gives a cumulative annual burden of $272,000 per year for the NSPS. Burden is defined at 5 CFR 1320.3(b).

An Agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it currently displays a valid OMB control number. The OMB control numbers for EPA's regulations in 40 CFR are listed in 40 CFR part 9. When this ICR is approved by OMB, the Agency will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control number for the approved information collection requirements contained in this final.

C. Regulatory Flexibility Act

The RFA generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedures Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of this action on small entities, a small entity is defined as follows: (1) A small business as defined by the SBA regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district, or special district with a population of less than 50,000; or (3) a small organization that is any not-for-profit enterprise that is independently-owned and operated and is not dominant in its field.

In the proposal, we certified that there would not be a significant economic impact on a substantial number of small entities. The economic analysis conducted at proposal identified 18 small entities none of which had cost-revenue-ratios greater than one percent. The cost analysis for the final standards showed a significant decrease (35 to 98 percent) in all costs for 11 of the 18 small entities. The cost-revenue-ratios were again estimated using the costs for the final rule and the same revenue estimates used in the proposal screening analysis. The revenue estimates were obtained using census average per capita revenue numbers ($1,696 for entities with populations between 10 thousand and 25 thousand and $1,677 for entities with populations between 25 thousand and 50 thousand) The resulting cost-revenue-ratios ranged between 0.04% and 0.5. Thus all cost-revenue-ratios were well below 1%. Therefore, we consider the final rule to

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15401 2011

have no significant impact on a substantial number of small entities.

After considering the economic impacts of this final rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. None of the 18 small entities has cost-revenue-ratios greater than one percent. Thus, this is not considered to be a significant impact.

Although the final rule will not have a significant economic impact on a substantial number of small entities, EPA nonetheless has tried to reduce the impact of this rule on small entities by allowing optional CEMS instead of requiring them, allowing information from tests conducted in recent years to show compliance rather than require all new testing and allowing reduced testing with continued compliance.

D. Unfunded Mandates Reform Act

This rule does not contain a Federal mandate that may result in expenditures of $100 million or more for state, local, and tribal governments, in the aggregate, or the private sector in any 1 year. Thus, this final rule is not subject to the requirements of sections 202 or 205 of UMRA.

At proposal, EPA prepared under section 202 of the UMRA a written statement that is summarized in section VIII.D of the proposal preamble (75 FR 63260, October 14, 2010). A copy of the UMRA written statement can be found in the docket.

At proposal, the estimated costs were higher than the estimated costs of the final rule. At proposal, EPA prepared an RIA, including EPA's assessment of costs and benefits, which is detailed in the "Regulatory Impact Analysis: Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Sewage Sludge Incineration Units" in the docket. Based on estimated compliance costs associated with the final rule and the predicted change in prices and production in the affected industries, the estimated social costs of the final rule are $55 million ($).

At proposal, EPA consulted with governmental entities expected to be affected by the proposed rule, consistent with the intergovernmental consultation provisions of section 204 of the UMRA. Those consultations are discussed in section VIII.D of the proposal preamble (75 FR 63260).

This final rule is not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments. Because this final rule's requirements apply equally to SSI units owned and/or operated by governments or SSI units owned and/or operated by private entities, there would be no requirements that uniquely apply to such government or impose any disproportionate impacts on them.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132.

Under Executive Order 13132, EPA may not issue an action that has federalism implications, that imposes substantial direct compliance costs, and that is not required by statute, unless the Federal government provides the funds necessary to pay the direct compliance costs incurred by state and local governments, or EPA consults with state and local officials early in the process of developing the proposed action.

EPA's proposed action estimated expenditures of greater than $100 million to state and local governments and therefore as specified by the Executive Order, EPA consulted with elected state and local government officials, or their representative national organizations, when developing regulations and policies that impose substantial compliance costs on state and local governments. Pursuant to Agency policy, EPA conducted a briefing for the "Big 10" intergovernmental organizations representing elected state and local government officials, as discussed in section VIII.D of the proposal preamble (75 FR 63260) to formally request their comments and input on the action. The Big 10 provided EPA with feedback on the proposed standards and EG for SSI units.

EPA has concluded that this final rule will not have federalism implications, as defined by Agency guidance for implementing the Executive Order, due to the final rule's direct compliance costs on state or local governments resulting in expenditures of less than $100 million.

In the spirit of Executive Order 13132 and consistent with EPA policy to promote communications between EPA and state and local governments, EPA specifically solicited comment on the proposed rule from state and local officials.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

During proposal EPA was not aware of any SSI owned or operated by an Indian tribe or tribal governments, thus, Executive Order 13175 did not appear to have implications. However as specified in Executive Order 13175, (65 FR 67249, November 9, 2000), EPA has attempted to outreach and discuss possible SSI implications with tribal contacts.

EPA presented information on the SSI proposal and specifically solicited additional comment on the proposed action from tribal contacts in the proposal period via the NTAA conference calls.

EPA has received coordinated comments from the NTAA; those comments can be reviewed in the public docket, document number EPA–HQ–OAR–2009–0559–0130.1. Commenters expressed that SSI units located in proximity to Indian country units, obtaining Title V permits, may trigger tribal consultation with regard to potential impact from the SSI unit. Commenters are dismayed, as they believe EPA failed to consult with Indian tribes regarding the standards and have failed to fully assess the potential impacts of SSI units on tribal communities. Lastly, commenters recommended that EPA provide a map overlay that accounts for both SSI units and tribal lands so tribes can acquire a better understanding on how they might be affected by such sites and these standards in general.

EPA participated on two NTAA conference calls to discuss the rule development process, first to provide general information on the development of the SSI standards and second providing more specific background information on the purpose of the rulemaking, number and locations of units, and unit types. EPA allowed time for clarifying questions and requested information if any NTAA members were aware of any type of incinerator burning sewage sludge in Indian Country. EPA will provide a map overlay for the SSI docket so that tribes can acquire a better understanding on how they might be affected by SSI sites and the standards in general.

G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks

EPA interprets Executive Order 13045 (62 FR 19885, April 23, 1997) as applying to those regulatory actions that concern health or safety risks, such that the analysis required under section 5–501 of the Executive Order has the

HeinOnline -- 76 Fed. Reg. 15402 2011

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 439 of 492

potential to influence the regulation. This final action is not subject to Executive Order 13045 because it is based solely on technology performance. We note however, that reductions in air emissions by these facilities will improve air quality, with expected positive impacts for children's health.

H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use

This action is not subject to Executive Order 13211 (66 FR 28355, May 22, 2001), because it is not a significant regulatory action under Executive Orders 12866 and 13563.

I. National Technology Transfer and Advancement Act

Section 12(d) of the NTTAA of 1995, Public Law 104–113, 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards (VCS) in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (*e.g.,* materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by VCS bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable VCS.

EPA conducted searches for the "Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Sewage Sludge Incineration Units" through the Enhanced National Standards Service Network Database managed by the ANSI. We also contacted VCS organizations, accessed, and searched their data bases.

This rulemaking involves technical standards. EPA has decided to use ANSI/ASME PTC 19.10–1981, "Flue and Exhaust Gas Analyses," for its manual methods of measuring the oxygen or carbon dioxide content of the exhaust gas. These parts of ASME PTC 19.10–1981 are acceptable alternatives to EPA Methods 6, 7. This standard is available from the ASME, Three Park Avenue, New York, NY 10016–5990.

Another VCS, ASTM D6784–02 (Reapproved 2008), "Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury Gas Generated From Coal-Fired Stationary Sources (Ontario Hydro Method)" is an acceptable alternative to Method 29 and 30B. EPA has also decided to use EPA Methods 5, 6, 6C, 7, 7E, 9, 10, 10A, 10B, 22, 23, 26A, 29 and 30B. No VCS were found for EPA Method 9 and 22.

During the search, if the title or abstract (if provided) of the VCS described technical sampling and analytical procedures that are similar to EPA's reference method, EPA ordered a copy of the standard and reviewed it as a potential equivalent method. All potential standards were reviewed to determine the practicality of the VCS for this rule. This review requires significant method validation data that meet the requirements of EPA Method 301 for accepting alternative methods or scientific, engineering and policy equivalence to procedures in EPA reference methods. EPA may reconsider determinations of impracticality when additional information is available for particular VCS.

The search identified other VCS that were potentially applicable for this rule in lieu of EPA reference methods. After reviewing the available standards, EPA determined that candidate VCS (ASME B133.9–1994 (2001), ISO 9096:1992 (2003), ANSI/ASME PTC PTC–38–1980 (1985), ASTM D3685/D3685M–98 (2005), CAN/CSA Z223.1–M1977, ANSI/ASME PTC 19.10–1981, ISO 10396:1993 (2007), ISO 12039:2001, ASTM D5835–95 (2007), ASTM D6522–00 (2005), CAN/CSA Z223.2–M86 (1999), ISO 7934:1998, ISO 11632:1998, ASTM D1608–98 (2003), ISO I1564:1998, CAN/CSA Z223.24–MI983, CAN/CSA Z223.21–MI978, ASTM D3162–94 (2005), EN 1948–3 (1996), EN 1911–1,2,3 (1998), ASTM D6735–01, EN 13211:2001, CAN/CSA Z223.26–MI987) identified for measuring emissions of pollutants or their surrogates subject to emission standards in the rule would not be practical due to lack of equivalency, documentation, validation data, and other important technical and policy considerations.

Under 40 CFR 60.13(i) of the NSPS General Provisions, a source may apply to EPA for permission to use alternative test methods or alternative monitoring requirements in place of any required testing methods, performance specifications, or procedures in the final rule and any amendments.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898 (59 FR 7629, February 16, 1994) establishes Federal executive policy on environmental justice. Its main provision directs Federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies and activities on minority populations and low-income populations in the United States.

EPA has determined that this final rule will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it increases the level of environmental protection for all affected populations without having any disproportionately high and adverse human health or environmental effects on any population, including any minority or low-income populations. Additionally, the Agency has reviewed this final rule to determine if there was existing disproportionately high and adverse human health or environmental effects on minority or low-income populations that could be mitigated by this rulemaking. An analysis of demographic data showed that the average of populations in close proximity to the sources, and thus most likely to be effected by the sources, were similar in demographic composition to national averages. The results of the demographic analysis are presented in "Review of Environmental Justice Impacts," June 2010, a copy of which is available in the SSI docket (EPA–HQ–OAR–2009–0559).

This final action establishes national emission standards for new and existing SSI units. The EPA estimates that there are approximately 204 such units covered by this rule. The final rule will reduce emissions of many of the listed HAP emitted from this source. This includes emissions of Cd, HCl, Pb, and Hg. Adverse health effects from these pollutants include cancer, irritation of the lungs, skin and mucus membranes, effects on the central nervous system and damage to the kidneys and acute health disorders. The rule will also result in substantial reductions of criteria pollutants such as CO, NO_X, PM and $PM_{2.5}$ and SO_2. Sulfur dioxide and NO_X are precursors for the formation of $PM_{2.5}$ and ozone. Reducing these emissions will reduce ozone and $PM_{2.5}$ formation and associated health effects, such as adult premature mortality, chronic and acute bronchitis, asthma and other respiratory and cardiovascular diseases. For additional information, please refer to the RIA contained in the docket for this rulemaking. In EPA's July 2010 "Interim Guidance on Considering Environmental Justice During the Development of an Action," EPA defines "environmental justice" as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development,

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15403 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 440 of 492

implementation, and enforcement of environmental laws, regulations, and policies.

To help achieve EPA's goal for Environmental Justice (*i.e.,* the fair treatment and meaningful involvement of all people), EPA places particular emphasis on the public health of and environmental conditions affecting minority, low-income, and indigenous populations. In recognizing that these populations frequently bear a disproportionate burden of environmental harms and risks, EPA works to protect them from adverse public health and environmental effects of its programs. EPA looks at the vulnerabilities of these populations because they have historically been exposed to a combination of physical, chemical, biological, social, and cultural factors that have imposed greater environmental burdens on them than those imposed on the general population.

To promote meaningful involvement, EPA has developed a communication and outreach strategy to ensure that interested communities have access to this final rule, are aware of its content and have an opportunity to comment during the comment period. During the comment period, EPA publicized the rulemaking via environmental newsletters, tribal newsletters, environmental justice listservs, and the Internet, including the OPEI Rulemaking Gateway Web site (*http://yosemite.epa.gov/opei/RuleGate.nsf/*). EPA will also provide general rulemaking fact sheets (*e.g.,* why is this important for my community) for environmental justice community groups and conduct conference calls with interested communities. In addition, state and Federal permitting requirements will provide state and local governments and members of affected communities the opportunity to provide comments on the permit conditions associated with permitting the sources affected by this rulemaking.

J. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 *et seq.,* as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register.** A major rule cannot take effect until 60 days after it is published in the **Federal Register.** This action is not a "major rule" as defined by 5 U.S.C. 804(2). This rule will be effective May 20, 2011.

List of Subjects in 40 CFR Part 60

Environmental protection, Administrative practice and procedure, Air pollution control, Incorporation by reference, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: February 21, 2011.

Lisa Jackson,

Administrator.

For the reasons stated in the preamble, title 40, chapter I, part 60 of the Code of Federal Regulations, is amended as follows:

PART 60—[AMENDED]

■ 1. The authority citation for part 60 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

■ 2. Section 60.17 is amended by:
■ a. Adding paragraph (a)(93);
■ b. Revising paragraph (h)(4); and
■ c. Adding paragraph (o) to read as follows:

§ 60.17 Incorporations by reference.

* * * * *

(a) * * *

(93) ASTM D6784–02 (Reapproved 2008) Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), approved April 1, 2008, IBR approved for §§ 60.2165(j), 60.2730(j), tables 1, 5, 6 and 8 to subpart CCCC, tables 2, 6, 7, and 9 to subpart DDDD, §§ 60.4900(b)(4)(v), 60.5220(b)(4)(v), tables 1 and 2 to subpart LLLL, and tables 2 and 3 to subpart MMMM.

* * * * *

(h) * * *

(4) ANSI/ASME PTC 19.10–1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], IBR approved for § 60.56c(b)(4), § 60.63(f)(2) and (f)(4), § 60.106(e)(2), §§ 60.104a(d)(3), (d)(5), (d)(6), (h)(3), (h)(4), (h)(5), (i)(3), (i)(4), (i)(5), (j)(3), and (j)(4), § 60.105a(d)(4), (f)(2), (f)(4), (g)(2), and (g)(4), § 60.106a(a)(1)(iii), (a)(2)(iii), (a)(2)(v), (a)(2)(viii), (a)(3)(ii), and (a)(3)(v), and § 60.107a(a)(1)(ii), (a)(1)(iv), (a)(2)(ii), (c)(2), (c)(4), and (d)(2), tables 1 and 3 of subpart EEEE, tables 2 and 4 of subpart FFFF, table 2 of subpart JJJJ, §§ 60.4415(a)(2) and (a)(3), 60.2145(s)(1)(i) and (ii), 60.2145(t)(1)(ii), 60.2145(t)(5)(i), 60.2710(s)(1)(i) and (ii), 60.2710(t)(1)(ii), 60.2710(t)(5)(i), 60.2710(w)(3), 60.2730(q)(3), 60.4900(b)(4)(vii) and (viii), 60.4900(b)(5)(i), 60.5220(b)(4)(vii) and (viii), 60.5220(b)(5)(i), tables 1 and 2 to subpart LLLL, and tables 2 and 3 to subpart MMMM.

* * * * *

(o) The following material is available from the U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460, (202) 272–0167, *http://www.epa.gov.*

(1) Office of Air Quality Planning and Standards (OAQPS) Fabric Filter Bag Leak Detection Guidance, EPA–454/R–98–015, September 1997, IBR approved for §§ 60.2145(r)(2), 60.2710(r)(2), 60.4905(b)(3)(i)(B), and 60.5225(b)(3)(i)(B).

(2) [Reserved]

■ 3. Part 60 is amended by adding subparts LLLL and MMMM to read as follows:

Subpart LLLL—Standards of Performance for New Sewage Sludge Incineration Units

Sec.

Introduction

60.4760 What does this subpart do?
60.4765 When does this subpart become effective?

Applicability and Delegation of Authority

60.4770 Does this subpart apply to my sewage sludge incineration unit?
60.4775 What is a new sewage sludge incineration unit?
60.4780 What sewage sludge incineration units are exempt from this subpart?
60.4785 Who implements and enforces this subpart?
60.4790 How are these new source performance standards structured?
60.4795 Do all nine components of these new source performance standards apply at the same time?

Preconstruction Siting Analysis

60.4800 Who must prepare a siting analysis?
60.4805 What is a siting analysis?

Operator Training and Qualification

60.4810 What are the operator training and qualification requirements?
60.4815 When must the operator training course be completed?
60.4820 How do I obtain my operator qualification?
60.4825 How do I maintain my operator qualification?
60.4830 How do I renew my lapsed operator qualification?
60.4835 What if all the qualified operators are temporarily not accessible?
60.4840 What site-specific documentation is required and how often must it be reviewed by qualified operators and plant personnel?

HeinOnline -- 76 Fed. Reg. 15404 2011

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 441 of 492

Emission Limits, Emission Standards, and Operating Limits and Requirements

60.4845 What emission limits and standards must I meet and by when?
60.4850 What operating limits and requirements must I meet and by when?
60.4855 How do I establish operating limits if I do not use a wet scrubber, fabric filter, electrostatic precipitator, or activated carbon injection, or if I limit emissions in some other manner, to comply with the emission limits?
60.4860 Do the emission limits, emission standards, and operating limits apply during periods of startup, shutdown, and malfunction?
60.4861 How do I establish affirmative defense for exceedance of an emission limit or standard during malfunction?

Initial Compliance Requirements

60.4865 How and when do I demonstrate initial compliance with the emission limits and standards?
60.4870 How do I establish my operating limits?
60.4875 By what date must I conduct the initial air pollution control device inspection and make any necessary repairs?
60.4880 How do I develop a site-specific monitoring plan for my continuous monitoring, bag leak detection, and ash handling systems, and by what date must I conduct an initial performance evaluation?

Continuous Compliance Requirements

60.4885 How and when do I demonstrate continuous compliance with the emission limits and standards?
60.4890 How do I demonstrate continuous compliance with my operating limits?
60.4895 By what date must I conduct annual air pollution control device inspections and make any necessary repairs?

Performance Testing, Monitoring, and Calibration Requirements

60.4900 What are the performance testing, monitoring, and calibration requirements for compliance with the emission limits and standards?
60.4905 What are the monitoring and calibration requirements for compliance with my operating limits?

Recordkeeping and Reporting

60.4910 What records must I keep?
60.4915 What reports must I submit?

Title V Operating Permits

60.4920 Am I required to apply for and obtain a Title V operating permit for my unit?
60.4925 When must I submit a title V permit application for my new SSI unit?

Definitions

60.4930 What definitions must I know?

Tables

Table 1 to Subpart LLLL of Part 60—Emission Limits and Standards for Fluidized Bed New Sewage Sludge Incineration Units
Table 2 to Subpart LLLL of Part 60—Emission Limits and Standards for New Multiple Hearth Sewage Sludge Incineration Units
Table 3 to Subpart LLLL of Part 60—Operating Parameters for New Sewage Sludge Incineration Units
Table 4 to Subpart LLLL of Part 60—Toxic Equivalency Factors
Table 5 to Subpart LLLL of Part 60—Summary of Reporting Requirements for New Sewage Sludge Incineration Units

Introduction

§ 60.4760 What does this subpart do?

This subpart establishes new source performance standards for sewage sludge incineration (SSI) units. To the extent any requirement of this subpart is inconsistent with the requirements of subpart A of this part, the requirements of this subpart will apply.

§ 60.4765 When does this subpart become effective?

This subpart takes effect on *September 21, 2011.* Some of the requirements in this subpart apply to planning a SSI unit and must be completed even before construction is initiated on a SSI unit (*i.e.,* the preconstruction requirements in §§ 60.4800 and 60.4805). Other requirements such as the emission limits, emission standards, and operating limits apply after the SSI unit begins operation.

Applicability and Delegation of Authority

§ 60.4770 Does this subpart apply to my sewage sludge incineration unit?

Yes, your SSI unit is an affected source if it meets all the criteria specified in paragraphs (a) through (c) of this section.

(a) Your SSI unit is a SSI unit for which construction commenced after October 14, 2010 or for which modification commenced after September 21, 2011.

(b) Your SSI unit is a SSI unit as defined in § 60.4930.

(c) Your SSI unit is not exempt under § 60.4780.

§ 60.4775 What is a new sewage sludge incineration unit?

(a) A new SSI unit is a SSI unit that meets either of the two criteria specified in paragraph (a)(1) or (a)(2) of this section.

(1) Commenced construction after October 14, 2010.

(2) Commenced modification after September 21, 2011.

(b) Physical or operational changes made to your SSI unit to comply with the emission guidelines in subpart MMMM of this part (Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units) do not qualify as a modification under this subpart.

§ 60.4780 What sewage sludge incineration units are exempt from this subpart?

This subpart exempts combustion units that incinerate sewage sludge and are not located at a wastewater treatment facility designed to treat domestic sewage sludge. These units may be subject to another subpart of this part (*e.g.,* subpart CCCC of this part). The owner or operator of such a combustion unit must notify the Administrator of an exemption claim under this section.

§ 60.4785 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the Administrator, as defined in § 60.2, or a delegated authority such as your state, local, or tribal agency. If the Administrator has delegated authority to your state, local, or tribal agency, then that agency (as well as the Administrator) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if this subpart is delegated to your state, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a state, local, or tribal agency, the authorities contained in paragraph (c) of this section are retained by the Administrator and are not transferred to the state, local, or tribal agency.

(c) The authorities that will not be delegated to state, local, or tribal agencies are specified in paragraphs (c)(1) through (c)(8) of this section.

(1) Approval of alternatives to the emission limits and standards in Tables 1 and 2 to this subpart and operating limits established under § 60.4850.

(2) Approval of major alternatives to test methods.

(3) Approval of major alternatives to monitoring.

(4) Approval of major alternatives to recordkeeping and reporting.

(5) The requirements in § 60.4855.

(6) The requirements in § 60.4835(b)(2).

(7) Performance test and data reduction waivers under § 60.8(b).

(8) Preconstruction siting analysis in § 60.4800 and § 60.4805.

§ 60.4790 How are these new source performance standards structured?

These new source performance standards contain the nine major

HeinOnline -- 76 Fed. Reg. 15405 2011

US EPA ARCHIVE DOCUMENT

components listed in paragraphs (a) through (i) of this section.

(a) Preconstruction siting analysis.

(b) Operator training and qualification.

(c) Emission limits, emission standards, and operating limits.

(d) Initial compliance requirements.

(e) Continuous compliance requirements.

(f) Performance testing, monitoring, and calibration requirements.

(g) Recordkeeping and reporting.

(h) Definitions.

(i) Tables.

§ 60.4795 Do all nine components of these new source performance standards apply at the same time?

No. You must meet the preconstruction siting analysis requirements before you commence construction of the SSI unit. The operator training and qualification, emission limits, emission standards, operating limits, performance testing, and compliance, monitoring, and most recordkeeping and reporting requirements are met after the SSI unit begins operation.

Preconstruction Siting Analysis

§ 60.4800 Who must prepare a siting analysis?

(a) You must prepare a siting analysis if you plan to commence construction of a SSI unit after October 14, 2010.

(b) You must prepare a siting analysis if you are required to submit an initial application for a construction permit under 40 CFR part 51, subpart I, or 40 CFR part 52, as applicable, for the modification of your SSI unit.

§ 60.4805 What is a siting analysis?

(a) The siting analysis must consider air pollution control alternatives that minimize, on a site-specific basis, to the maximum extent practicable, potential risks to public health or the environment, including impacts of the affected SSI unit on ambient air quality, visibility, soils, and vegetation. In considering such alternatives, the analysis may consider costs, energy impacts, nonair environmental impacts, or any other factors related to the practicability of the alternatives.

(b) Analyses of your SSI unit's impacts that are prepared to comply with state, local, or other Federal regulatory requirements may be used to satisfy the requirements of this section, provided they include the consideration of air pollution control alternatives specified in paragraph (a) of this section.

(c) You must complete and submit the siting requirements of this section as required under § 60.4915(a)(3) prior to commencing construction.

Operator Training and Qualification

§ 60.4810 What are the operator training and qualification requirements?

(a) A SSI unit cannot be operated unless a fully trained and qualified SSI unit operator is accessible, either at the facility or can be at the facility within 1 hour. The trained and qualified SSI unit operator may operate the SSI unit directly or be the direct supervisor of one or more other plant personnel who operate the unit. If all qualified SSI unit operators are temporarily not accessible, you must follow the procedures in § 60.4835.

(b) Operator training and qualification must be obtained through a state-approved program or by completing the requirements included in paragraph (c) of this section.

(c) Training must be obtained by completing an incinerator operator training course that includes, at a minimum, the three elements described in paragraphs (c)(1) through (c)(3) of this section.

(1) Training on the 10 subjects listed in paragraphs (c)(1)(i) through (c)(1)(x) of this section.

(i) Environmental concerns, including types of emissions.

(ii) Basic combustion principles, including products of combustion.

(iii) Operation of the specific type of incinerator to be used by the operator, including proper startup, sewage sludge feeding, and shutdown procedures.

(iv) Combustion controls and monitoring.

(v) Operation of air pollution control equipment and factors affecting performance (if applicable).

(vi) Inspection and maintenance of the incinerator and air pollution control devices.

(vii) Actions to prevent malfunctions or to prevent conditions that may lead to malfunctions.

(viii) Bottom and fly ash characteristics and handling procedures.

(ix) Applicable Federal, State, and local regulations, including Occupational Safety and Health Administration workplace standards.

(x) Pollution prevention.

(2) An examination designed and administered by the state-approved program.

(3) Written material covering the training course topics that may serve as reference material following completion of the course.

§ 60.4815 When must the operator training course be completed?

The operator training course must be completed by the later of the two dates specified in paragraphs (a) and (b) of this section.

(a) Six months after your SSI unit startup.

(b) The date before an employee assumes responsibility for operating the SSI unit or assumes responsibility for supervising the operation of the SSI unit.

§ 60.4820 How do I obtain my operator qualification?

(a) You must obtain operator qualification by completing a training course that satisfies the criteria under § 60.4810(b).

(b) Qualification is valid from the date on which the training course is completed and the operator successfully passes the examination required under § 60.4810(c)(2).

§ 60.4825 How do I maintain my operator qualification?

To maintain qualification, you must complete an annual review or refresher course covering, at a minimum, the five topics described in paragraphs (a) through (e) of this section.

(a) Update of regulations.

(b) Incinerator operation, including startup and shutdown procedures, sewage sludge feeding, and ash handling.

(c) Inspection and maintenance.

(d) Prevention of malfunctions or conditions that may lead to malfunction.

(e) Discussion of operating problems encountered by attendees.

§ 60.4830 How do I renew my lapsed operator qualification?

You must renew a lapsed operator qualification before you begin operation of a SSI unit by one of the two methods specified in paragraphs (a) and (b) of this section.

(a) For a lapse of less than 3 years, you must complete a standard annual refresher course described in § 60.4825.

(b) For a lapse of 3 years or more, you must repeat the initial qualification requirements in § 60.4820(a).

§ 60.4835 What if all the qualified operators are temporarily not accessible?

If a qualified operator is not at the facility and cannot be at the facility within 1 hour, you must meet the criteria specified in either paragraph (a) or (b) of this section, depending on the length of time that a qualified operator is not accessible.

(a) When a qualified operator is not accessible for more than 8 hours, the SSI unit may be operated for less than 2 weeks by other plant personnel who are familiar with the operation of the SSI unit and who have completed a review

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15406 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 443 of 492

of the information specified in § 60.4840 within the past 12 months. However, you must record the period when a qualified operator was not accessible and include this deviation in the annual report as specified under § 60.4915(d).

(b) When a qualified operator is not accessible for 2 weeks or more, you must take the two actions that are described in paragraphs (b)(1) and (b)(2) of this section.

(1) Notify the Administrator of this deviation in writing within 10 days. In the notice, state what caused this deviation, what you are doing to ensure that a qualified operator is accessible, and when you anticipate that a qualified operator will be accessible.

(2) Submit a status report to the Administrator every 4 weeks outlining what you are doing to ensure that a qualified operator is accessible, stating when you anticipate that a qualified operator will be accessible, and requesting approval from the Administrator to continue operation of the SSI unit. You must submit the first status report 4 weeks after you notify the Administrator of the deviation under paragraph (b)(1) of this section.

(i) If the Administrator notifies you that your request to continue operation of the SSI unit is disapproved, the SSI unit may continue operation for 30 days, and then must cease operation.

(ii) Operation of the unit may resume if a qualified operator is accessible as required under § 60.4810(a). You must notify the Administrator within 5 days of having resumed operations and of having a qualified operator accessible.

§ 60.4840 What site-specific documentation is required and how often must it be reviewed by qualified operators and plant personnel?

(a) You must maintain at the facility the documentation of the operator training procedures specified under § 60.4910(c)(1) and make the documentation readily accessible to all SSI unit operators.

(b) You must establish a program for reviewing the information listed in § 60.4910(c)(1) with each qualified incinerator operator and other plant personnel who may operate the unit according to the provisions of § 60.4835(a), according to the following schedule:

(1) The initial review of the information listed in § 60.4910(c)(1) must be conducted within 6 months after the effective date of this subpart or prior to an employee's assumption of responsibilities for operation of the SSI unit, whichever date is later.

(2) Subsequent annual reviews of the information listed in § 60.4910(c)(1) must be conducted no later than 12 months following the previous review.

Emission Limits, Emission Standards, and Operating Limits and Requirements

§ 60.4845 What emission limits and standards must I meet and by when?

You must meet the emission limits and standards specified in Table 1 or 2 to this subpart within 60 days after your SSI unit reaches the feed rate at which it will operate or within 180 days after its initial startup, whichever comes first. The emission limits and standards apply at all times the unit is operating, and during periods of malfunction. The emission limits and standards apply to emissions from a bypass stack or vent while sewage sludge is in the combustion chamber (*i.e.,* until the sewage sludge feed to the combustor has been cut off for a period of time not less than the sewage sludge incineration residence time).

§ 60.4850 What operating limits and requirements must I meet and by when?

You must meet, as applicable, the operating limits and requirements specified in paragraphs (a) through (d) and (h) of this section, according to the schedule specified in paragraph (e) of this section. The operating parameters for which you will establish operating limits for a wet scrubber, fabric filter, electrostatic precipitator, or activated carbon injection are listed in Table 3 to this subpart. You must comply with the operating requirements in paragraph (f) of this section and the requirements in paragraph (g) of this section for meeting any new operating limits, re-established in § 60.4890. The operating limits apply at all times that sewage sludge is in the combustion chamber (*i.e.,* until the sewage sludge feed to the combustor has been cut off for a period of time not less than the sewage sludge incineration residence time).

(a) You must meet a site-specific operating limit for minimum operating temperature of the combustion chamber (or afterburner combustion chamber) that you establish in § 60.4890(a)(2)(i).

(b) If you use a wet scrubber, electrostatic precipitator, or activated carbon injection to comply with an emission limit, you must meet the site-specific operating limits that you establish in § 60.4870 for each operating parameter associated with each air pollution control device.

(c) If you use a fabric filter to comply with the emission limits, you must install the bag leak detection system specified in §§ 60.4880(b) and 60.4905(b)(3)(i) and operate the bag leak detection system such that the alarm does not sound more than 5 percent of the operating time during a 6-month period. You must calculate the alarm time as specified in § 60.4870.

(d) You must meet the operating requirements in your site-specific fugitive emission monitoring plan, submitted as specified in § 60.4880(d) to ensure that your ash handling system will meet the emission standard for fugitive emissions from ash handling.

(e) You must meet the operating limits and requirements specified in paragraphs (a) through (d) of this section 60 days after your SSI unit reaches the feed rate at which it will operate, or within 180 days after its initial startup, whichever comes first.

(f) You must monitor the feed rate and moisture content of the sewage sludge fed to the sewage sludge incinerator, as specified in paragraphs (f)(1) and (f)(2) of this section.

(1) Continuously monitor the sewage sludge feed rate and calculate a daily average for all hours of operation during each 24-hour period. Keep a record of the daily average feed rate, as specified in § 60.4910(f)(3)(ii).

(2) Take at least one grab sample per day of the sewage sludge fed to the sewage sludge incinerator. If you take more than one grab sample in a day, calculate the daily average for the grab samples. Keep a record of the daily average moisture content, as specified in § 60.4910(f)(3)(ii).

(g) For the operating limits and requirements specified in paragraphs (a) through (d) and (h) of this section, you must meet any new operating limits and requirements, re-established according to § 60.4890(d).

(h) If you use an air pollution control device other than a wet scrubber, fabric filter, electrostatic precipitator, or activated carbon injection to comply with the emission limits in Table 1 or 2 to this subpart, you must meet any site-specific operating limits or requirements that you establish as required in § 60.4855.

§ 60.4855 How do I establish operating limits if I do not use a wet scrubber, fabric filter, electrostatic precipitator, or activated carbon injection, or if I limit emissions in some other manner, to comply with the emission limits?

If you use an air pollution control device other than a wet scrubber, fabric filter, electrostatic precipitator, or activated carbon injection, or limit emissions in some other manner (*e.g.,* materials balance) to comply with the emission limits in § 60.4845, you must meet the requirements in paragraphs (a) and (b) of this section.

(a) Meet the applicable operating limits and requirements in § 60.4850,

HeinOnline -- 76 Fed. Reg. 15407 2011

US EPA ARCHIVE DOCUMENT

and establish applicable operating limits according to § 60.4870.

(b) Petition the Administrator for specific operating parameters, operating limits, and averaging periods to be established during the initial performance test and to be monitored continuously thereafter.

(1) You are responsible for submitting any supporting information in a timely manner to enable the Administrator to consider the application prior to the performance test. You must not conduct the initial performance test until after the petition has been approved by the Administrator, and you must comply with the operating limits as written, pending approval by the Administrator. Neither submittal of an application, nor the Administrator's failure to approve or disapprove the application relieves you of the responsibility to comply with any provision of this subpart.

(2) Your petition must include the five items listed in paragraphs (b)(2)(i) through (b)(2)(v) of this section.

(i) Identification of the specific parameters you propose to monitor.

(ii) A discussion of the relationship between these parameters and emissions of regulated pollutants, identifying how emissions of regulated pollutants change with changes in these parameters, and how limits on these parameters will serve to limit emissions of regulated pollutants.

(iii) A discussion of how you will establish the upper and/or lower values for these parameters that will establish the operating limits on these parameters, including a discussion of the averaging periods associated with those parameters for determining compliance.

(iv) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments.

(v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

§ 60.4860 Do the emission limits, emission standards, and operating limits apply during periods of startup, shutdown, and malfunction?

The emission limits and standards apply at all times and during periods of malfunction. The operating limits apply at all times that sewage sludge is in the combustion chamber (*i.e.,* until the sewage sludge feed to the combustor has been cut off for a period of time not less than the sewage sludge incineration residence time).

§ 60.4861 How do I establish an affirmative defense for exceedance of an emission limit or standard during malfunction?

In response to an action to enforce the numerical emission standards set forth in paragraph § 60.4845, you may assert an affirmative defense to a claim for civil penalties for exceedances of emission limits that are caused by malfunction, as defined in § 60.2. Appropriate penalties may be assessed, however, if you fail to meet your burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(a) To establish the affirmative defense in any action to enforce such a limit, you must timely meet the notification requirements in paragraph (b) of this section, and must prove by a preponderance of evidence that the conditions in paragraphs (a)(1) through (a)(9) of this section are met.

(1) The excess emissions meet:

(i) Were caused by a sudden, infrequent, and unavoidable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner, and

(ii) Could not have been prevented through careful planning, proper design or better operation and maintenance practices, and

(iii) Did not stem from any activity or event that could have been foreseen and avoided, or planned for, and

(iv) Were not part of a recurring pattern indicative of inadequate design, operation, or maintenance, and (2) Repairs were made as expeditiously as possible when the applicable emission limits were being exceeded. Off-shift and overtime labor were used, to the extent practicable to make these repairs, and

(3) The frequency, amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions, and

(4) If the excess emissions resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage, and

(5) All possible steps were taken to minimize the impact of the excess emissions on ambient air quality, the environment and human health, and

(6) All emissions monitoring and control systems were kept in operation if at all possible consistent with safety and good air pollution control practices, and

(7) All of the actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs, and

(8) At all times, the affected facility was operated in a manner consistent with good practices for minimizing emissions, and

(9) A written root cause analysis has been prepared the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the excess emissions resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction.

(b) The owner or operator of the SSI unit experiencing an exceedance of its emission limit(s) during a malfunction, shall notify the Administrator by telephone or facsimile (fax) transmission as soon as possible, but no later than 2 business days after the initial occurrence of the malfunction, if it wishes to avail itself of an affirmative defense to civil penalties for that malfunction. The owner or operator seeking to assert an affirmative defense shall also submit a written report to the Administrator within 45 days of the initial occurrence of the exceedance of the standard in § 60.4845 to demonstrate, with all necessary supporting documentation, that it has met the requirements set forth in paragraph (a) of this section. The owner or operator may seek an extension of this deadline for up to 30 additional days by submitting a written request to the Administrator before the expiration of the 45 day period. Until a request for an extension has been approved by the Administrator, the owner or operator is subject to the requirement to submit such report within 45 days of the initial occurrence of the exceedance.

Initial Compliance Requirements

§ 60.4865 How and when do I demonstrate initial compliance with the emission limits and standards?

To demonstrate initial compliance with the emission limits and standards in Table 1 or 2 to this subpart, use the procedures specified in paragraph (a) of this section for particulate matter, hydrogen chloride, dioxins/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, lead, and fugitive emissions from ash handling, and follow the procedures specified in paragraph (b) of this section for carbon monoxide. In lieu of using the procedures specified in paragraph (a) of this section, you also have the option to demonstrate initial compliance using the procedures specified in paragraph (b) of this section for particulate matter,

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15408 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 445 of 492

hydrogen chloride, dioxins/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, and lead. You must meet the requirements of paragraphs (a) or (b) of this section, as applicable, and paragraphs (c) and (d) of this section, according to the performance testing, monitoring, and calibration requirements in § 60.4900(a) and (b). Except as provided in paragraph (e) of this section, within 60 days after your SSI unit reaches the feed rate at which it will operate, or within 180 days after its initial startup, whichever comes first, you must demonstrate that your SSI unit meets the emission limits and standards specified in Table 1 or 2 to this subpart.

(a) Demonstrate initial compliance using the performance test required in § 60.8. You must demonstrate that your SSI unit meets the emission limits and standards specified in Table 1 or 2 to this subpart for particulate matter, hydrogen chloride, dioxins/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, lead, and fugitive emissions from ash handling using the performance test. The initial performance test must be conducted using the test methods, averaging methods, and minimum sampling volumes or durations specified in Table 1 or 2 to this subpart and according to the testing, monitoring, and calibration requirements specified in § 60.4900(a).

(b) Demonstrate initial compliance using a continuous emissions monitoring system or continuous automated sampling system. The option to use a continuous emissions monitoring system for hydrogen chloride, dioxins/furans, cadmium, or lead takes effect on the date a final performance specification applicable to hydrogen chloride, dioxins/furans, cadmium, or lead is published in the **Federal Register**. The option to use a continuous automated sampling system for dioxins/furans takes effect on the date a final performance specification for such a continuous automated sampling system is published in the **Federal Register**. Collect data as specified in § 60.4900(b)(6) and use the following procedures:

(1) To demonstrate initial compliance with the carbon monoxide emission limit specified in Table 1 or 2 to this subpart, you must use the carbon monoxide continuous emissions monitoring system specified in § 60.4900(b). For determining compliance with the carbon monoxide concentration limit using carbon monoxide CEMS, the correction to 7 percent oxygen does not apply during periods of startup or shutdown. Use the measured carbon monoxide concentration without correcting for oxygen concentration in averaging with other carbon monoxide concentrations (corrected to 7 percent oxygen) to determine the 24-hour average value.

(2) To demonstrate initial compliance with the emission limits specified in Table 1 or 2 to this subpart for particulate matter, hydrogen chloride, dioxins/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, and lead, you may substitute the use of a continuous monitoring system in lieu of conducting the initial performance test required in paragraph (a) of this section, as follows:

(i) You may substitute the use of a continuous emissions monitoring system for any pollutant specified in paragraph (b)(2) of this section in lieu of conducting the initial performance test for that pollutant in paragraph (a) of this section.

(ii) You may substitute the use of a continuous automated sampling system for mercury or dioxins/furans in lieu of conducting the initial mercury or dioxin/furan performance test in paragraph (a) of this section.

(3) If you use a continuous emissions monitoring system to demonstrate compliance with an applicable emission limit in Table 1 or 2 to this subpart, as described in paragraph (b)(1) or (b)(2) of this section, you must use the continuous emissions monitoring system and follow the requirements specified in § 60.4900(b). You must measure emissions according to § 60.13 to calculate 1-hour arithmetic averages, corrected to 7 percent oxygen (or carbon dioxide). You must demonstrate initial compliance using a 24-hour block average of these 1-hour arithmetic average emission concentrations, calculated using Equation 19–19 in section 12.4.1 of Method 19 of 40 CFR part 60, appendix A–7.

(4) If you use a continuous automated sampling system to demonstrate compliance with an applicable emission limit in Table 1 or 2 to this subpart, as described in paragraph (b)(2) of this section, you must:

(i) Use the continuous automated sampling system specified in § 60.58b(p) and (q), and measure and calculate average emissions corrected to 7 percent oxygen (or carbon dioxide) according to § 60.58b(p) and your monitoring plan.

(A) Use the procedures specified in § 60.58b(p) to calculate 24-hour block averages to determine compliance with the mercury emission limit in Table 1 or 2 to this subpart.

(B) Use the procedures specified in § 60.58b(p) to calculate 2-week block averages to determine compliance with the dioxin/furan (total mass basis or toxic equivalency basis) emission limits in Table 1 or 2 to this subpart.

(ii) Comply with the provisions in § 60.58b(q) to develop a monitoring plan. For mercury continuous automated sampling systems, you must use Performance Specification 12B of appendix B of part 75 and Procedure 5 of appendix F of this part.

(5) Except as provided in paragraph (e) of this section, you must complete your initial performance evaluations required under your monitoring plan for any continuous emissions monitoring system and continuous automated sampling systems according to the provisions of § 60.4880. Your performance evaluation must be conducted using the procedures and acceptance criteria specified in § 60.4880(a)(3).

(c) To demonstrate initial compliance with the dioxins/furans toxic equivalency emission limit in Table 1 or 2 to this subpart, determine dioxins/furans toxic equivalency as follows:

(1) Measure the concentration of each dioxin/furan tetra- through octachlorinated-isomer emitted using Method 23 at 40 CFR part 60, appendix A–7.

(2) Multiply the concentration of each dioxin/furan (tetra- through octa-chlorinated) isomer by its corresponding toxic equivalency factor specified in Table 4 to this subpart.

(3) Sum the products calculated in accordance with paragraph (c)(2) of this section to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

(d) Submit an initial compliance report, as specified in § 60.4915(c).

(e) If you demonstrate initial compliance using the performance test specified in paragraph (a) of this section, then the provisions of this paragraph (e) apply. If a force majeure is about to occur, occurs, or has occurred for which you intend to assert a claim of force majeure, you must notify the Administrator in writing as specified in § 60.4915(g). You must conduct the initial performance test as soon as practicable after the force majeure occurs. The Administrator will determine whether or not to grant the extension to the initial performance test deadline, and will notify you in writing of approval or disapproval of the request for an extension as soon as practicable. Until an extension of the performance test deadline has been approved by the Administrator, you remain strictly subject to the requirements of this subpart.

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§ 60.4870 How do I establish my operating limits?

(a) You must establish the site-specific operating limits specified in paragraphs (b) through (h) of this section or established in § 60.4855, as applicable, during your initial performance tests required in § 60.4865. You must meet the requirements in § 60.4890(d) to confirm these operating limits or re-establish new operating limits using operating data recorded during any performance tests or performance evaluations required in § 60.4885. You must follow the data measurement and recording frequencies and data averaging times specified in Table 3 to this subpart or as established in § 60.4855, and you must follow the testing, monitoring, and calibration requirements specified in §§ 60.4900 and 60.4905 or established in § 60.4855. You are not required to establish operating limits for the operating parameters listed in Table 3 to this subpart for a control device if you use a continuous monitoring system to demonstrate compliance with the emission limits in Table 1 or 2 to this subpart for the applicable pollutants, as follows:

(1) For a scrubber designed to control emissions of hydrogen chloride or sulfur dioxide, you are not required to establish an operating limit and monitor, scrubber liquid flow rate or scrubber liquid pH if you use the continuous monitoring system specified in §§ 60.4865(b) and 60.4885(b) to demonstrate compliance with the emission limit for hydrogen chloride or sulfur dioxide.

(2) For a scrubber designed to control emissions of particulate matter, cadmium, and lead, you are not required to establish an operating limit and monitor pressure drop across the scrubber or scrubber liquid flow rate if you use the continuous monitoring system specified in §§ 60.4865(b) and 60.4885(b) to demonstrate compliance with the emission limit for particulate matter, cadmium, and lead.

(3) For an electrostatic precipitator designed to control emissions of particulate matter, cadmium, and lead, you are not required to establish an operating limit and monitor secondary voltage of the collection plates, secondary amperage of the collection plates, or effluent water flow rate at the outlet of the electrostatic precipitator if you use the continuous monitoring system specified in §§ 60.4865(b) and 60.4885(b) to demonstrate compliance with the emission limit for particulate matter, cadmium, and lead.

(4) For an activated carbon injection system designed to control emissions of mercury, you are not required to establish an operating limit and monitor sorbent injection rate and carrier gas flow rate (or carrier gas pressure drop) if you use the continuous monitoring system specified in §§ 60.4865(b) and 60.4885(b) to demonstrate compliance with the emission limit for mercury.

(5) For an activated carbon injection system designed to control emissions of dioxins/furans, you are not required to establish an operating limit and monitor sorbent injection rate and carrier gas flow rate (or carrier gas pressure drop) if you use the continuous monitoring system specified in §§ 60.4865(b) and 60.4885(b) to demonstrate compliance with the emission limit for dioxins/furans (total mass basis or toxic equivalency basis).

(b) Minimum pressure drop across each wet scrubber used to meet the particulate matter, lead, and cadmium emission limits in Table 1 or 2 to this subpart, equal to the lowest 4-hour average pressure drop across each such wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter, lead, and cadmium emission limits.

(c) Minimum scrubber liquid flow rate (measured at the inlet to each wet scrubber), equal to the lowest 4-hour average liquid flow rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.

(d) Minimum scrubber liquid pH for each wet scrubber used to meet the sulfur dioxide or hydrogen chloride emission limits in Table 1 or 2 to this subpart, equal to the lowest 1-hour average scrubber liquid pH measured during the most recent performance test demonstrating compliance with the sulfur dioxide and hydrogen chloride emission limits.

(e) Minimum combustion chamber operating temperature (or minimum afterburner temperature), equal to the lowest 4-hour average combustion chamber operating temperature (or afterburner temperature) measured during the most recent performance test demonstrating compliance with all applicable emission limits.

(f) Minimum power input to the electrostatic precipitator collection plates, equal to the lowest 4-hour average power measured during the most recent performance test demonstrating compliance with the particulate matter, lead, and cadmium emission limits. Power input must be calculated as the product of the secondary voltage and secondary amperage to the electrostatic precipitator collection plates. Both the secondary voltage and secondary amperage must be recorded during the performance test.

(g) Minimum effluent water flow rate at the outlet of the electrostatic precipitator, equal to the lowest 4-hour average effluent water flow rate at the outlet of the electrostatic precipitator measured during the most recent performance test demonstrating compliance with the particulate matter, lead, and cadmium emission limits.

(h) For activated carbon injection, establish the site-specific operating limits specified in paragraphs (h)(1) through (h)(3) of this section.

(1) Minimum mercury sorbent injection rate, equal to the lowest 4-hour average mercury sorbent injection rate measured during the most recent performance test demonstrating compliance with the mercury emission limit.

(2) Minimum dioxin/furan sorbent injection rate, equal to the lowest 4-hour average dioxin/furan sorbent injection rate measured during the most recent performance test demonstrating compliance with the dioxin/furan (total mass basis or toxic equivalency basis) emission limit.

(3) Minimum carrier gas flow rate or minimum carrier gas pressure drop, as follows:

(i) Minimum carrier gas flow rate, equal to the lowest 4-hour average carrier gas flow rate measured during the most recent performance test demonstrating compliance with the applicable emission limit.

(ii) Minimum carrier gas pressure drop, equal to the lowest 4-hour average carrier gas flow rate measured during the most recent performance test demonstrating compliance with the applicable emission limit.

§ 60.4875 By what date must I conduct the initial air pollution control device inspection and make any necessary repairs?

(a) You must conduct an air pollution control device inspection according to § 60.4900(c) within 60 days of installing an air pollution control device or within 180 days of startup of the SSI unit using the air pollution control device, whichever comes first.

(b) Within 10 operating days following the air pollution control device inspection under paragraph (a) of this section, all necessary repairs must be completed unless you obtain written approval from the Administrator establishing a date whereby all necessary repairs of the SSI unit must be completed.

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15410 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 447 of 492

US EPA ARCHIVE DOCUMENT

§ 60.4880 How do I develop a site-specific monitoring plan for my continuous monitoring, bag leak detection, and ash handling systems, and by what date must I conduct an initial performance evaluation?

You must develop and submit to the Administrator for approval a site-specific monitoring plan for each continuous monitoring system required under this subpart, according to the requirements in paragraphs (a) through (d) of this section. This requirement also applies to you if you petition the Administrator for alternative monitoring parameters under § 60.13(i) and paragraph (e) of this section. If you use a continuous automated sampling system to comply with the mercury or dioxin/furan (total mass basis or toxic equivalency basis) emission limit, you must develop your monitoring plan as specified in § 60.58b(q), and you are not required to meet the requirements in paragraphs (a) and (b) of this section. You must also submit a site-specific monitoring plan for your ash handling system, as specified in paragraph (d) of this section. You must submit and update your monitoring plans as specified in paragraphs (f) through (h) of this section.

(a) For each continuous monitoring system, your monitoring plan must address the elements and requirements specified in paragraphs (a)(1) through (a)(8) of this section. You must operate and maintain the continuous monitoring system in continuous operation according to the site-specific monitoring plan.

(1) Installation of the continuous monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (*e.g.*, on or downstream of the last control device).

(2) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer and the data collection and reduction systems.

(3) Performance evaluation procedures and acceptance criteria (*e.g.*, calibrations).

(i) For continuous emissions monitoring systems, your performance evaluation and acceptance criteria must include, but is not limited to, the following:

(A) The applicable requirements for continuous emissions monitoring systems specified in § 60.13.

(B) The applicable performance specifications (*e.g.*, relative accuracy tests) in appendix B of this part.

(C) The applicable procedures (*e.g.*, quarterly accuracy determinations and daily calibration drift tests) in appendix F of this part.

(D) A discussion of how the occurrence and duration of out-of-control periods will affect the suitability of CEMS data, where out-of-control has the meaning given in section (a)(7)(i) of this section.

(ii) For continuous parameter monitoring systems, your performance evaluation and acceptance criteria must include, but is not limited to the following:

(A) If you have an operating limit that requires the use of a flow monitoring system, you must meet the requirements in paragraphs (a)(3)(ii)(A)(*1*) through (*4*) of this section.

(*1*) Install the flow sensor and other necessary equipment in a position that provides a representative flow.

(*2*) Use a flow sensor with a measurement sensitivity of no greater than 2 percent of the expected process flow rate.

(*3*) Minimize the effects of swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(*4*) Conduct a flow monitoring system performance evaluation in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(B) If you have an operating limit that requires the use of a pressure monitoring system, you must meet the requirements in paragraphs (a)(3)(ii)(B)(*1*) through (*6*) of this section.

(*1*) Install the pressure sensor(s) in a position that provides a representative measurement of the pressure (*e.g.*, particulate matter scrubber pressure drop).

(*2*) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(*3*) Use a pressure sensor with a minimum tolerance of 1.27 centimeters of water or a minimum tolerance of 1 percent of the pressure monitoring system operating range, whichever is less.

(*4*) Perform checks at least once each process operating day to ensure pressure measurements are not obstructed (*e.g.*, check for pressure tap pluggage daily).

(*5*) Conduct a performance evaluation of the pressure monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(*6*) If at any time the measured pressure exceeds the manufacturer's specified maximum operating pressure range, conduct a performance evaluation of the pressure monitoring system in accordance with your monitoring plan and confirm that the pressure monitoring system continues to meet the performance requirements in your monitoring plan. Alternatively, install and verify the operation of a new pressure sensor.

(C) If you have an operating limit that requires a pH monitoring system, you must meet the requirements in paragraphs (a)(3)(ii)(C)(*1*) through (*4*) of this section.

(*1*) Install the pH sensor in a position that provides a representative measurement of scrubber effluent pH.

(*2*) Ensure the sample is properly mixed and representative of the fluid to be measured.

(*3*) Conduct a performance evaluation of the pH monitoring system in accordance with your monitoring plan at least once each process operating day.

(*4*) Conduct a performance evaluation (including a two-point calibration with one of the two buffer solutions having a pH within 1 of the pH of the operating limit) of the pH monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than quarterly.

(D) If you have an operating limit that requires the use of a temperature measurement device, you must meet the requirements in paragraphs (a)(3)(ii)(D)(*1*) through (*4*) of this section.

(*1*) Install the temperature sensor and other necessary equipment in a position that provides a representative temperature.

(*2*) Use a temperature sensor with a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit), or 1.0 percent of the temperature value, whichever is larger, for a noncryogenic temperature range.

(*3*) Use a temperature sensor with a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit), or 2.5 percent of the temperature value, whichever is larger, for a cryogenic temperature range.

(*4*) Conduct a temperature measurement device performance evaluation at the time of each performance test but no less frequently than annually.

(E) If you have an operating limit that requires a secondary electric power monitoring system for an electrostatic precipitator, you must meet the requirements in paragraphs (a)(3)(ii)(E)(*1*) and (*2*) of this section.

(*1*) Install sensors to measure (secondary) voltage and current to the electrostatic precipitator collection plates.

(*2*) Conduct a performance evaluation of the electric power monitoring system in accordance with your monitoring plan at the time of each performance

HeinOnline -- 76 Fed. Reg. 15411 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 448 of 492

test but no less frequently than annually.

(F) If you have an operating limit that requires the use of a monitoring system to measure sorbent injection rate (*e.g.,* weigh belt, weigh hopper, or hopper flow measurement device), you must meet the requirements in paragraphs (a)(3)(ii)(F)(*1*) and (*2*) of this section.

(*1*) Install the system in a position(s) that provides a representative measurement of the total sorbent injection rate.

(*2*) Conduct a performance evaluation of the sorbent injection rate monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(4) Ongoing operation and maintenance procedures in accordance with the general requirements of § 60.11(d).

(5) Ongoing data quality assurance procedures in accordance with the general requirements of § 60.13.

(6) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 60.7(b), (c), (c)(1), (c)(4), (d), (e), (f) and (g).

(7) Provisions for periods when the continuous monitoring system is out of control, as follows:

(i) A continuous monitoring system is out of control if the conditions of paragraph (a)(7)(i)(A) or (a)(7)(i)(B) of this section are met.

(A) The zero (low-level), mid-level (if applicable), or high-level calibration drift exceeds two times the applicable calibration drift specification in the applicable performance specification or in the relevant standard.

(B) The continuous monitoring system fails a performance test audit (*e.g.,* cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit.

(ii) When the continuous monitoring system is out of control as specified in paragraph (a)(7)(i) of this section, you must take the necessary corrective action and must repeat all necessary tests that indicate that the system is out of control. You must take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour you conduct a performance check (*e.g.,* calibration drift) that indicates an exceedance of the performance requirements established under this part. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits.

(8) Schedule for conducting initial and periodic performance evaluations.

(b) If a bag leak detection system is used, your monitoring plan must include a description of the following items:

(1) Installation of the bag leak detection system in accordance with paragraphs (b)(1)(i) and (ii) of this section.

(i) Install the bag leak detection sensor(s) in a position(s) that will be representative of the relative or absolute particulate matter loadings for each exhaust stack, roof vent, or compartment (*e.g.,* for a positive pressure fabric filter) of the fabric filter.

(ii) Use a bag leak detection system certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

(2) Initial and periodic adjustment of the bag leak detection system, including how the alarm set-point will be established. Use a bag leak detection system equipped with a system that will sound an alarm when the system detects an increase in relative particulate matter emissions over a preset level. The alarm must be located where it is observed readily and any alert is detected and recognized easily by plant operating personnel.

(3) Evaluations of the performance of the bag leak detection system, performed in accordance with your monitoring plan and consistent with the guidance provided in Fabric Filter Bag Leak Detection Guidance, EPA–454/R–98–015, September 1997 (incorporated by reference, see § 60.17).

(4) Operation of the bag leak detection system, including quality assurance procedures.

(5) Maintenance of the bag leak detection system, including a routine maintenance schedule and spare parts inventory list.

(6) Recordkeeping (including record retention) of the bag leak detection system data. Use a bag leak detection system equipped with a device to continuously record the output signal from the sensor.

(c) You must conduct an initial performance evaluation of each continuous monitoring system and bag leak detection system, as applicable, in accordance with your monitoring plan and § 60.13(c). For the purposes of this subpart, the provisions of § 60.13(c) also apply to the bag leak detection system. You must conduct the initial performance evaluation of each continuous monitoring system within 60 days of installation of the monitoring system.

(d) You must submit a monitoring plan specifying the ash handling system operating procedures that you will follow to ensure that you meet the fugitive emissions limit specified in Table 1 or 2 to this subpart.

(e) You may submit an application to the Administrator for approval of alternate monitoring requirements to demonstrate compliance with the standards of this subpart, subject to the provisions of paragraphs (e)(1) through (e)(6) of this section.

(1) The Administrator will not approve averaging periods other than those specified in this section, unless you document, using data or information, that the longer averaging period will ensure that emissions do not exceed levels achieved over the duration of three performance test runs.

(2) If the application to use an alternate monitoring requirement is approved, you must continue to use the original monitoring requirement until approval is received to use another monitoring requirement.

(3) You must submit the application for approval of alternate monitoring requirements no later than the notification of performance test. The application must contain the information specified in paragraphs (e)(3)(i) through (e)(3)(iii) of this section:

(i) Data or information justifying the request, such as the technical or economic infeasibility, or the impracticality of using the required approach.

(ii) A description of the proposed alternative monitoring requirement, including the operating parameter to be monitored, the monitoring approach and technique, the averaging period for the limit, and how the limit is to be calculated.

(iii) Data or information documenting that the alternative monitoring requirement would provide equivalent or better assurance of compliance with the relevant emission standard.

(4) The Administrator will notify you of the approval or denial of the application within 90 calendar days after receipt of the original request, or within 60 calendar days of the receipt of any supplementary information, whichever is later. The Administrator will not approve an alternate monitoring application unless it would provide equivalent or better assurance of compliance with the relevant emission standard. Before disapproving any alternate monitoring application, the Administrator will provide the following:

(i) Notice of the information and findings upon which the intended disapproval is based.

HeinOnline -- 76 Fed. Reg. 15412 2011

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 449 of 492

(ii) Notice of opportunity for you to present additional supporting information before final action is taken on the application. This notice will specify how much additional time is allowed for you to provide additional supporting information.

(5) You are responsible for submitting any supporting information in a timely manner to enable the Administrator to consider the application prior to the performance test. Neither submittal of an application, nor the Administrator's failure to approve or disapprove the application relieves you of the responsibility to comply with any provision of this subpart.

(6) The Administrator may decide at any time, on a case-by-case basis, that additional or alternative operating limits, or alternative approaches to establishing operating limits, are necessary to demonstrate compliance with the emission standards of this subpart.

(f) You must submit your monitoring plans required in paragraphs (a) and (b) of this section at least 60 days before your initial performance evaluation of your continuous monitoring system(s).

(g) You must submit your monitoring plan for your ash handling system, as required in paragraph (d) of this section, at least 60 days before your initial compliance test date.

(h) You must update and resubmit your monitoring plan if there are any changes or potential changes in your monitoring procedures or if there is a process change, as defined in § 60.4930.

Continuous Compliance Requirements

§ 60.4885 How and when do I demonstrate continuous compliance with the emission limits and standards?

To demonstrate continuous compliance with the emission limits and standards specified in Table 1 or 2 to this subpart, use the procedures specified in paragraph (a) of this section for particulate matter, hydrogen chloride, dioxins/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, lead, and fugitive emissions from ash handling, and follow the procedures specified in paragraph (b) of this section for carbon monoxide. In lieu of using the procedures specified in paragraph (a) of this section, you also have the option to demonstrate continuous compliance using the procedures specified in paragraph (b) of this section for particulate matter, hydrogen chloride, dioxins/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, and lead. You must meet the requirements of paragraphs (a) and (b) of this section, as applicable, and paragraphs (c) through (e) of this section, according to the performance testing, monitoring, and calibration requirements in § 60.4900(a) and (b). You may also petition the Administrator for alternative monitoring parameters as specified in paragraph (f) of this section.

(a) Demonstrate continuous compliance using a performance test. Except as provided in paragraphs (a)(3) and (e) of this section, following the date that the initial performance test for each pollutant in Table 1 or 2 to this subpart except carbon monoxide is completed, you must conduct a performance test for each such pollutant on an annual basis (between 11 and 13 calendar months following the previous performance test). The performance test must be conducted using the test methods, averaging methods, and minimum sampling volumes or durations specified in Table 1 or 2 to this subpart and according to the testing, monitoring, and calibration requirements specified in § 60.4900(a).

(1) You may conduct a repeat performance test at any time to establish new values for the operating limits to apply from that point forward. The Administrator may request a repeat performance test at any time.

(2) You must repeat the performance test within 60 days of a process change, as defined in § 60.4930.

(3) Except as specified in paragraphs (a)(1) and (2) of this section, you can conduct performance tests less often for a given pollutant, as specified in paragraphs (a)(3)(i) through (iii) of this section.

(i) You can conduct performance tests less often if your performance tests for the pollutant for at least 2 consecutive years show that your emissions are at or below 75 percent of the emission limit specified in Table 2 or 3 to this subpart, and there are no changes in the operation of the affected source or air pollution control equipment that could increase emissions. In this case, you do not have to conduct a performance test for that pollutant for the next 2 years. You must conduct a performance test during the third year and no more than 37 months after the previous performance test.

(ii) If your SSI unit continues to meet the emission limit for the pollutant, you may choose to conduct performance tests for the pollutant every third year if your emissions are at or below 75 percent of the emission limit, and if there are no changes in the operation of the affected source or air pollution control equipment that could increase emissions, but each such performance test must be conducted no more than 37 months after the previous performance test.

(iii) If a performance test shows emissions exceeded 75 percent of the emission limit for a pollutant, you must conduct annual performance tests for that pollutant until all performance tests over 2 consecutive years show compliance.

(b) Demonstrate continuous compliance using a continuous emissions monitoring system or continuous automated sampling system. The option to use a continuous emissions monitoring system for hydrogen chloride, dioxins/furans, cadmium, or lead takes effect on the date a final performance specification applicable to hydrogen chloride, dioxins/furans, cadmium, or lead is published in the **Federal Register**. The option to use a continuous automated sampling system for dioxins/furans takes effect on the date a final performance specification for such a continuous automated sampling system is published in the **Federal Register**. Collect data as specified in § 60.4900(b)(6) and use the following procedures:

(1) To demonstrate continuous compliance with the carbon monoxide emission limit, you must use the carbon monoxide continuous emissions monitoring system specified in § 60.4900(b). For determining compliance with the carbon monoxide concentration limit using carbon monoxide CEMS, the correction to 7 percent oxygen does not apply during periods of startup or shutdown. Use the measured carbon monoxide concentration without correcting for oxygen concentration in averaging with other carbon monoxide concentrations (corrected to 7 percent oxygen) to determine the 24-hour average value.

(2) To demonstrate continuous compliance with the emission limits for particulate matter, hydrogen chloride, dioxins/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, and lead, you may substitute the use of a continuous monitoring system in lieu of conducting the annual performance test required in paragraph (a) of this section, as follows:

(i) You may substitute the use of a continuous emissions monitoring system for any pollutant specified in paragraph (b)(2) of this section in lieu of conducting the annual performance test for that pollutant in paragraph (a) of this section.

(ii) You may substitute the use of a continuous automated sampling system for mercury or dioxins/furans in lieu of

HeinOnline -- 76 Fed. Reg. 15413 2011

US EPA ARCHIVE DOCUMENT

conducting the annual mercury or dioxin/furan performance test in paragraph (a) of this section.

(3) If you use a continuous emissions monitoring system to demonstrate compliance with an applicable emission limit in either paragraph (b)(1) or (b)(2) of this section, you must use the continuous emissions monitoring system and follow the requirements specified in § 60.4900(b). You must measure emissions according to § 60.13 to calculate 1-hour arithmetic averages, corrected to 7 percent oxygen (or carbon dioxide). You must demonstrate initial compliance using a 24-hour block average of these 1-hour arithmetic average emission concentrations, calculated using Equation 19–19 in section 12.4.1 of Method 19 of 40 CFR part 60, appendix A–7.

(4) If you use a continuous automated sampling system to demonstrate compliance with an applicable emission limit in paragraph (b)(2) of this section, you must:

(i) Use the continuous automated sampling system specified in § 60.58b(p) and (q), and measure and calculate average emissions corrected to 7 percent oxygen (or carbon dioxide) according to § 60.58b(p) and your monitoring plan.

(A) Use the procedures specified in § 60.58b(p) to calculate 24-hour averages to determine compliance with the mercury emission limit in Table 1 or 2 to this subpart.

(B) Use the procedures specified in § 60.58b(p) to calculate 2-week averages to determine compliance with the dioxin/furan emission limit (total mass basis or toxic equivalency basis) in Table 1 or 2 to this subpart.

(ii) Update your monitoring plan as specified in § 60.4880(e). For mercury continuous automated sampling systems, you must use Performance Specification 12B of appendix B of part 75 and Procedure 5 of appendix F of this part.

(5) Except as provided in paragraph (e) of this section, you must complete your periodic performance evaluations required under your monitoring plan for any continuous emissions monitoring system and continuous automated sampling systems, according to the schedule specified in your monitoring plan. If you were previously determining compliance by conducting an annual performance test (or according to the less frequent testing for a pollutant as provided in paragraph (a)(3) of this section), you must complete the initial performance evaluation required in your monitoring plan in § 60.4880 for the continuous monitoring system prior to using the continuous emissions monitoring system to demonstrate compliance or continuous automated sampling system. Your performance evaluation must be conducted using the procedures and acceptance criteria specified in § 60.4880(a)(3).

(c) To demonstrate compliance with the dioxins/furans toxic equivalency emission limit in paragraph (a) or (b) of this section, you must determine dioxins/furans toxic equivalency as follows:

(1) Measure the concentration of each dioxin/furan tetra- through octa-chlorinated isomer emitted using EPA Method 23.

(2) For each dioxin/furan (tetra- through octa-chlorinated) isomer measured in accordance with paragraph (c)(1) of this section, multiply the isomer concentration by its corresponding toxic equivalency factor specified in Table 4 to this subpart.

(3) Sum the products calculated in accordance with paragraph (c)(2) of this section to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

(d) You must submit the annual compliance report specified in § 60.4915(d). You must submit the deviation report specified in § 60.4915(e) for each instance that you did not meet each emission limit in Table 1 or 2 to this subpart.

(e) If you demonstrate continuous compliance using a performance test, as specified in paragraph (a) of this section, then the provisions of this paragraph (e) apply. If a force majeure is about to occur, occurs, or has occurred for which you intend to assert a claim of force majeure, you must notify the Administrator in writing as specified in § 60.4915(g). You must conduct the performance test as soon as practicable after the force majeure occurs. The Administrator will determine whether or not to grant the extension to the performance test deadline, and will notify you in writing of approval or disapproval of the request for an extension as soon as practicable. Until an extension of the performance test deadline has been approved by the Administrator, you remain strictly subject to the requirements of this subpart.

(f) After any initial requests in § 60.4880 for alternative monitoring requirements for initial compliance, you may subsequently petition the Administrator for alternative monitoring parameters as specified in §§ 60.13(i) and 60.4880(e).

§ 60.4890 How do I demonstrate continuous compliance with my operating limits?

You must continuously monitor your operating parameters as specified in paragraph (a) of this section and meet the requirements of paragraphs (b) and (c) of this section, according to the monitoring and calibration requirements in § 60.4905. You must confirm and re-establish your operating limits as specified in paragraph (d) of this section.

(a) You must continuously monitor the operating parameters specified in paragraphs (a)(1) and (a)(2) of this section using the continuous monitoring equipment and according to the procedures specified in § 60.4905 or established in § 60.4855. To determine compliance, you must use the data averaging period specified in Table 3 to this subpart (except for alarm time of the baghouse leak detection system) unless a different averaging period is established under § 60.4855.

(1) You must demonstrate that the SSI unit meets the operating limits established according to §§ 60.4855 and 60.4870 and paragraph (d) of this section for each applicable operating parameter.

(2) You must demonstrate that the SSI unit meets the operating limit for bag leak detection systems as follows:

(i) For a bag leak detection system, you must calculate the alarm time as follows:

(A) If inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted.

(B) If corrective action is required, each alarm time shall be counted as a minimum of 1 hour.

(C) If you take longer than 1 hour to initiate corrective action, each alarm time (*i.e.,* time that the alarm sounds) is counted as the actual amount of time taken by you to initiate corrective action.

(ii) Your maximum alarm time is equal to 5 percent of the operating time during a 6-month period, as specified in § 60.4850(c).

(b) Operation above the established maximum, below the established minimum, or outside the allowable range of the operating limits specified in paragraph (a) of this section constitutes a deviation from your operating limits established under this subpart, except during performance tests conducted to determine compliance with the emission and operating limits or to establish new operating limits. You must submit the deviation report specified in § 60.4915(e) for each instance that you did not meet one of

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15414 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 451 of 492

your operating limits established under this subpart.

(c) You must submit the annual compliance report specified in § 60.4915(d) to demonstrate continuous compliance.

(d) You must confirm your operating limits according to paragraph (d)(1) of this section or re-establish operating limits according to paragraph (d)(2) of this section. Your operating limits must be established so as to assure ongoing compliance with the emission limits. These requirements also apply to your operating requirements in your fugitive emissions monitoring plan specified in § 60.4850(d).

(1) Your operating limits must be based on operating data recorded during any performance test required in § 60.4885(a) or any performance evaluation required in § 60.4885(b)(5).

(2) You may conduct a repeat performance test at any time to establish new values for the operating limits to apply from that point forward.

§ 60.4895 By what date must I conduct annual air pollution control device inspections and make any necessary repairs?

(a) You must conduct an annual inspection of each air pollution control device used to comply with the emission limits, according to § 60.4900(c), no later than 12 months following the previous annual air pollution control device inspection.

(b) Within 10 operating days following an air pollution control device inspection, all necessary repairs must be completed unless you obtain written approval from the Administrator establishing a date whereby all necessary repairs of the affected SSI unit must be completed.

Performance Testing, Monitoring, and Calibration Requirements

§ 60.4900 What are the performance testing, monitoring, and calibration requirements for compliance with the emission limits and standards?

You must meet, as applicable, the performance testing requirements specified in paragraph (a) of this section, the monitoring requirements specified in paragraph (b) of this section, the air pollution control device inspections requirements specified in paragraph (c) of this section, and the bypass stack provisions specified in paragraph (d) of this section.

(a) *Performance testing requirements.*

(1) All performance tests must consist of a minimum of three test runs conducted under conditions representative of normal operations, as specified in § 60.8(c). Emissions in excess of the emission limits or standards during periods of startup, shutdown, and malfunction are considered deviations from the applicable emission limits or standards.

(2) You must document that the dry sludge burned during the performance test is representative of the sludge burned under normal operating conditions by:

(i) Maintaining a log of the quantity of sewage sludge burned during the performance test by continuously monitoring and recording the average hourly rate that sewage sludge is fed to the incinerator.

(ii) Maintaining a log of the moisture content of the sewage sludge burned during the performance test by taking grab samples of the sewage sludge fed to the incinerator for each 8 hour period that testing is conducted.

(3) All performance tests must be conducted using the test methods, minimum sampling volume, observation period, and averaging methods specified in Table 1 or 2 to this subpart.

(4) Method 1 at 40 CFR part 60, appendix A–1 must be used to select the sampling location and number of traverse points.

(5) Method 3A or 3B at 40 CFR part 60, appendix A–2 must be used for gas composition analysis, including measurement of oxygen concentration. Method 3A or 3B at 40 CFR part 60, appendix A–2 must be used simultaneously with each method.

(6) All pollutant concentrations must be adjusted to 7 percent oxygen using Equation 1 of this section:

$$C_{adj} = C_{meas}(20.9-7)/(20.9-\%O_2) \quad \text{(Eq. 1)}$$

Where:

C_{adj} = Pollutant concentration adjusted to 7 percent oxygen.

C_{meas} = Pollutant concentration measured on a dry basis.

(20.9–7) = 20.9 percent oxygen – 7 percent oxygen (defined oxygen correction basis).

20.9 = Oxygen concentration in air, percent.

$\%O_2$ = Oxygen concentration measured on a dry basis, percent.

(7) Performance tests must be conducted and data reduced in accordance with the test methods and procedures contained in this subpart unless the Administrator does one of the following.

(i) Specifies or approves, in specific cases, the use of a method with minor changes in methodology.

(ii) Approves the use of an equivalent method.

(iii) Approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance.

(iv) Waives the requirement for performance tests because you have demonstrated by other means to the Administrator's satisfaction that the affected SSI unit is in compliance with the standard.

(v) Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph is construed to abrogate the Administrator's authority to require testing under section 114 of the Clean Air Act.

(8) You must provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, *etc.*) in conducting the scheduled performance test, you must notify the Administrator as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator by mutual agreement.

(9) You must provide, or cause to be provided, performance testing facilities as follows:

(i) Sampling ports adequate for the test methods applicable to the SSI unit, as follows:

(A) Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures.

(B) Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

(ii) Safe sampling platform(s).

(iii) Safe access to sampling platform(s).

(iv) Utilities for sampling and testing equipment.

HeinOnline -- 76 Fed. Reg. 15415 2011

US EPA ARCHIVE DOCUMENT

(10) Unless otherwise specified in this subpart, each performance test must consist of three separate runs using the applicable test method. Each run must be conducted for the time and under the conditions specified in the applicable standard. Compliance with each emission limit must be determined by calculating the arithmetic mean of the three runs. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond your control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

(11) During each test run specified in paragraph (a)(1) of this section, you must operate your sewage sludge incinerator at a minimum of 85 percent of your maximum permitted capacity.

(b) *Continuous monitor requirements.* You must meet the following requirements, as applicable, when using a continuous monitoring system to demonstrate compliance with the emission limits in Table 1 or 2 to this subpart. The option to use a continuous emissions monitoring system for hydrogen chloride, dioxins/furans, cadmium, or lead takes effect on the date a final performance specification applicable to hydrogen chloride, dioxins/furans, cadmium, or lead is published in the **Federal Register**. If you elect to use a continuous emissions monitoring system instead of conducting annual performance testing, you must meet the requirements of paragraphs (b)(1) through (b)(6) of this section. If you elect to use a continuous automated sampling system instead of conducting annual performance testing, you must meet the requirements of paragraph (b)(7) of this section. The option to use a continuous automated sampling system for dioxins/furans takes effect on the date a final performance specification for such a continuous automated sampling system is published in the **Federal Register**.

(1) You must notify the Administrator one month before starting use of the continuous monitoring system.

(2) You must notify the Administrator one month before stopping use of the continuous monitoring system, in which case you must also conduct a performance test prior to ceasing operation of the system.

(3) You must install, operate, calibrate, and maintain an instrument for continuously measuring and recording the emissions to the atmosphere in accordance with the following:

(i) Section 60.13 of subpart A of this part.

(ii) The following performance specifications of appendix B of this part, as applicable:

(A) For particulate matter, Performance Specification 11 of appendix B of this part.

(B) For hydrogen chloride, Performance Specification 15 of appendix B of this part.

(C) For carbon monoxide, Performance Specification 4B of appendix B of this part with the modifications shown in Tables 1 and 2 to this subpart.

(D) [Reserved]

(E) For mercury, Performance Specification 12A of appendix B of this part.

(F) For nitrogen oxides, Performance Specification 2 of appendix B of this part.

(G) For sulfur dioxide, Performance Specification 2 of appendix B of this part.

(iii) For continuous emissions monitoring systems, the quality assurance procedures (*e.g.,* quarterly accuracy determinations and daily calibration drift tests) of appendix F of this part specified in paragraphs (b)(3)(iii)(A) through (b)(3)(iii)(G) of this section. For each pollutant, the span value of the continuous emissions monitoring system is two times the applicable emission limit, expressed as a concentration.

(A) For particulate matter, Procedure 2 in appendix F of this part.

(B) For hydrogen chloride, Procedure 1 in appendix F of this part except that the Relative Accuracy Test Audit requirements of Procedure 1 shall be replaced with the validation requirements and criteria of sections 11.1.1 and 12.0 of Performance Specification 15 of appendix B of this part.

(C) For carbon monoxide, Procedure 1 in appendix F of this part.

(D) [Reserved]

(E) For mercury, Procedures 5 in appendix F of this part.

(F) For nitrogen oxides, Procedure 1 in appendix F of this part.

(G) For sulfur dioxide, Procedure 1 in appendix F of this part.

(iv) If your monitoring system has a malfunction or out-of-control period, you must complete repairs and resume operation of your monitoring system as expeditiously as possible.

(4) During each relative accuracy test run of the continuous emissions monitoring system using the performance specifications in paragraph (b)(3)(ii) of this section, emission data for each regulated pollutant and oxygen (or carbon dioxide as established in paragraph (b)(5) of this section) must be collected concurrently (or within a 30- to 60-minute period) by both the continuous emissions monitoring systems and the test methods specified in paragraphs (b)(4)(i) through (b)(4)(viii) of this section. Relative accuracy testing must be at representative operating conditions while the SSI unit is charging sewage sludge.

(i) For particulate matter, Method 5 at 40 CFR part 60, appendix A–3 or Method 26A or 29 at 40 CFR part 60, appendix A–8 shall be used.

(ii) For hydrogen chloride, Method 26 or 26A at 40 CFR part 60, appendix A–8, shall be used as specified in Tables 2 and 3 to this subpart.

(iii) For carbon monoxide, Method 10, 10A, or 10B at 40 CFR part 60, appendix A–4, shall be used.

(iv) For dioxins/furans, Method 23 at 40 CFR part 60, appendix A–7, shall be used.

(v) For mercury, cadmium, and lead, Method 29 at 40 CFR part 60, appendix A–8 shall be used. Alternatively for mercury, Method 30B at 40 CFR part 60, appendix A–8 or ASTM D6784–02 (Reapproved 2008) (incorporated by reference, see § 60.17), may be used.

(vi) For nitrogen oxides, Method 7 or 7E at 40 CFR part 60, appendix A–4, shall be used.

(vii) For sulfur dioxide, Method 6 or 6C at 40 CFR part 60, appendix A–4, or as an alternative ANSI/ASME PTC 19.10–1981 (incorporated by reference, see § 60.17) must be used. For sources that have actual inlet emissions less than 100 parts per million dry volume, the relative accuracy criterion for inlet sulfur dioxide continuous emissions monitoring system should be no greater than 20 percent of the mean value of the method test data in terms of the units of the emission standard, or 5 parts per million dry volume absolute value of the mean difference between the method and the continuous emissions monitoring system, whichever is greater.

(viii) For oxygen (or carbon dioxide as established in (b)(5) of this section), Method 3A or 3B at 40 CFR part 60, appendix A–2, or as an alternative ANSI/ASME PTC 19.10–1981 (incorporated by reference, see § 60.17), as applicable, must be used.

(5) You may request that compliance with the emission limits be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. If carbon dioxide is selected for use in diluent corrections, the relationship between oxygen and carbon

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15416 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 453 of 492

dioxide levels must be established during the initial performance test according to the procedures and methods specified in paragraphs (b)(5)(i) through (b)(5)(iv) of this section. This relationship may be re-established during subsequent performance tests.

(i) The fuel factor equation in Method 3B at 40 CFR part 60, appendix A–2 must be used to determine the relationship between oxygen and carbon dioxide at a sampling location. Method 3A or 3B at 50 CFR part 60, appendix A–2, or as an alternative ANSI/ASME PTC 19.10–1981 (incorporated by reference, see § 60.17), as applicable, must be used to determine the oxygen concentration at the same location as the carbon dioxide monitor.

(ii) Samples must be taken for at least 30 minutes in each hour.

(iii) Each sample must represent a 1-hour average.

(iv) A minimum of three runs must be performed.

(6) You must operate the continuous monitoring system and collect data with the continuous monitoring system as follows:

(i) You must collect data using the continuous monitoring system at all times the affected SSI unit is operating and at the intervals specified in paragraph (b)(6)(ii) of this section, except for periods of monitoring system malfunctions that occur during periods specified in § 60.4880(a)(7)(i), repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments). Any such periods that you do not collect data using the continuous monitoring system constitute a deviation from the monitoring requirements and must be reported in a deviation report.

(ii) You must collect continuous emissions monitoring system data in accordance with § 60.13(e)(2).

(iii) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities conducted during monitoring system malfunctions must not be included in calculations used to report emissions or operating levels. Any such periods must be reported in a deviation report.

(iv) Any data collected during periods when the monitoring system is out of control as specified in § 60.4880(a)(7)(i), repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or control activities conducted during out-of-control periods must not be included in calculations used to report emissions or operating levels. Any such periods that do not coincide with a monitoring system malfunction constitute a deviation from the monitoring requirements and must be reported in a deviation report.

(v) You must use all the data collected during all periods except those periods specified in paragraphs (b)(6)(iii) and (b)(6)(iv) of this section in assessing the operation of the control device and associated control system.

(7) If you elect to use a continuous automated sampling system instead of conducting annual performance testing, you must:

(i) Install, calibrate, maintain, and operate a continuous automated sampling system according to the site-specific monitoring plan developed in § 60.58b(p)(1) through (p)(6), (p)(9), (p)(10), and (q).

(ii) Collect data according to § 60.58b(p)(5) and paragraph (b)(6) of this section.

(c) *Air pollution control device inspections.* You must conduct air pollution control device inspections that include, at a minimum, the following:

(1) Inspect air pollution control device(s) for proper operation.

(2) Generally observe that the equipment is maintained in good operating condition.

(3) Develop a site-specific monitoring plan according to the requirements in § 60.4880. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under § 60.13(i).

(d) *Bypass stack.* Use of the bypass stack at any time that sewage sludge is being charged to the SSI unit is an emissions standards deviation for all pollutants listed in Table 1 or 2 to this subpart. The use of the bypass stack during a performance test invalidates the performance test.

§ 60.4905 What are the monitoring and calibration requirements for compliance with my operating limits?

(a) You must install, operate, calibrate, and maintain the continuous parameter monitoring systems according to the requirements in paragraphs (a)(1) and (2) of this section.

(1) Meet the following general requirements for flow, pressure, pH, and operating temperature measurement devices:

(i) You must collect data using the continuous monitoring system at all times the affected SSI unit is operating and at the intervals specified in paragraph (a)(1)(ii) of this section, except for periods of monitoring system malfunctions that occur during periods specified in § 60.4880(a)(7)(i), repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments). Any such periods that you do not collect data using the continuous monitoring system constitute a deviation from the monitoring requirements and must be reported in a deviation report.

(ii) You must collect continuous parameter monitoring system data in accordance with § 60.13(e)(2).

(iii) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities conducted during monitoring system malfunctions must not be included in calculations used to report emissions or operating levels. Any such periods must be reported in your annual deviation report.

(iv) Any data collected during periods when the monitoring system is out of control as specified in § 60.4880(a)(7)(i), repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or control activities conducted during out-of-control periods must not be included in calculations used to report emissions or operating levels. Any such periods that do not coincide with a monitoring system malfunction, as defined in § 60.4930, constitute a deviation from the monitoring requirements and must be reported in a deviation report.

(v) You must use all the data collected during all periods except those periods specified in paragraphs (a)(1)(iii) and (a)(1)(iv) of this section in assessing the operation of the control device and associated control system.

(vi) Record the results of each inspection, calibration, and validation check.

(2) Operate and maintain your continuous monitoring system according to your monitoring plan required under § 60.4880. Additionally:

(i) For carrier gas flow rate monitors (for activated carbon injection), during the performance test conducted pursuant to § 60.4885, you must demonstrate that the system is maintained within +/−5 percent accuracy, according to the procedures in appendix A to part 75 of this chapter.

(ii) For carrier gas pressure drop monitors (for activated carbon

HeinOnline -- 76 Fed. Reg. 15417 2011

US EPA ARCHIVE DOCUMENT

injection), during the performance test conducted pursuant to § 60.4885, you must demonstrate that the system is maintained within +/−5 percent accuracy.

(b) You must operate and maintain your bag leak detection system in continuous operation according to your monitoring plan required under § 60.4880. Additionally:

(1) For positive pressure fabric filter systems that do not duct all compartments of cells to a common stack, a bag leak detection system must be installed in each baghouse compartment or cell.

(2) Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.

(3) You must initiate procedures to determine the cause of every alarm within 8 hours of the alarm, and you must alleviate the cause of the alarm within 24 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:

(i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in particulate matter emissions.

(ii) Sealing off defective bags or filter media.

(iii) Replacing defective bags or filter media or otherwise repairing the control device.

(iv) Sealing off a defective fabric filter compartment.

(v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system.

(vi) Shutting down the process producing the particulate matter emissions.

(c) You must operate and maintain the continuous parameter monitoring systems specified in paragraphs (a) and (b) of this section in continuous operation according to your monitoring plan required under § 60.4880.

(d) If your SSI unit has a bypass stack, you must install, calibrate (to manufacturers' specifications), maintain, and operate a device or method for measuring the use of the bypass stack including date, time, and duration.

Recordkeeping and Reporting

§ 60.4910 What records must I keep?

You must maintain the items (as applicable) specified in paragraphs (a) through (n) of this section for a period of at least 5 years. All records must be available on site in either paper copy or computer-readable format that can be printed upon request, unless an alternative format is approved by the Administrator.

(a) *Date.* Calendar date of each record.

(b) *Siting.* All documentation produced as a result of the siting requirements of §§ 60.4800 and 60.4805.

(c) *Operator Training.* Documentation of the operator training procedures and records specified in paragraphs (c)(1) through (c)(4) of this section. You must make available and readily accessible at the facility at all times for all SSI unit operators the documentation specified in paragraph (c)(1) of this section.

(1) Documentation of the following operator training procedures and information:

(i) Summary of the applicable standards under this subpart.

(ii) Procedures for receiving, handling, and feeding sewage sludge.

(iii) Incinerator startup, shutdown, and malfunction preventative and corrective procedures.

(iv) Procedures for maintaining proper combustion air supply levels.

(v) Procedures for operating the incinerator and associated air pollution control systems within the standards established under this subpart.

(vi) Monitoring procedures for demonstrating compliance with the incinerator operating limits.

(vii) Reporting and recordkeeping procedures.

(viii) Procedures for handling ash.

(ix) A list of the materials burned during the performance test, if in addition to sewage sludge.

(x) For each qualified operator and other plant personnel who may operate the unit according to the provisions of § 60.4835(a), the phone and/or pager number at which they can be reached during operating hours.

(2) Records showing the names of SSI unit operators and other plant personnel who may operate the unit according to the provisions of § 60.4835(a), as follows:

(i) Records showing the names of SSI unit operators and other plant personnel who have completed review of the information in paragraph (c)(1) of this section as required by § 60.4840(b), including the date of the initial review and all subsequent annual reviews.

(ii) Records showing the names of the SSI operators who have completed the operator training requirements under § 60.4810, met the criteria for qualification under § 60.4820, and maintained or renewed their qualification under § 60.4825 or § 60.4830. Records must include documentation of training, including the dates of their initial qualification and all subsequent renewals of such qualifications.

(3) Records showing the periods when no qualified operators were accessible for more than 8 hours, but less than 2 weeks, as required in § 60.4835(a).

(4) Records showing the periods when no qualified operators were accessible for 2 weeks or more along with copies of reports submitted as required in § 60.4835(b).

(d) *Air pollution control device inspections.* Records of the results of initial and annual air pollution control device inspections conducted as specified in §§ 60.4875 and 60.4900(c), including any required maintenance and any repairs not completed within 10 days of an inspection or the timeframe established by the Administrator.

(e) *Performance test reports.*

(1) The results of the initial, annual, and any subsequent performance tests conducted to determine compliance with the emission limits and standards and/or to establish operating limits, as applicable.

(2) Retain a copy of the complete performance test report, including calculations.

(3) Keep a record of the hourly dry sludge feed rate measured during performance test runs, as specified in § 60.4900(a)(2)(i).

(4) Keep any necessary records to demonstrate that the performance test was conducted under conditions representative of normal operations, including a record of the moisture content measured as required in § 60.4900(a)(2)(ii) for each grab sample taken of the sewage sludge burned during the performance test.

(f) *Continuous monitoring data.* Records of the following data, as applicable:

(1) For continuous emissions monitoring systems, all 1-hour average concentrations of particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans total mass basis, mercury, nitrogen oxides, sulfur dioxide, cadmium, and lead emissions.

(2) For continuous automated sampling systems, all average concentrations measured for mercury and dioxins/furans total mass basis at the frequencies specified in your monitoring plan.

(3) For continuous parameter monitoring systems:

(i) All 1-hour average values recorded for the following operating parameters, as applicable:

(A) Combustion chamber operating temperature (or afterburner temperature).

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15418 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 455 of 492

(B) If a wet scrubber is used to comply with the rule, pressure drop across each wet scrubber system, liquid flow rate to each wet scrubber used to comply with the emission limit in Table 1 or 2 to this subpart for particulate matter, cadmium, or lead, and scrubber liquid flow rate and scrubber liquid pH for each wet scrubber used to comply with an emission limit in Table 1 or 2 to this subpart for sulfur dioxide or hydrogen chloride.

(C) If an electrostatic precipitator is used to comply with the rule, secondary voltage and secondary amperage of the electrostatic precipitator collection plates, and effluent water flow rate at the outlet of the wet electrostatic precipitator.

(D) If activated carbon injection is used to comply with the rule, sorbent flow rate and carrier gas flow rate or pressure drop, as applicable.

(ii) All daily average values recorded for the feed rate and moisture content of the sewage sludge fed to the sewage sludge incinerator, monitored and calculated as specified in § 60.4850(f).

(iii) If a fabric filter is used to comply with the rule, the date, time, and duration of each alarm and the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken. You must also record the percent of operating time during each 6-month period that the alarm sounds, calculated as specified in § 60.4890.

(iv) For other control devices for which you must establish operating limits under § 60.4855, you must maintain data collected for all operating parameters used to determine compliance with the operating limits, at the frequencies specified in your monitoring plan.

(g) *Other records for continuous monitoring systems.* You must keep the following records, as applicable:

(1) Keep records of any notifications to the Administrator in § 60.4915(h)(1) of starting or stopping use of a continuous monitoring system for determining compliance with any emissions limit.

(2) Keep records of any requests under § 60.4900(b)(5) that compliance with the emission limits be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen.

(3) If activated carbon injection is used to comply with the rule, the type of sorbent used and any changes in the type of sorbent used.

(h) *Deviation Reports.* Records of any deviation reports submitted under § 60.4915(e) and (f).

(i) *Equipment specifications and operation and maintenance requirements.* Equipment specifications and related operation and maintenance requirements received from vendors for the incinerator, emission controls, and monitoring equipment.

(j) *Inspections, calibrations, and validation checks of monitoring devices.* Records of inspections, calibrations, and validations checks of any monitoring devices as required under §§ 60.4900 and 60.4905.

(k) *Monitoring plan and performance evaluations for continuous monitoring systems.* Records of the monitoring plans required under § 60.4880, and records of performance evaluations required under § 60.4885(b)(5).

(l) *Less frequent testing.* If, consistent with 60.4885(a)(3), you elect to conduct performance tests less frequently than annually, you must keep annual records that document that your emissions in the 2 previous consecutive years were at or below 75 percent of the applicable emission limit in Table 1 or 2 to this subpart, and document that there were no changes in source operations or air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past 2 years.

(m) *Use of bypass stack.* Records indicating use of the bypass stack, including dates, times, and durations as required under § 60.4905(d).

(n) If a malfunction occurs, you must keep a record of the information submitted in your annual report in § 60.4915(d)(16).

§ 60.4915 What reports must I submit?

You must submit the reports specified in paragraphs (a) through (j) of this section. See Table 5 to this subpart for a summary of these reports.

(a) *Notification of construction.* You must submit a notification prior to commencing construction that includes the four items listed in paragraphs (a)(1) through (a)(4) of this section:

(1) A statement of intent to construct.

(2) The anticipated date of commencement of construction.

(3) All documentation produced as a result of the siting requirements of § 60.4805.

(4) Anticipated date of initial startup.

(b) *Notification of initial startup.* You must submit the information specified in paragraphs (b)(1) through (b)(5) of this section prior to initial startup:

(1) The maximum design dry sludge burning capacity.

(2) The anticipated and permitted maximum dry sludge feed rate.

(3) If applicable, the petition for site-specific operating limits specified in § 60.4855.

(4) The anticipated date of initial startup.

(5) The site-specific monitoring plan required under § 60.4880, at least 60 days before your initial performance evaluation of your continuous monitoring system.

(6) The site-specific monitoring plan for your ash handling system required under § 60.4880, at least 60 days before your initial performance test to demonstrate compliance with your fugitive ash emission limit.

(c) *Initial compliance report.* You must submit the following information no later than 60 days following the initial performance test.

(1) Company name, physical address, and mailing address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report.

(4) The complete test report for the initial performance test results obtained by using the test methods specified in Table 1 or 2 to this subpart.

(5) If an initial performance evaluation of a continuous monitoring system was conducted, the results of that initial performance evaluation.

(6) The values for the site-specific operating limits established pursuant to §§ 60.4850 and 60.4855 and the calculations and methods, as applicable, used to establish each operating limit.

(7) If you are using a fabric filter to comply with the emission limits, documentation that a bag leak detection system has been installed and is being operated, calibrated, and maintained as required by § 60.4850(b).

(8) The results of the initial air pollution control device inspection required in § 60.4875, including a description of repairs.

(d) *Annual compliance report.* You must submit an annual compliance report that includes the items listed in paragraphs (d)(1) through (d)(16) of this section for the reporting period specified in paragraph (d)(3) of this section. You must submit your first annual compliance report no later than 12 months following the submission of the initial compliance report in paragraph (c) of this section. You must submit subsequent annual compliance reports no more than 12 months following the previous annual compliance report. (You may be required to submit these reports (or additional compliance information) more frequently by the title V operating permit required in § 60.4920.)

(1) Company name, physical address, and mailing address.

(2) Statement by a responsible official, with that official's name, title, and

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15419 2011

signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If a performance test was conducted during the reporting period, the results of that performance test.

(i) If operating limits were established during the performance test, include the value for each operating limit and, as applicable, the method used to establish each operating limit, including calculations.

(ii) If activated carbon is used during the performance test, include the type of activated carbon used.

(5) For each pollutant and operating parameter recorded using a continuous monitoring system, the highest average value and lowest average value recorded during the reporting period, as follows:

(i) For continuous emission monitoring systems and continuous automated sampling systems, report the highest and lowest 24-hour average emission value.

(ii) For continuous parameter monitoring systems, report the following values:

(A) For all operating parameters except scrubber liquid pH, the highest and lowest 12-hour average values.

(B) For scrubber liquid pH, the highest and lowest 3-hour average values.

(6) If there are no deviations during the reporting period from any emission limit, emission standard, or operating limit that applies to you, a statement that there were no deviations from the emission limits, emission standard, or operating limits.

(7) Information for bag leak detection systems recorded under § 60.4910(f)(3)(iii).

(8) If a performance evaluation of a continuous monitoring system was conducted, the results of that performance evaluation. If new operating limits were established during the performance evaluation, include your calculations for establishing those operating limits.

(9) If you elect to conduct performance tests less frequently as allowed in § 60.4885(a)(3) and did not conduct a performance test during the reporting period, you must include the dates of the last two performance tests, a comparison of the emission level you achieved in the last two performance tests to the 75 percent emission limit threshold specified in § 60.4885(a)(3), and a statement as to whether there have been any process changes and whether the process change resulted in an increase in emissions.

(10) Documentation of periods when all qualified SSI unit operators were unavailable for more than 8 hours, but less than 2 weeks.

(11) Results of annual air pollution control device inspections recorded under § 60.4910(d) for the reporting period, including a description of repairs.

(12) If there were no periods during the reporting period when your continuous monitoring systems had a malfunction, a statement that there were no periods during which your continuous monitoring systems had a malfunction.

(13) If there were no periods during the reporting period when a continuous monitoring system was out of control, a statement that there were no periods during which your continuous monitoring system was out of control.

(14) If there were no operator training deviations, a statement that there were no such deviations during the reporting period.

(15) If you did not make revisions to your site-specific monitoring plan during the reporting period, a statement that you did not make any revisions to your site-specific monitoring plan during the reporting period. If you made revisions to your site-specific monitoring plan during the reporting period, a copy of the revised plan.

(16) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction that occurred during the reporting period and that caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 60.11(d), including actions taken to correct a malfunction.

(e) *Deviation reports.*

(1) You must submit a deviation report if:

(i) Any recorded operating parameter level, based on the averaging time specified in Table 3 to this subpart, is above the maximum operating limit or below the minimum operating limit established under this subpart.

(ii) The bag leak detection system alarm sounds for more than 5 percent of the operating time for the 6-month reporting period.

(iii) Any recorded 24-hour block average emissions level is above the emission limit, if a continuous monitoring system is used to comply with an emission limit.

(iv) There are visible emissions of combustion ash from an ash conveying system for more than 5 percent of the hourly observation period.

(v) A performance test was conducted that deviated from any emission limit in Table 1 or 2 to this subpart.

(vi) A continuous monitoring system was out of control.

(vii) You had a malfunction (*e.g.*, continuous monitoring system malfunction) that caused or may have caused any applicable emission limit to be exceeded.

(2) The deviation report must be submitted by August 1 of that year for data collected during the first half of the calendar year (January 1 to June 30), and by February 1 of the following year for data you collected during the second half of the calendar year (July 1 to December 31).

(3) For each deviation where you are using a continuous monitoring system to comply with an associated emission limit or operating limit, report the items described in paragraphs (e)(3)(i) through (e)(3)(viii) of this section.

(i) Company name, physical address, and mailing address.

(ii) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(iii) The calendar dates and times your unit deviated from the emission limits, emission standards, or operating limits requirements.

(iv) The averaged and recorded data for those dates.

(v) Duration and cause of each deviation from the following:

(A) Emission limits, emission standards, operating limits, and your corrective actions.

(B) Bypass events and your corrective actions.

(vi) Dates, times, and causes for monitor downtime incidents.

(vii) A copy of the operating parameter monitoring data during each deviation and any test report that documents the emission levels.

(viii) If there were periods during which the continuous monitoring system malfunctioned or was out of control, you must include the following information for each deviation from an emission limit or operating limit:

(A) The date and time that each malfunction started and stopped.

(B) The date, time, and duration that each continuous monitoring system was inoperative, except for zero (low-level) and high-level checks.

(C) The date, time, and duration that each continuous monitoring system was out of control, including start and end dates and hours and descriptions of corrective actions taken.

(D) The date and time that each deviation started and stopped, and

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15420 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 457 of 492

whether each deviation occurred during a period of malfunction, during a period when the system as out of control, or during another period.

(E) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(F) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(G) A summary of the total duration of continuous monitoring system downtime during the reporting period, and the total duration of continuous monitoring system downtime as a percent of the total operating time of the SSI unit at which the continuous monitoring system downtime occurred during that reporting period.

(H) An identification of each parameter and pollutant that was monitored at the SSI unit.

(I) A brief description of the SSI unit.

(J) A brief description of the continuous monitoring system.

(K) The date of the latest continuous monitoring system certification or audit.

(L) A description of any changes in continuous monitoring system, processes, or controls since the last reporting period.

(4) For each deviation where you are not using a continuous monitoring system to comply with the associated emission limit or operating limit, report the following items:

(i) Company name, physical address, and mailing address.

(ii) Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report.

(iii) The total operating time of each affected SSI during the reporting period.

(iv) The calendar dates and times your unit deviated from the emission limits, emission standards, or operating limits requirements.

(v) The averaged and recorded data for those dates.

(vi) Duration and cause of each deviation from the following:

(A) Emission limits, emission standard, and operating limits, and your corrective actions.

(B) Bypass events and your corrective actions.

(vii) A copy of any performance test report that showed a deviation from the emission limits or standard.

(viii) A brief description of any malfunction reported in paragraph (e)(1)(vii) of this section, including a description of actions taken during the malfunction to minimize emissions in accordance with 60.11(d) and to correct the malfunction.

(f) *Qualified operator deviation.*

(1) If all qualified operators are not accessible for 2 weeks or more, you must take the two actions in paragraphs (f)(1)(i) and (f)(1)(ii) of this section.

(i) Submit a notification of the deviation within 10 days that includes the three items in paragraphs (f)(1)(i)(A) through (f)(1)(i)(C) of this section.

(A) A statement of what caused the deviation.

(B) A description of actions taken to ensure that a qualified operator is accessible.

(C) The date when you anticipate that a qualified operator will be available.

(ii) Submit a status report to the Administrator every 4 weeks that includes the three items in paragraphs (f)(1)(ii)(A) through (f)(1)(ii)(C) of this section.

(A) A description of actions taken to ensure that a qualified operator is accessible.

(B) The date when you anticipate that a qualified operator will be accessible.

(C) Request for approval from the Administrator to continue operation of the SSI unit.

(2) If your unit was shut down by the Administrator, under the provisions of § 60.4835(b)(2)(i), due to a failure to provide an accessible qualified operator, you must notify the Administrator within 5 days of meeting § 60.4835(b)(2)(ii) that you are resuming operation.

(g) *Notification of a force majeure.* If a force majeure is about to occur, occurs, or has occurred for which you intend to assert a claim of force majeure:

(1) You must notify the Administrator, in writing as soon as practicable following the date you first knew, or through due diligence should have known that the event may cause or caused a delay in conducting a performance test beyond the regulatory deadline, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification must occur as soon as practicable.

(2) You must provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in conducting the performance test beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which you propose to conduct the performance test.

(h) *Other notifications and reports required.* You must submit other notifications as provided by § 60.7 and as follows:

(1) You must notify the Administrator 1 month before starting or stopping use of a continuous monitoring system for determining compliance with any emission limit.

(2) You must notify the Administrator at least 30 days prior to any performance test conducted to comply with the provisions of this subpart, to afford the Administrator the opportunity to have an observer present.

(3) As specified in § 60.4900(a)(8), you must notify the Administrator at least 7 days prior to the date of a rescheduled performance test for which notification was previously made in paragraph (h)(2) of this section.

(i) *Report submission form.*

(1) Submit initial, annual, and deviation reports electronically or in paper format, postmarked on or before the submittal due dates.

(2) As of January 1, 2012 and within 60 days after the date of completing each performance test, as defined in § 63.2, conducted to demonstrate compliance with this subpart, you must submit relative accuracy test audit (*i.e.,* reference method) data and performance test (*i.e.,* compliance test) data, except opacity data, electronically to EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) (*see http://www.epa.gov/ttn/chief/ert/ert_tool.html/*) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database.

(j) *Changing report dates.* If the Administrator agrees, you may change the semi-annual or annual reporting dates. See § 60.19(c) for procedures to seek approval to change your reporting date.

Title V Operating Permits

§ 60.4920 Am I required to apply for and obtain a title V operating permit for my unit?

Yes, if you are subject to this subpart, you are required to apply for and obtain a Title **V** operating permit unless you meet the relevant requirements for an exemption specified in § 60.4780.

§ 60.4925 When must I submit a title V permit application for my new SSI unit?

(a) If your new SSI unit subject to this subpart is not subject to an earlier permit application deadline, a complete Title **V** permit application must be submitted on or before one of the dates specified in paragraph (a)(1) or (a)(2) of

HeinOnline -- 76 Fed. Reg. 15421 2011

US EPA ARCHIVE DOCUMENT

this section. (*See* section 503(c) of the Clean Air Act and 40 CFR 70.5(a)(1)(i) and 40 CFR 71.5(a)(1)(i)).

(1) For a SSI unit that commenced operation as a new SSI unit as of March 21, 2011, then a complete title V permit application must be submitted not later than March 21, 2012.

(2) For a SSI unit that does not commence operation as a new SSI unit until after March 21, 2011, then a complete title V permit application must be submitted not later than 12 months after the date the unit commences operation as a new source.

(b) If your new SSI unit subject to this subpart is subject to title V as a result of some triggering requirement(s) other than this subpart (for example, a unit subject to this subpart may be a major source or part of a major source), then your unit may be required to apply for a title V permit prior to the deadlines specified in paragraph (a) of this section. If more than one requirement triggers a source's obligation to apply for a title V permit, the 12-month timeframe for filing a title V permit application is triggered by the requirement that first causes the source to be subject to title V. (See section 503(c) of the Clean Air Act and 40 CFR 70.3(a) and (b), 40 CFR 70.5(a)(1)(i), 40 CFR 71.3(a) and (b), and 40 CFR 71.5(a)(1)(i).)

(c) A "complete" title V permit application is one that has been determined or deemed complete by the relevant permitting authority under section 503(d) of the Clean Air Act and 40 CFR 70.5(a)(2) or 40 CFR 71.5(a)(2). You must submit a complete permit application by the relevant application deadline in order to operate after this date in compliance with Federal law. (See sections 503(d) and 502(a) of the Clean Air Act and 40 CFR 70.7(b) and 40 CFR 71.7(b).)

Definitions

§ 60.4930 What definitions must I know?

Terms used but not defined in this subpart are defined in the Clean Air Act and § 60.2.

Affected source means a sewage sludge incineration unit as defined in § 60.4930.

Affirmative defense means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

Auxiliary fuel means natural gas, liquefied petroleum gas, fuel oil, or diesel fuel.

Bag leak detection system means an instrument that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter (*i.e.,* baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.

Bypass stack means a device used for discharging combustion gases to avoid severe damage to the air pollution control device or other equipment.

Calendar year means 365 consecutive days starting on January 1 and ending on December 31.

Continuous automated sampling system means the total equipment and procedures for automated sample collection and sample recovery/analysis to determine a pollutant concentration or emission rate by collecting a single integrated sample(s) or multiple integrated sample(s) of the pollutant (or diluent gas) for subsequent on- or off-site analysis; integrated sample(s) collected are representative of the emissions for the sample time as specified by the applicable requirement.

Continuous emissions monitoring system means a monitoring system for continuously measuring and recording the emissions of a pollutant from an affected facility.

Continuous monitoring system (CMS) means a continuous emissions monitoring system, continuous automated sampling system, continuous parameter monitoring system, or other manual or automatic monitoring that is used for demonstrating compliance with an applicable regulation on a continuous basis as defined by this subpart. The term refers to the total equipment used to sample and condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters.

Continuous parameter monitoring system means a monitoring system for continuously measuring and recording operating conditions associated with air pollution control device systems (*e.g.,* operating temperature, pressure, and power).

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limit, operating limit, or operator qualification and accessibility requirements.

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit.

Dioxins/furans means tetra- through octachlorinated dibenzo-p-dioxins and dibenzofurans.

Electrostatic precipitator or wet electrostatic precipitator means an air pollution control device that uses both electrical forces and, if applicable, water to remove pollutants in the exit gas from a sewage sludge incinerator stack.

Existing sewage sludge incineration unit means a sewage sludge incineration unit the construction of which is commenced on or before October 14, 2010.

Fabric filter means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse.

Fluidized bed incinerator means an enclosed device in which organic matter and inorganic matter in sewage sludge are combusted in a bed of particles suspended in the combustion chamber gas.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused, in part, by poor maintenance or careless operation are not malfunctions.

Modification means a change to an existing SSI unit later than September 21, 2011 and that meets one of two criteria:

(1) The cumulative cost of the changes over the life of the unit exceeds 50 percent of the original cost of building and installing the SSI unit (not including the cost of land) updated to current costs (current dollars). To determine what systems are within the boundary of the SSI unit used to calculate these costs, see the definition of SSI unit.

(2) Any physical change in the SSI unit or change in the method of operating it that increases the amount of any air pollutant emitted for which section 129 or section 111 of the Clean Air Act has established standards.

Modified sewage sludge incineration (SSI) unit means an existing SSI unit that undergoes a modification, as defined in this section.

Multiple hearth incinerator means a circular steel furnace that contains a number of solid refractory hearths and a central rotating shaft; rabble arms that are designed to slowly rake the sludge on the hearth are attached to the rotating shaft. Dewatered sludge enters at the top and proceeds downward through the

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15422 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 459 of 492

furnace from hearth to hearth, pushed along by the rabble arms.

New sewage sludge incineration unit means a SSI unit the construction of which is commenced after October 14, 2010 which would be applicable to such unit or a modified solid waste incineration unit.

Operating day means a 24-hour period between 12:00 midnight and the following midnight during which any amount of sewage sludge is combusted at any time in the SSI unit.

Particulate matter means filterable particulate matter emitted from SSI units as measured by Method 5 at 40 CFR part 60, appendix A–3 or Methods 26A or 29 at 40 CFR part 60, appendix A–8.

Power input to the electrostatic precipitator means the product of the test-run average secondary voltage and the test-run average secondary amperage to the electrostatic precipitator collection plates.

Process change means a significant permit revision, but only with respect to those pollutant-specific emission units for which the proposed permit revision is applicable, including but not limited to:

(1) A change in the process employed at the wastewater treatment facility associated with the affected SSI unit (*e.g.,* the addition of tertiary treatment at the facility, which changes the method used for disposing of process solids and processing of the sludge prior to incineration).

(2) A change in the air pollution control devices used to comply with the emission limits for the affected SSI unit (*e.g.,* change in the sorbent used for activated carbon injection).

Sewage sludge means solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incineration unit or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works.

Sewage sludge feed rate means the rate at which sewage sludge is fed into the incinerator unit.

Sewage sludge incineration (SSI) unit means an incineration unit combusting sewage sludge for the purpose of reducing the volume of the sewage sludge by removing combustible matter. Sewage sludge incineration unit designs include fluidized bed and multiple hearth. A SSI unit also includes, but is not limited to, the sewage sludge feed system, auxiliary fuel feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The SSI unit includes all ash handling systems connected to the bottom ash handling system. The combustion unit bottom ash system ends at the truck loading station or similar equipment that transfers the ash to final disposal. The SSI unit does not include air pollution control equipment or the stack.

Shutdown means the period of time after all sewage sludge has been combusted in the primary chamber.

Solid waste means any garbage, refuse, sewage sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1342), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2014).

Standard conditions, when referring to units of measure, means a temperature of 68 °F (20 °C) and a pressure of 1 atmosphere (101.3 kilopascals).

Startup means the period of time between the activation, including the firing of fuels (*e.g.,* natural gas or distillate oil), of the system and the first feed to the unit.

Toxic equivalency means the product of the concentration of an individual dioxin isomer in an environmental mixture and the corresponding estimate of the compound-specific toxicity relative to tetrachlorinated dibenzo-p-dioxin, referred to as the toxic equivalency factor for that compound. Table 4 to this subpart lists the toxic equivalency factors.

Wet scrubber means an add-on air pollution control device that utilizes an aqueous or alkaline scrubbing liquid to collect particulate matter (including nonvaporous metals and condensed organics) and/or to absorb and neutralize acid gases.

You means the owner or operator of a SSI unit that meets the criteria in § 60.4770.

TABLE 1 TO SUBPART LLLL OF PART 60—EMISSION LIMITS AND STANDARDS FOR NEW FLUIDIZED BED SEWAGE SLUDGE INCINERATION UNITS

For the air pollutant	You must meet this emission limit [a]	Using these averaging methods and minimum sampling volumes or durations	And determining compliance using this method
Particulate matter	9.6 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meters per run).	Performance test (Method 5 at 40 CFR part 60, appendix A–3; Method 26A or Method 29 at 40 CFR part 60, appendix A–8).
Hydrogen chloride	0.24 parts per million by dry volume.	3-run average (Collect a minimum volume of 1 dry standard cubic meters per run).	Performance test (Method 26A at 40 CFR part 60, appendix A–8).

HeinOnline -- 76 Fed. Reg. 15423 2011

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 460 of 492

TABLE 1 TO SUBPART LLLL OF PART 60—EMISSION LIMITS AND STANDARDS FOR NEW FLUIDIZED BED SEWAGE SLUDGE INCINERATION UNITS—Continued

For the air pollutant	You must meet this emission limit [a]	Using these averaging methods and minimum sampling volumes or durations	And determining compliance using this method
Carbon monoxide	27 parts per million by dry volume	24-hour block average (using 1-hour averages of data). For determining compliance with the carbon monoxide concentration limit using carbon monoxide CEMS, the correction to 7 percent oxygen does not apply during periods of startup or shutdown. Use the measured carbon monoxide concentration without correcting for oxygen concentration in averaging with other carbon monoxide concentrations (corrected to 7 percent oxygen) to determine the 24-hour average value.	Continuous emissions monitoring system. (Performance Specification 4B of this part, using a low-range span of 100 ppm and a high-range span of 1000 ppm, and a RA of 0.5 ppm instead of 5 ppm specified in section 13.2. For the cylinder gas audit of Procedure 1, +/− 15% or 0.5 whichever is greater).
Dioxins/furans (total mass basis); or Dioxins/furans (toxic equivalency basis) [b]	0.013 nanograms per dry standard cubic meter (total mass basis); or 0.0044 nanograms per dry standard cubic meter (toxic equivalency basis).	3-run average (collect a minimum volume of 3 dry standard cubic meters per run).	Performance test (Method 23 at 40 CFR part 60, appendix A–7).
Mercury	0.0010 milligrams per dry standard cubic meter.	3-run average (For Method 29 and ASTM D6784–02 (Reapproved 2008),[c] collect a minimum volume of 3 dry standard cubic meters per run. For Method 30B, collect a minimum sample as specified in Method 30B at 40 CFR part 60, appendix A–8).	Performance test (Method 29 at 40 CFR part 60, appendix A–8; Method 30B at 40 CFR part 60, appendix A–8; or ASTM D6784–02 (Reapproved 2008).[c]
Oxides of nitrogen	30 parts per million by dry volume	3-run average (Collect sample for a minimum duration of one hour per run).	Performance test (Method 7 or 7E at 40 CFR part 60, appendix A–4).
Sulfur dioxide	5.3 parts per million by dry volume.	3-run average (For Method 6, collect a minimum volume of 100 liters per run. For Method 6C, sample for a minimum duration of one hour per run).	Performance test (Method 6 or 6C at 40 CFR part 40, appendix A–4; or ANSI/ASME PTC 19.10–1981.[c]
Cadmium	0.0011 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meters per run).	Performance test (Method 29 at 40 CFR part 60, appendix A–8). Use GFAAS or ICP/MS for the analytical finish.
Lead	0.00062 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 3 dry standard cubic meters per run).	Performance test (Method 29 at 40 CFR part 60, appendix A–8. Use GFAAS or ICP/MS for the analytical finish.
Fugitive emissions from ash handling.	Visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) for no more than 5 percent of the hourly observation period.	Three 1-hour observation periods	Visible emission test (Method 22 of appendix A–7 of this part).

[a] All emission limits are measured at 7 percent oxygen, dry basis at standard conditions.
[b] You have the option to comply with either the dioxin/furan emission limit on a total mass basis or the dioxin/furan emission limit on a toxic equivalency basis.
[c] Incorporated by reference, *see* § 60.17.

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15424 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 461 of 492

TABLE 2 TO SUBPART LLLL OF PART 60—EMISSION LIMITS AND STANDARDS FOR NEW MULTIPLE HEARTH SEWAGE SLUDGE INCINERATION UNITS

For the air pollutant	You must meet this emission limit [a]	Using these averaging methods and minimum sampling volumes or durations	And determining compliance using this method
Particulate matter	60 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 0.75 dry standard cubic meters per run).	Performance test (Method 5 at 40 CFR part 60, appendix A–3; Method 26A or Method 29 at 40 CFR part 60, appendix A–8).
Hydrogen chloride	1.2 parts per million by dry volume.	3-run average (For Method 26, collect a minimum volume of 200 liters per run. For Method 26A, collect a minimum volume of 1 dry standard cubic meters per run).	Performance test (Method 26 or 26A at 40 CFR part 60, appendix A–8).
Carbon monoxide	52 parts per million by dry volume	24-hour block average (using 1-hour averages of data).	Continuous emissions monitoring system. (Performance Specification 4B of this part, using a low-range span of 100 ppm and a high-range span of 1000 ppm, and a relative accuracy of 0.5 ppm instead of 5 ppm specified in section 13.2. For the cylinder gas audit of Procedure 1, +/− 15% or 0.5 whichever is greater).
Dioxins/furans (total mass basis); or Dioxins/furans (toxic equivalency basis) [b]	0.045 nanograms per dry standard cubic meter (total mass basis); or 0.0022 nanograms per dry standard cubic meter (toxic equivalency basis).	3-run average (collect a minimum volume of 3 dry standard cubic meters per run).	Performance test (Method 23 at 40 CFR part 60, appendix A–7).
Mercury	0.15 milligrams per dry standard cubic meter.	3-run average (For Method 29 and ASTM D6784–02 (Reapproved 2008),[c] collect a minimum volume of 1 dry standard cubic meters per run. For Method 30B, collect a minimum sample as specified in Method 30B at 40 CFR part 60, appendix A–8).	Performance test (Method 29 at 40 CFR part 60, appendix A–8; Method 30B at 40 CFR part 60, appendix A–8; or ASTM D6784–02 (Reapproved 2008).[c]
Oxides of nitrogen	210 parts per million by dry volume.	3-run average (Collect sample for a minimum duration of one hour per run).	Performance test (Method 7 or 7E at 40 CFR part 60, appendix A–4).
Sulfur dioxide	26 parts per million by dry volume	3-run average (For Method 6, collect a minimum volume of 200 liters per run. For Method 6C, collect sample for a minimum duration of one hour per run).	Performance test (Method 6 or 6C at 40 CFR part 40, appendix A–4; or ANSI/ASME PTC 19.10–1981.[c]
Cadmium	0.0024 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meters per run).	Performance test (Method 29 at 40 CFR part 60, appendix A–8). Use GFAAS or ICP/MS for the analytical finish.
Lead	0.0035 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meters per run).	Performance test (Method 29 at 40 CFR part 60, appendix A–8. Use GFAAS or ICP/MS for the analytical finish.
Fugitive emissions from ash handling.	Visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) for no more than 5 percent of the hourly observation period.	Three 1-hour observation periods	Visible emission test (Method 22 of appendix A–7 of this part).

[a] All emission limits are measured at 7 percent oxygen, dry basis at standard conditions.
[b] You have the option to comply with either the dioxin/furan emission limit on a total mass basis or the dioxin/furan emission limit on a toxic equivalency basis.
[c] Incorporated by reference, *see* § 60.17.

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15425 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 462 of 492

TABLE 3 TO SUBPART LLLL OF PART 60—OPERATING PARAMETERS FOR NEW SEWAGE SLUDGE INCINERATION UNITS [A]

For these operating parameters	You must establish these operating limits	And monitor using these minimum frequencies		
		Data measurement	Data recording [b]	Data averaging period for compliance
All sewage sludge incineration units				
Combustion chamber operating temperature or afterburner temperature.	Minimum combustion chamber operating temperature or afterburner temperature.	Continuous	Every 15 minutes	12-hour block.
Fugitive emissions from ash handling	Site-specific operating requirements	Not applicable	Not applicable	Not applicable.
Scrubber				
Pressure drop across each wet scrubber.	Minimum pressure drop	Continuous	Every 15 minutes	12-hour block.
Scrubber liquid flow rate	Minimum flow rate	Continuous	Every 15 minutes	12-hour block.
Scrubber liquid pH	Minimum pH	Continuous	Every 15 minutes	3-hour block.
Fabric Filter				
Alarm time of the bag leak detection system alarm.	Maximum alarm time of the bag leak detection system alarm (this operating limit is provided in § 60.4850 and is not established on a site-specific basis).			
Electrostatic precipitator				
Secondary voltage of the electrostatic precipitator collection plates.	Minimum power input to the electrostatic precipitator collection plates.	Continuous	Hourly	12-hour block.
Secondary amperage of the electrostatic precipitator collection plates. Effluent water flow rate at the outlet of the electrostatic precipitator.	Minimum effluent water flow rate at the outlet of the electrostatic precipitator.	Hourly	Hourly	12-hour block.
Activated carbon injection				
Mercury sorbent injection rate	Minimum mercury sorbent injection rate.	Hourly	Hourly	12-hour block.
Dioxin/furan sorbent injection rate	Minimum dioxin/furan sorbent injection rate.			
Carrier gas flow rate or carrier gas pressure drop.	Minimum carrier gas flow rate or minimum carrier gas pressure drop.	Continuous	Every 15 minutes	12-hour block.

[a] As specified in § 60.4870, you may use a continuous emissions monitoring system or continuous automated sampling system in lieu of establishing certain operating limits.

[b] This recording time refers to the minimum frequency that the continuous monitor or other measuring device initially records data. For all data recorded every 15 minutes, you must calculate hourly arithmetic averages. For all parameters, you use hourly averages to calculate the 12-hour or 3-hour block average specified in this table for demonstrating compliance. You maintain records of 1-hour averages.

TABLE 4 TO SUBPART LLLL OF PART 60—TOXIC EQUIVALENCY FACTORS

Dioxin/furan isomer	Toxic equivalency factor
2,3,7,8-tetrachlorinated dibenzo-p-dioxin	1
1,2,3,7,8-pentachlorinated dibenzo-p-dioxin	1
1,2,3,4,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,7,8,9-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,6,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzo-p-dioxin	0.01
octachlorinated dibenzo-p-dioxin	0.0003
2,3,7,8-tetrachlorinated dibenzofuran	0.1
2,3,4,7,8-pentachlorinated dibenzofuran	0.3
1,2,3,7,8-pentachlorinated dibenzofuran	0.03
1,2,3,4,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,6,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,7,8,9-hexachlorinated dibenzofuran	0.1
2,3,4,6,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzofuran	0.01
1,2,3,4,7,8,9-heptachlorinated dibenzofuran	0.01
octachlorinated dibenzofuran	0.0003

HeinOnline -- 76 Fed. Reg. 15426 2011

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 463 of 492

TABLE 5 TO SUBPART LLLL OF PART 60—SUMMARY OF REPORTING REQUIREMENTS FOR NEW SEWAGE SLUDGE INCINERATION UNITS [A]

Report	Due date	Contents	Reference
Notification of construction	Prior to commencing construction.	1. Statement of intent to construct 2. Anticipated date of commencement of construction. 3. Documentation for siting requirements. 4. Anticipated date of initial startup.	§ 60.4915(a).
Notification of initial startup	Prior to initial startup	1. Maximum design dry sewage sludge burning capacity 2. Anticipated and permitted maximum feed rate. 3. If applicable, the petition for site-specific operating limits. 4. Anticipated date of initial startup. 5. Site-specific monitoring plan. 6. The site-specific monitoring plan for your ash handling system.	§ 60.4915(b).
Initial compliance report	No later than 60 days following the initial performance test.	1. Company name and address 2. Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report. 3. Date of report. 4. Complete test report for the initial performance test. 5. Results of CMS [b] performance evaluation. 6. The values for the site-specific operating limits and the calculations and methods, as applicable, used to establish each operating limit. 7. Documentation of installation of bag leak detection system for fabric filter. 8. Results of initial air pollution control device inspection, including a description of repairs.	§ 60.4915(c).
Annual compliance report	No later than 12 months following the submission of the initial compliance report; subsequent reports are to be submitted no more than 12 months following the previous report.	1. Company name and address 2. Statement and signature by responsible official. 3. Date and beginning and ending dates of report. 4. If a performance test was conducted during the reporting period, the results of the test, including any new operating limits and associated calculations and the type of activated carbon used, if applicable. 5. For each pollutant and operating parameter recorded using a CMS, the highest recorded 3-hour average and the lowest recorded 3-hour average, as applicable. 6. If no deviations from emission limits, emission standards, or operating limits occurred, a statement that no deviations occurred. 7. If a fabric filter is used, the date, time, and duration of alarms. 8. If a performance evaluation of a CMS was conducted, the results, including any new operating limits and their associated calculations. 9. If you met the requirements of § 60.4885(a)(3) and did not conduct a performance test, include the dates of the last three performance tests, a comparison to the 50 percent emission limit threshold of the emission level achieved in the last three performance tests, and a statement as to whether there have been any process changes. 10. Documentation of periods when all qualified SSI unit operators were unavailable for more than 8 hours but less than 2 weeks. 11. Results of annual pollutions control device inspections, including description of repairs. 12. If there were no periods during which your CMSs had malfunctions, a statement that there were no periods during which your CMSs had malfunctions. 13. If there were no periods during which your CMSs were out of control, a statement that there were no periods during which your CMSs were out of control. 14. If there were no operator training deviations, a statement that there were no such deviations. 15. Information on monitoring plan revisions, including a copy of any revised monitoring plan.	§§ 60.4915(d).

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15427 2011

TABLE 5 TO SUBPART LLLL OF PART 60—SUMMARY OF REPORTING REQUIREMENTS FOR NEW SEWAGE SLUDGE INCINERATION UNITS [A]—Continued

Report	Due date	Contents	Reference
Deviation report (deviations from emission limits, emission standards, or operating limits, as specified in § 60.4915(e)(1)).	By August 1 of a calendar year for data collected during the first half of the calendar year; by February 1 of a calendar year for data collected during the second half of the calendar year.	*If using a CMS:* 1. Company name and address ..... 2. Statement by a responsible official. 3. The calendar dates and times your unit deviated from the emission limits or operating limits. 4. The averaged and recorded data for those dates. 5. Duration and cause of each deviation. 6. Dates, times, and causes for monitor downtime incidents. 7. A copy of the operating parameter monitoring data during each deviation and any test report that documents the emission levels. 8. For periods of CMS malfunction or when a CMS was out of control, you must include the information specified in § 60.4915(e)(3)(viii). *If not using a CMS:* ..... 1. Company name and address ..... 2. Statement by a responsible official. 3. The total operating time of each affected SSI. 4. The calendar dates and times your unit deviated from the emission limits, emission standard, or operating limits. 5. The averaged and recorded data for those dates. 6. Duration and cause of each deviation. 7. A copy of any performance test report that showed a deviation from the emission limits or standards. 8. A brief description of any malfunction, a description of actions taken during the malfunction to minimize emissions, and corrective action taken.	§ 60.4915(e).
Notification of qualified operator deviation (if all qualified operators are not accessible for 2 weeks or more).	Within 10 days of deviation	1. Statement of cause of deviation ..... 2. Description of actions taken to ensure that a qualified operator will be available. 3. The date when a qualified operator will be accessible.	§ 60.4915(f).
Notification of status of qualified operator deviation.	Every 4 weeks following notification of deviation.	1. Description of actions taken to ensure that a qualified operator is accessible. 2. The date when you anticipate that a qualified operator will be accessible. 3. Request for approval to continue operation.	§ 60.4915(f).
Notification of resumed operation following shutdown (due to qualified operator deviation and as specified in § 60.4835(b)(2)(i).	Within 5 days of obtaining a qualified operator and resuming operation.	1. Notification that you have obtained a qualified operator and are resuming operation.	§ 60.4915(f).
Notification of a force majeure	As soon as practicable following the date you first knew, or through due diligence should have known that the event may cause or caused a delay in conducting a performance test beyond the regulatory deadline; the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification must occur as soon as practicable.	1. Description of the force majeure event ..... 2. Rationale for attributing the delay in conducting the performance test beyond the regulatory deadline to the force majeure. 3. Description of the measures taken or to be taken to minimize the delay. 4. Identification of the date by which you propose to conduct the performance test.	§ 60.4915(g).
Notification of intent to start or stop use of a CMS.	1 month before starting or stopping use of a CMS.	1. Intent to start or stop use of a CMS	§ 60.4915(h).
Notification of intent to conduct a performance test.	At least 30 days prior to the performance test.	1. Intent to conduct a performance test to comply with this subpart.	
Notification of intent to conduct a rescheduled performance test.	At least 7 days prior to the date of a rescheduled performance test.	1. Intent to conduct a rescheduled performance test to comply with this subpart.	

[a] This table is only a summary, see the referenced sections of the rule for the complete requirements.
[b] CMS means continuous monitoring system.

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15428 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 465 of 492

US EPA ARCHIVE DOCUMENT

Subpart MMMM—Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units

Sec.

Table of Contents

Introduction

60.5000 What is the purpose of this subpart?
60.5005 Am I affected by this subpart?
60.5010 Is a state plan required for all states?
60.5015 What must I include in my state plan?
60.5020 Is there an approval process for my state plan?
60.5025 What if my state plan is not approvable?
60.5030 Is there an approval process for a negative declaration letter?
60.5035 What compliance schedule must I include in my state plan?
60.5040 Are there any state plan requirements for this subpart that apply instead of the requirements specified in subpart B?
60.5045 In lieu of a state plan submittal, are there other acceptable option(s) for a state to meet its section 111(d)/129 (b)(2) obligations?
60.5050 What authorities will not be delegated to state, local, or tribal agencies?
60.5055 Does this subpart directly affect SSI unit owners and operators in my state?

Applicability of State Plans

60.5060 What SSI units must I address in my state plan?
60.5065 What SSI units are exempt from my state plan?

Use of Model Rule

60.5070 What is the "model rule" in this subpart?
60.5075 How does the model rule relate to the required elements of my state plan?
60.5080 What are the principal components of the model rule?

Model Rule—Increments of Progress

60.5085 What are my requirements for meeting increments of progress and achieving final compliance?
60.5090 When must I complete each increment of progress?
60.5095 What must I include in the notifications of achievement of increments of progress?
60.5100 When must I submit the notifications of achievement of increments of progress?
60.5105 What if I do not meet an increment of progress?
60.5110 How do I comply with the increment of progress for submittal of a control plan?
60.5115 How do I comply with the increment of progress for achieving final compliance?
60.5120 What must I do if I close my SSI unit and then restart it?
60.5125 What must I do if I plan to permanently close my SSI unit and not restart it?

Model Rule—Operator Training and Qualification

60.5130 What are the operator training and qualification requirements?
60.5135 When must the operator training course be completed?
60.5140 How do I obtain my operator qualification?
60.5145 How do I maintain my operator qualification?
60.5150 How do I renew my lapsed operator qualification?
60.5155 What if all the qualified operators are temporarily not accessible?
60.5160 What site-specific documentation is required and how often must it be reviewed by qualified operators and plant personnel?

Model Rule—Emission Limits, Emission Standards, and Operating Limits and Requirements

60.5165 What emission limits and standards must I meet and by when?
60.5170 What operating limits and requirements must I meet and by when?
60.5175 How do I establish operating limits if I do not use a wet scrubber, fabric filter, electrostatic precipitator, activated carbon injection, or afterburner, or if I limit emissions in some other manner, to comply with the emission limits?
60.5180 Do the emission limits, emission standards, and operating limits apply during periods of startup, shutdown, and malfunction?
60.5181 How do I establish affirmative defense for exceedance of an emission limit or standard during malfunction?

Model Rule—Initial Compliance Requirements

60.5185 How and when do I demonstrate initial compliance with the emission limits and standards?
60.5190 How do I establish my operating limits?
60.5195 By what date must I conduct the initial air pollution control device inspection and make any necessary repairs?
60.5200 How do I develop a site-specific monitoring plan for my continuous monitoring, bag leak detection, and ash handling systems, and by what date must I conduct an initial performance evaluation?

Model Rule—Continuous Compliance Requirements

60.5205 How and when do I demonstrate continuous compliance with the emission limits and standards?
60.5210 How do I demonstrate continuous compliance with my operating limits?
60.5215 By what date must I conduct annual air pollution control device inspections and make any necessary repairs?

Model Rule—Performance Testing, Monitoring, and Calibration Requirements

60.5220 What are the performance testing, monitoring, and calibration requirements for compliance with the emission limits and standards?
60.5225 What are the monitoring and calibration requirements for compliance with my operating limits?

Model Rule—Recordkeeping and Reporting

60.5230 What records must I keep?
60.5235 What reports must I submit?

Model Rule—Title V Operating Permits

60.5240 Am I required to apply for and obtain a title V operating permit for my existing SSI unit?
60.5245 When must I submit a title V permit application for my existing SSI unit?

Model Rule—Definitions

60.5250 What definitions must I know?

Tables

Table 1 to Subpart MMMM of Part 60—Model Rule—Increments of Progress and Compliance Schedules for Existing Sewage Sludge Incineration Units
Table 2 to Subpart MMMM of Part 60—Model Rule—Emission Limits and Standards for Existing Fluidized Bed Sewage Sludge Incineration Units
Table 3 to Subpart MMMM of Part 60—Model Rule—Emission Limits and Standards for Existing Multiple Hearth Sewage Sludge Incineration Units
Table 4 to Subpart MMMM of Part 60—Model Rule—Operating Parameters for Existing Sewage Sludge Incineration Units
Table 5 to Subpart MMMM of Part 60—Model Rule—Toxic Equivalency Factors
Table 6 to Subpart MMMM of Part 60—Model Rule—Summary of Reporting Requirements for Existing Sewage Sludge Incineration Units

Introduction

60.5000 What is the purpose of this subpart?

This subpart establishes emission guidelines and compliance schedules for the control of emissions from sewage sludge incineration (SSI) units. The pollutants addressed by these emission guidelines are listed in Tables 2 and 3 to this subpart. These emission guidelines are developed in accordance with sections 111(d) and 129 of the Clean Air Act and subpart B of this part. To the extent any requirement of this subpart is inconsistent with the requirements of subpart A of this part, the requirements of this subpart will apply.

§ 60.5005 Am I affected by this subpart?

(a) If you are the Administrator of an air quality program in a state or United States protectorate with one or more SSI units that commenced construction on or before October 14, 2010, you must submit a state plan to U.S. Environmental Protection Agency (EPA) that implements the emission guidelines contained in this subpart.

(b) You must submit the state plan to EPA by March 21, 2012.

HeinOnline -- 76 Fed. Reg. 15429 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 466 of 492

§ 60.5010 Is a state plan required for all states?

No. You are not required to submit a state plan if there are no SSI units for which construction commenced on or before October 14, 2010 in your state, and you submit a negative declaration letter in place of the state plan.

§ 60.5015 What must I include in my state plan?

(a) You must include the nine items described in paragraphs (a)(1) through (a)(9) of this section in your state plan.

(1) Inventory of affected SSI units, including those that have ceased operation but have not been dismantled.

(2) Inventory of emissions from affected SSI units in your state.

(3) Compliance schedules for each affected SSI unit.

(4) Emission limits, emission standards, operator training and qualification requirements, and operating limits for affected SSI units that are at least as protective as the emission guidelines contained in this subpart.

(5) Performance testing, recordkeeping, and reporting requirements.

(6) Certification that the hearing on the state plan was held, a list of witnesses and their organizational affiliations, if any, appearing at the hearing, and a brief written summary of each presentation or written submission.

(7) Provision for state progress reports to EPA.

(8) Identification of enforceable state mechanisms that you selected for implementing the emission guidelines of this subpart.

(9) Demonstration of your state's legal authority to carry out the sections 111(d) and 129 state plan.

(b) Your state plan may deviate from the format and content of the emission guidelines contained in this subpart. However, if your state plan does deviate in content, you must demonstrate that your state plan is at least as protective as the emission guidelines contained in this subpart. Your state plan must address regulatory applicability, increments of progress for retrofit, operator training and qualification, emission limits and standards, performance testing, operating limits, monitoring, and recordkeeping and reporting.

(c) You must follow the requirements of subpart B of this part (Adoption and Submittal of state plans for Designated Facilities) in your state plan.

§ 60.5020 Is there an approval process for my state plan?

Yes. The EPA will review your state plan according to § 60.27.

§ 60.5025 What if my state plan is not approvable?

If you do not submit an approvable state plan (or a negative declaration letter) by March 21, 2013, EPA will develop a Federal plan according to § 60.27 to implement the emission guidelines contained in this subpart. Owners and operators of SSI units not covered by an approved state plan must comply with the Federal plan. The Federal plan is an interim action and will be automatically withdrawn when your state plan is approved.

§ 60.5030 Is there an approval process for a negative declaration letter?

No. The EPA has no formal review process for negative declaration letters. Once your negative declaration letter has been received, EPA will place a copy in the public docket and publish a notice in the **Federal Register**. If, at a later date, a SSI unit for which construction commenced on or before October 14, 2010 is found in your state, the Federal plan implementing the emission guidelines contained in this subpart would automatically apply to that SSI unit until your state plan is approved.

§ 60.5035 What compliance schedule must I include in my state plan?

(a) For SSI units that commenced construction on or before October 14, 2010, your state plan must include compliance schedules that require SSI units to achieve final compliance as expeditiously as practicable after approval of the state plan but not later than the earlier of the two dates specified in paragraphs (a)(1) and (a)(2) of this section.

(1) March 21, 2016.

(2) Three years after the effective date of state plan approval.

(b) For compliance schedules that extend more than 1 year following the effective date of state plan approval, state plans must include dates for enforceable increments of progress as specified in § 60.5090.

§ 60.5040 Are there any state plan requirements for this subpart that apply instead of the requirements specified in subpart B?

Yes. Subpart B establishes general requirements for developing and processing section 111(d) state plans. This subpart applies instead of the requirements in subpart B of this part, as specified in paragraphs (a) and (b) of this section:

(a) State plans developed to implement this subpart must be as protective as the emission guidelines contained in this subpart. State plans must require all SSI units to comply by the dates specified in § 60.5035. This applies instead of the option for case-by-case less stringent emission standards and longer compliance schedules in § 60.24(f).

(b) State plans developed to implement this subpart are required to include two increments of progress for the affected SSI units. These two minimum increments are the final control plan submittal date and final compliance date in § 60.21(h)(1) and (5). This applies instead of the requirement of § 60.24(e)(1) that would require a state plan to include all five increments of progress for all SSI units.

§ 60.5045 In lieu of a state plan submittal, are there other acceptable option(s) for a state to meet its section 111(d)/129 (b)(2) obligations?

Yes, a state may meet its Clean Air Act section 111(d)/129 obligations by submitting an acceptable written request for delegation of the Federal plan that meets the requirements of this section. This is the only other option for a state to meet its section 111(d)/129 obligations.

(a) An acceptable Federal plan delegation request must include the following:

(1) A demonstration of adequate resources and legal authority to administer and enforce the Federal plan.

(2) The items under § 60.5015(a)(1), (a)(2), and (a)(7).

(3) Certification that the hearing on the state delegation request, similar to the hearing for a state plan submittal, was held, a list of witnesses and their organizational affiliations, if any, appearing at the hearing, and a brief written summary of each presentation or written submission.

(4) A commitment to enter into a Memorandum of Agreement with the Regional Administrator that sets forth the terms, conditions, and effective date of the delegation and that serves as the mechanism for the transfer of authority. Additional guidance and information is given in EPA's Delegation Manual, Item 7–139, Implementation and Enforcement of 111(d)(2) and 111(d)/(2)/129 (b)(3) Federal plans.

(b) A state with an already approved SSI Clean Air Act section 111(d)/129 state plan is not precluded from receiving EPA approval of a delegation request for the revised Federal plan, provided the requirements of paragraph (a) of this section are met, and at the time of the delegation request, the state

HeinOnline -- 76 Fed. Reg. 15430 2011

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 467 of 492

also requests withdrawal of EPA's previous state plan approval.

(c) A state's Clean Air Act section 111(d)/129 obligations are separate from its obligations under title V of the Clean Air Act.

§ 60.5050 What authorities will not be delegated to state, local, or tribal agencies?

The authorities that will not be delegated to state, local, or tribal agencies are specified in paragraphs (a) through (g) of this section.

(a) Approval of alternatives to the emission limits and standards in Tables 2 and 3 to this subpart and operating limits established under § 60.5175 or § 60.5190.

(b) Approval of major alternatives to test methods.

(c) Approval of major alternatives to monitoring.

(d) Approval of major alternatives to recordkeeping and reporting.

(e) The requirements in § 60.5175.

(f) The requirements in § 60.5155(b)(2).

(g) Performance test and data reduction waivers under § 60.8(b).

§ 60.5055 Does this subpart directly affect SSI unit owners and operators in my state?

(a) No. This subpart does not directly affect SSI unit owners and operators in your state. However, SSI unit owners and operators must comply with the state plan you develop to implement the emission guidelines contained in this subpart. States may choose to incorporate the model rule text directly in their state plan.

(b) If you do not submit an approvable plan to implement and enforce the guidelines contained in this subpart by March 21, 2012, EPA will implement and enforce a Federal plan, as provided in § 60.5025, to ensure that each unit within your state that commenced construction on or before October 14, 2010 reaches compliance with all the provisions of this subpart by the dates specified in § 60.5035.

Applicability of State Plans

§ 60.5060 What SSI units must I address in my state plan?

(a) Your state plan must address SSI units that meet all three criteria described in paragraphs (a)(1) through (3) of this section.

(1) SSI units in your state that commenced construction on or before October 14, 2010.

(2) SSI units that meet the definition of a SSI unit as defined in § 60.5250.

(3) SSI units not exempt under § 60.5065.

(b) If the owner or operator of a SSI unit makes changes that meet the definition of modification after September 21, 2011, the SSI unit becomes subject to subpart LLLL of this part and the state plan no longer applies to that unit.

(c) If the owner or operator of a SSI unit makes physical or operational changes to a SSI unit for which construction commenced on or before September 21, 2011 primarily to comply with your state plan, subpart LLLL of this part does not apply to that unit. Such changes do not qualify as modifications under subpart LLLL of this part.

§ 60.5065 What SSI units are exempt from my state plan?

This subpart exempts combustion units that incinerate sewage sludge and are not located at a wastewater treatment facility designed to treat domestic sewage sludge. These units may be subject to another subpart of this part (*e.g.,* subpart CCCC of this part). The owner or operator of such a combustion unit must notify the Administrator of an exemption claim under this section.

Use of Model Rule

§ 60.5070 What is the "model rule" in this subpart?

(a) The model rule is the portion of these emission guidelines (§§ 60.5085 through 60.5250) that addresses the regulatory requirements applicable to SSI units. The model rule provides these requirements in regulation format. You must develop a state plan that is at least as protective as the model rule. You may use the model rule language as part of your state plan. Alternative language may be used in your state plan if you demonstrate that the alternative language is at least as protective as the model rule contained in this subpart.

(b) In the model rule of §§ 60.5085 through 60.5250, "you" and "Administrator" have the meaning specified in § 60.5250.

§ 60.5075 How does the model rule relate to the required elements of my state plan?

Use the model rule to satisfy the state plan requirements specified in § 60.5015(a)(3) through (a)(5).

§ 60.5080 What are the principal components of the model rule?

The model rule contains the nine major components listed in paragraphs (a) through (i) of this section.

(a) Increments of progress toward compliance.

(b) Operator training and qualification.

(c) Emission limits, emission standards, and operating limits.

(d) Initial compliance requirements.

(e) Continuous compliance requirements.

(f) Performance testing, monitoring, and calibration requirements.

(g) Recordkeeping and reporting.

(h) Definitions.

(i) Tables.

Model Rule—Increments of Progress

§ 60.5085 What are my requirements for meeting increments of progress and achieving final compliance?

If you plan to achieve compliance more than 1 year following the effective date of state plan approval, you must meet the two increments of progress specified in paragraphs (a) and (b) of this section.

(a) Submit a final control plan.

(b) Achieve final compliance.

§ 60.5090 When must I complete each increment of progress?

Table 1 to this subpart specifies compliance dates for each increment of progress.

§ 60.5095 What must I include in the notifications of achievement of increments of progress?

Your notification of achievement of increments of progress must include the three items specified in paragraphs (a) through (c) of this section.

(a) Notification that the increment of progress has been achieved.

(b) Any items required to be submitted with each increment of progress.

(c) Signature of the owner or operator of the SSI unit.

§ 60.5100 When must I submit the notifications of achievement of increments of progress?

Notifications for achieving increments of progress must be postmarked no later than 10 business days after the compliance date for the increment.

§ 60.5105 What if I do not meet an increment of progress?

If you fail to meet an increment of progress, you must submit a notification to the Administrator postmarked within 10 business days after the date for that increment of progress in Table 1 to this subpart. You must inform the Administrator that you did not meet the increment, and you must continue to submit reports each subsequent calendar month until the increment of progress is met.

§ 60.5110 How do I comply with the increment of progress for submittal of a control plan?

For your control plan increment of progress, you must satisfy the two

HeinOnline -- 76 Fed. Reg. 15431 2011

US EPA ARCHIVE DOCUMENT

requirements specified in paragraphs (a) and (b) of this section.

(a) Submit the final control plan that includes the four items described in paragraphs (a)(1) through (a)(4) of this section.

(1) A description of the devices for air pollution control and process changes that you will use to comply with the emission limits and standards and other requirements of this subpart.

(2) The type(s) of waste to be burned, if waste other than sewage sludge is burned in the unit.

(3) The maximum design sewage sludge burning capacity.

(4) If applicable, the petition for site-specific operating limits under § 60.5175.

(b) Maintain an onsite copy of the final control plan.

§ 60.5115 How do I comply with the increment of progress for achieving final compliance?

For the final compliance increment of progress, you must complete all process changes and retrofit construction of control devices, as specified in the final control plan, so that, if the affected SSI unit is brought online, all necessary process changes and air pollution control devices would operate as designed.

§ 60.5120 What must I do if I close my SSI unit and then restart it?

(a) If you close your SSI unit but will restart it prior to the final compliance date in your state plan, you must meet the increments of progress specified in § 60.5085.

(b) If you close your SSI unit but will restart it after your final compliance date, you must complete emission control retrofits and meet the emission limits, emission standards, and operating limits on the date your unit restarts operation.

§ 60.5125 What must I do if I plan to permanently close my SSI unit and not restart it?

If you plan to close your SSI unit rather than comply with the state plan, submit a closure notification, including the date of closure, to the Administrator by the date your final control plan is due.

Model Rule—Operator Training and Qualification

§ 60.5130 What are the operator training and qualification requirements?

(a) A SSI unit cannot be operated unless a fully trained and qualified SSI unit operator is accessible, either at the facility or can be at the facility within 1 hour. The trained and qualified SSI unit operator may operate the SSI unit directly or be the direct supervisor of one or more other plant personnel who operate the unit. If all qualified SSI unit operators are temporarily not accessible, you must follow the procedures in § 60.5155.

(b) Operator training and qualification must be obtained through a state-approved program or by completing the requirements included in paragraph (c) of this section.

(c) Training must be obtained by completing an incinerator operator training course that includes, at a minimum, the three elements described in paragraphs (c)(1) through (c)(3) of this section.

(1) Training on the 10 subjects listed in paragraphs (c)(1)(i) through (c)(1)(x) of this section.

(i) Environmental concerns, including types of emissions.

(ii) Basic combustion principles, including products of combustion.

(iii) Operation of the specific type of incinerator to be used by the operator, including proper startup, sewage sludge feeding, and shutdown procedures.

(iv) Combustion controls and monitoring.

(v) Operation of air pollution control equipment and factors affecting performance (if applicable).

(vi) Inspection and maintenance of the incinerator and air pollution control devices.

(vii) Actions to prevent malfunctions or to prevent conditions that may lead to malfunctions.

(viii) Bottom and fly ash characteristics and handling procedures.

(ix) Applicable Federal, State, and local regulations, including Occupational Safety and Health Administration workplace standards.

(x) Pollution prevention.

(2) An examination designed and administered by the state-approved program.

(3) Written material covering the training course topics that may serve as reference material following completion of the course.

§ 60.5135 When must the operator training course be completed?

The operator training course must be completed by the later of the three dates specified in paragraphs (a) through (c) of this section.

(a) The final compliance date (Increment 2).

(b) Six months after your SSI unit startup.

(c) Six months after an employee assumes responsibility for operating the SSI unit or assumes responsibility for supervising the operation of the SSI unit.

§ 60.5140 How do I obtain my operator qualification?

(a) You must obtain operator qualification by completing a training course that satisfies the criteria under § 60.5130(b).

(b) Qualification is valid from the date on which the training course is completed and the operator successfully passes the examination required under § 60.5130(c)(2).

§ 60.5145 How do I maintain my operator qualification?

To maintain qualification, you must complete an annual review or refresher course covering, at a minimum, the five topics described in paragraphs (a) through (e) of this section.

(a) Update of regulations.

(b) Incinerator operation, including startup and shutdown procedures, sewage sludge feeding, and ash handling.

(c) Inspection and maintenance.

(d) Prevention of malfunctions or conditions that may lead to malfunction.

(e) Discussion of operating problems encountered by attendees.

§ 60.5150 How do I renew my lapsed operator qualification?

You must renew a lapsed operator qualification before you begin operation of a SSI unit by one of the two methods specified in paragraphs (a) and (b) of this section.

(a) For a lapse of less than 3 years, you must complete a standard annual refresher course described in § 60.5145.

(b) For a lapse of 3 years or more, you must repeat the initial qualification requirements in § 60.5140(a).

§ 60.5155 What if all the qualified operators are temporarily not accessible?

If a qualified operator is not at the facility and cannot be at the facility within 1 hour, you must meet the criteria specified in either paragraph (a) or (b) of this section, depending on the length of time that a qualified operator is not accessible.

(a) When a qualified operator is not accessible for more than 8 hours, the SSI unit may be operated for less than 2 weeks by other plant personnel who are familiar with the operation of the SSI unit and who have completed a review of the information specified in § 60.5160 within the past 12 months. However, you must record the period when a qualified operator was not accessible and include this deviation in the annual report as specified under § 60.5235(d).

(b) When a qualified operator is not accessible for 2 weeks or more, you must take the two actions that are

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15432 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 469 of 492

described in paragraphs (b)(1) and (b)(2) of this section.

(1) Notify the Administrator of this deviation in writing within 10 days. In the notice, state what caused this deviation, what you are doing to ensure that a qualified operator is accessible, and when you anticipate that a qualified operator will be accessible.

(2) Submit a status report to the Administrator every 4 weeks outlining what you are doing to ensure that a qualified operator is accessible, stating when you anticipate that a qualified operator will be accessible, and requesting approval from the Administrator to continue operation of the SSI unit. You must submit the first status report 4 weeks after you notify the Administrator of the deviation under paragraph (b)(1) of this section.

(i) If the Administrator notifies you that your request to continue operation of the SSI unit is disapproved, the SSI unit may continue operation for 30 days, and then must cease operation.

(ii) Operation of the unit may resume if a qualified operator is accessible as required under § 60.5130(a). You must notify the Administrator within 5 days of having resumed operations and of having a qualified operator accessible.

§ 60.5160 What site-specific documentation is required and how often must it be reviewed by qualified operators and plant personnel?

(a) You must maintain at the facility the documentation of the operator training procedures specified under § 60.5230(c)(1) and make the documentation readily accessible to all SSI unit operators.

(b) You must establish a program for reviewing the information listed in § 60.5230(c)(1) with each qualified incinerator operator and other plant personnel who may operate the unit according to the provisions of § 60.5155(a), according to the following schedule:

(1) The initial review of the information listed in § 60.5230(c)(1) must be conducted within 6 months after the effective date of this subpart or prior to an employee's assumption of responsibilities for operation of the SSI unit, whichever date is later.

(2) Subsequent annual reviews of the information listed in § 60.5230(c)(1) must be conducted no later than 12 months following the previous review.

Model Rule—Emission Limits, Emission Standards, and Operating Limits and Requirements

§ 60.5165 What emission limits and standards must I meet and by when?

You must meet the emission limits and standards specified in Table 2 or 3 to this subpart by the final compliance date under the approved state plan, Federal plan, or delegation, as applicable. The emission limits and standards apply at all times the unit is operating and during periods of malfunction. The emission limits and standards apply to emissions from a bypass stack or vent while sewage sludge is in the combustion chamber (*i.e.,* until the sewage sludge feed to the combustor has been cut off for a period of time not less than the sewage sludge incineration residence time).

§ 60.5170 What operating limits and requirements must I meet and by when?

You must meet, as applicable, the operating limits and requirements specified in paragraphs (a) through (d) and (h) of this section, according to the schedule specified in paragraph (e) of this section. The operating parameters for which you will establish operating limits for a wet scrubber, fabric filter, electrostatic precipitator, or activated carbon injection are listed in Table 4 to this subpart. You must comply with the operating requirements in paragraph (f) of this section and the requirements in paragraph (g) of this section for meeting any new operating limits, re-established in § 60.5210. The operating limits apply at all times that sewage sludge is in the combustion chamber (*i.e.,* until the sewage sludge feed to the combustor has been cut off for a period of time not less than the sewage sludge incineration residence time).

(a) You must meet a site-specific operating limit for minimum operating temperature of the combustion chamber (or afterburner combustion chamber) that you establish in § 60.5190.

(b) If you use a wet scrubber, electrostatic precipitator, activated carbon injection, or afterburner to comply with an emission limit, you must meet the site-specific operating limits that you establish in § 60.5190 for each operating parameter associated with each air pollution control device.

(c) If you use a fabric filter to comply with the emission limits, you must install the bag leak detection system specified in §§ 60.5200(b) and 60.5225(b)(3)(i) and operate the bag leak detection system such that the alarm does not sound more than 5 percent of the operating time during a 6-month period. You must calculate the alarm time as specified in § 60.5210(a)(2)(i).

(d) You must meet the operating requirements in your site-specific fugitive emission monitoring plan, submitted as specified in § 60.5200(d) to ensure that your ash handling system will meet the emission standard for fugitive emissions from ash handling.

(e) You must meet the operating limits and requirements specified in paragraphs (a) through (d) of this section by the final compliance date under the approved state plan, Federal plan, or delegation, as applicable.

(f) You must monitor the feed rate and moisture content of the sewage sludge fed to the sewage sludge incinerator, as specified in paragraphs (f)(1) and (f)(2) of this section.

(1) Continuously monitor the sewage sludge feed rate and calculate a daily average for all hours of operation during each 24-hour period. Keep a record of the daily average feed rate, as specified in § 60.5230(f)(3)(ii).

(2) Take at least one grab sample per day of the sewage sludge fed to the sewage sludge incinerator. If you take more than one grab sample in a day, calculate the daily average for the grab samples. Keep a record of the daily average moisture content, as specified in § 60.5230(f)(3)(ii).

(g) For the operating limits and requirements specified in paragraphs (a) through (d) and (h) of this section, you must meet any new operating limits and requirements, re-established according to § 60.5210(d).

(h) If you use an air pollution control device other than a wet scrubber, fabric filter, electrostatic precipitator, or activated carbon injection to comply with the emission limits in Table 2 or 3 to this subpart, you must meet any site-specific operating limits or requirements that you establish as required in § 60.5175.

§ 60.5175 How do I establish operating limits if I do not use a wet scrubber, fabric filter, electrostatic precipitator, activated carbon injection, or afterburner, or if I limit emissions in some other manner, to comply with the emission limits?

If you use an air pollution control device other than a wet scrubber, fabric filter, electrostatic precipitator, activated carbon injection, or afterburner, or limit emissions in some other manner (*e.g.,* materials balance) to comply with the emission limits in § 60.5165, you must meet the requirements in paragraphs (a) and (b) of this section.

(a) Meet the applicable operating limits and requirements in § 60.4850, and establish applicable operating limits according to § 60.5190.

HeinOnline -- 76 Fed. Reg. 15433 2011

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 470 of 492

(b) Petition the Administrator for specific operating parameters, operating limits, and averaging periods to be established during the initial performance test and to be monitored continuously thereafter.

(1) You are responsible for submitting any supporting information in a timely manner to enable the Administrator to consider the application prior to the performance test. You must not conduct the initial performance test until after the petition has been approved by the Administrator, and you must comply with the operating limits as written, pending approval by the Administrator. Neither submittal of an application, nor the Administrator's failure to approve or disapprove the application relieves you of the responsibility to comply with any provision of this subpart.

(2) Your petition must include the five items listed in paragraphs (b)(2)(i) through (b)(2)(v) of this section.

(i) Identification of the specific parameters you propose to monitor.

(ii) A discussion of the relationship between these parameters and emissions of regulated pollutants, identifying how emissions of regulated pollutants change with changes in these parameters, and how limits on these parameters will serve to limit emissions of regulated pollutants.

(iii) A discussion of how you will establish the upper and/or lower values for these parameters that will establish the operating limits on these parameters, including a discussion of the averaging periods associated with those parameters for determining compliance.

(iv) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments.

(v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

§ 60.5180 Do the emission limits, emission standards, and operating limits apply during periods of startup, shutdown, and malfunction?

The emission limits and standards apply at all times and during periods of malfunction. The operating limits apply at all times that sewage sludge is in the combustion chamber (*i.e.,* until the sewage sludge feed to the combustor has been cut off for a period of time not less than the sewage sludge incineration residence time). For determining compliance with the CO concentration limit using CO CEMS, the correction to 7 percent oxygen does not apply during periods of startup or shutdown. Use the measured CO concentration without correcting for oxygen concentration in averaging with other CO concentrations (corrected to 7 percent O_2) to determine the 24-hour average value.

§ 60.5181 How do I establish an affirmative defense for exceedance of an emission limit or standard during malfunction?

In response to an action to enforce the numerical emission standards set forth in paragraph § 60.5165, you may assert an affirmative defense to a claim for civil penalties for exceedances of emission limits that are caused by malfunction, as defined in § 60.2. Appropriate penalties may be assessed however, if you fail to meet your burden of proving all of the requirements in the affirmative defense. The affirmative defense shall not be available for claims for injunctive relief.

(a) To establish the affirmative defense in any action to enforce such a limit, you must timely meet the notification requirements in paragraph (b) of this section, and must prove by a preponderance of evidence that the conditions in paragraphs (a)(1) through (a)(9) of this section are met.

(1) The excess emissions:

(i) Were caused by a sudden, infrequent, and unavoidable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner, and (ii) Could not have been prevented through careful planning, proper design or better operation and maintenance practices, and (iii) Did not stem from any activity or event that could have been foreseen and avoided, or planned for, and

(iv) Were not part of a recurring pattern indicative of inadequate design, operation, or maintenance, and

(2) Repairs were made as expeditiously as possible when the applicable emission limits were being exceeded. Off-shift and overtime labor were used, to the extent practicable to make these repairs, and (3) The frequency, amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions, and (4) If the excess emissions resulted from a bypass of control equipment or a process, then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage, and

(5) All possible steps were taken to minimize the impact of the excess emissions on ambient air quality, the environment and human health, and

(6) All emissions monitoring and control systems were kept in operation if at all possible consistent with safety and good air pollution control practices, and

(7) All of the actions in response to the excess emissions were documented by properly signed, contemporaneous operating logs, and

(8) At all times, the affected facility was operated in a manner consistent with good practices for minimizing emissions, and

(9) A written root cause analysis has been prepared the purpose of which is to determine, correct, and eliminate the primary causes of the malfunction and the excess emissions resulting from the malfunction event at issue. The analysis shall also specify, using best monitoring methods and engineering judgment, the amount of excess emissions that were the result of the malfunction.

(b) The owner or operator of the SSI unit experiencing an exceedance of its emission limit(s) during a malfunction, shall notify the Administrator by telephone or facsimile (fax) transmission as soon as possible, but no later than 2 business days after the initial occurrence of the malfunction, if it wishes to avail itself of an affirmative defense to civil penalties for that malfunction. The owner or operator seeking to assert an affirmative defense shall also submit a written report to the Administrator within 45 days of the initial occurrence of the exceedance of the standard in § 60.5165 to demonstrate, with all necessary supporting documentation, that it has met the requirements set forth in paragraph (a) of this section. The owner or operator may seek an extension of this deadline for up to 30 additional days by submitting a written request to the Administrator before the expiration of the 45 day period. Until a request for an extension has been approved by the Administrator, the owner or operator is subject to the requirement to submit such report within 45 days of the initial occurrence of the exceedance.

Model Rule—Initial Compliance Requirements

§ 60.5185 How and when do I demonstrate initial compliance with the emission limits and standards?

To demonstrate initial compliance with the emission limits and standards in Table 2 or 3 to this subpart, use the procedures specified in paragraph (a) of this section. In lieu of using the procedures specified in paragraph (a) of this section, you have the option to demonstrate initial compliance using the procedures specified in paragraph (b) of this section for particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans (total mass basis or toxic

HeinOnline -- 76 Fed. Reg. 15434 2011

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 471 of 492

equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, lead, and fugitive emissions from ash handling. You must meet the requirements of paragraphs (a) and (b) of this section, as applicable, and paragraphs (c) through (e) of this section, according to the performance testing, monitoring, and calibration requirements in § 60.5220(a) and (b).

(a) Demonstrate initial compliance using the performance test required in § 60.8. You must demonstrate that your SSI unit meets the emission limits and standards specified in Table 2 or 3 to this subpart for particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, lead, and fugitive emissions from ash handling using the performance test. The initial performance test must be conducted using the test methods, averaging methods, and minimum sampling volumes or durations specified in Table 2 or 3 to this subpart and according to the testing, monitoring, and calibration requirements specified in § 60.5220(a).

(1) Except as provided in paragraph (e) of this section, you must demonstrate that your SSI unit meets the emission limits and standards specified in Table 2 or 3 to this subpart by your final compliance date (see Table 1 to this subpart).

(2) You may use the results from a performance test conducted within the 2 previous years that was conducted under the same conditions and demonstrated compliance with the emission limits and standards in Table 2 or 3 to this subpart, provided no process changes have been made since you conducted that performance test. However, you must continue to meet the operating limits established during the most recent performance test that demonstrated compliance with the emission limits and standards in Table 2 or 3 to this subpart. The performance test must have used the test methods specified in Table 2 or 3 to this subpart.

(b) Demonstrate initial compliance using a continuous emissions monitoring system or continuous automated sampling system. The option to use a continuous emissions monitoring system for hydrogen chloride, dioxins/furans, cadmium, or lead takes effect on the date a final performance specification applicable to hydrogen chloride, dioxins/furans, cadmium, or lead is published in the **Federal Register**. The option to use a continuous automated sampling system for dioxins/furans takes effect on the date a final performance specification for such a continuous automated sampling system is published in the **Federal Register**. Collect data as specified in § 60.5220(b)(6) and use the following procedures:

(1) To demonstrate initial compliance with the emission limits specified in Table 2 or 3 to this subpart for particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, and lead, you may substitute the use of a continuous monitoring system in lieu of conducting the initial performance test required in paragraph (a) of this section, as follows:

(i) You may substitute the use of a continuous emissions monitoring system for any pollutant specified in paragraph (b)(1) of this section in lieu of conducting the initial performance test for that pollutant in paragraph (a) of this section. For determining compliance with the carbon monoxide concentration limit using carbon monoxide CEMS, the correction to 7 percent oxygen does not apply during periods of startup or shutdown. Use the measured carbon monoxide concentration without correcting for oxygen concentration in averaging with other carbon monoxide concentrations (corrected to 7 percent oxygen) to determine the 24-hour average value.

(ii) You may substitute the use of a continuous automated sampling system for mercury or dioxins/furans in lieu of conducting the annual mercury or dioxin/furan performance test in paragraph (a) of this section.

(2) If you use a continuous emissions monitoring system to demonstrate compliance with an applicable emission limit in Table 2 or 3 to this subpart, as described in paragraph (b)(1) of this section, you must use the continuous emissions monitoring system and follow the requirements specified in § 60.5220(b). You must measure emissions according to § 60.13 to calculate 1-hour arithmetic averages, corrected to 7 percent oxygen (or carbon dioxide). You must demonstrate initial compliance using a 24-hour block average of these 1-hour arithmetic average emission concentrations, calculated using Equation 19–19 in section 12.4.1 of Method 19 of 40 CFR part 60, appendix A–7.

(3) If you use a continuous automated sampling system to demonstrate compliance with an applicable emission limit in Table 2 or 3 to this subpart, as described in paragraph (b)(1) of this section, you must:

(i) Use the continuous automated sampling system specified in § 60.58b(p) and (q), and measure and calculate average emissions corrected to 7 percent oxygen (or carbon dioxide) according to § 60.58b(p) and your monitoring plan.

(A) Use the procedures specified in § 60.58b(p) to calculate 24-hour block averages to determine compliance with the mercury emission limit in Table 2 to this subpart.

(B) Use the procedures specified in § 60.58b(p) to calculate 2-week block averages to determine compliance with the dioxin/furan (total mass basis or toxic equivalency basis) emission limit in Table 2 to this subpart.

(ii) Comply with the provisions in § 60.58b(q) to develop a monitoring plan. For mercury continuous automated sampling systems, you must use Performance Specification 12B of appendix B of part 75 and Procedure 5 of appendix F of this part.

(4) Except as provided in paragraph (e) of this section, you must complete your initial performance evaluations required under your monitoring plan for any continuous emissions monitoring systems and continuous automated sampling systems by your final compliance date (see Table 1 to this subpart). Your performance evaluation must be conducted using the procedures and acceptance criteria specified in § 60.5200(a)(3).

(c) To demonstrate initial compliance with the dioxins/furans toxic equivalency emission limit in Table 2 or 3 to this subpart, determine dioxins/furans toxic equivalency as follows:

(1) Measure the concentration of each dioxin/furan tetra- through octachlorinated-isomer emitted using EPA Method 23 at 40 CFR part 60, appendix A–7.

(2) Multiply the concentration of each dioxin/furan (tetra- through octa-chlorinated) isomer by its corresponding toxic equivalency factor specified in Table 5 to this subpart. (3) Sum the products calculated in accordance with paragraph (c)(2) of this section to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

(d) Submit an initial compliance report, as specified in § 60.5235(b).

(e) If you demonstrate initial compliance using the performance test specified in paragraph (a) of this section, then the provisions of this paragraph (e) apply. If a force majeure is about to occur, occurs, or has occurred for which you intend to assert a claim of force majeure, you must notify the Administrator in writing as specified in § 60.5235(g). You must conduct the initial performance test as soon as practicable after the force majeure occurs. The Administrator will determine whether or not to grant the extension to the initial performance test

HeinOnline -- 76 Fed. Reg. 15435 2011

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 472 of 492

deadline, and will notify you in writing of approval or disapproval of the request for an extension as soon as practicable. Until an extension of the performance test deadline has been approved by the Administrator, you remain strictly subject to the requirements of this subpart.

§ 60.5190 How do I establish my operating limits?

(a) You must establish the site-specific operating limits specified in paragraphs (b) through (h) of this section or established in § 60.5175, as applicable, during your initial performance tests required in § 60.5185. You must meet the requirements in § 60.5210(d) to confirm these operating limits or re-establishre-establish new operating limits using operating data recorded during any performance tests or performance evaluations required in § 60.5205. You must follow the data measurement and recording frequencies and data averaging times specified in Table 4 to this subpart or as established in § 60.5175, and you must follow the testing, monitoring, and calibration requirements specified in §§ 60.5220 and 60.5225 or established in § 60.5175. You are not required to establish operating limits for the operating parameters listed in Table 4 to this subpart for a control device if you use a continuous monitoring system to demonstrate compliance with the emission limits in Table 2 or 3 to this subpart for the applicable pollutants, as follows:

(1) For a scrubber designed to control emissions of hydrogen chloride or sulfur dioxide, you are not required to establish an operating limit and monitor scrubber liquid flow rate or scrubber liquid pH if you use the continuous monitoring system specified in §§ 60.4865(b) and 60.4885(b) to demonstrate compliance with the emission limit for hydrogen chloride or sulfur dioxide.

(2) For a scrubber designed to control emissions of particulate matter, cadmium, and lead, you are not required to establish an operating limit and monitor pressure drop across the scrubber or scrubber liquid flow rate if you use the continuous monitoring system specified in §§ 60.4865(b) and 60.4885(b) to demonstrate compliance with the emission limit for particulate matter, cadmium, and lead.

(3) For an electrostatic precipitator designed to control emissions of particulate matter, cadmium, and lead, you are not required to establish an operating limit and monitor secondary voltage of the collection plates, secondary amperage of the collection plates, or effluent water flow rate at the outlet of the electrostatic precipitator if you use the continuous monitoring system specified in §§ 60.4865(b) and 60.4885(b) to demonstrate compliance with the emission limit for particulate matter, lead, and cadmium.

(4) For an activated carbon injection system designed to control emissions of mercury, you are not required to establish an operating limit and monitor sorbent injection rate and carrier gas flow rate (or carrier gas pressure drop) if you use the continuous monitoring system specified in §§ 60.4865(b) and 60.4885(b) to demonstrate compliance with the emission limit for mercury.

(5) For an activated carbon injection system designed to control emissions of dioxins/furans, you are not required to establish an operating limit and monitor sorbent injection rate and carrier gas flow rate (or carrier gas pressure drop) if you use the continuous monitoring system specified in §§ 60.4865(b) and 60.4885(b) to demonstrate compliance with the emission limit for dioxins/furans (total mass basis or toxic equivalency basis).

(b) Minimum pressure drop across each wet scrubber used to meet the particulate matter, lead, and cadmium emission limits in Table 2 or 3 to this subpart, equal to the lowest 4-hour average pressure drop across each such wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter, lead, and cadmium emission limits.

(c) Minimum scrubber liquid flow rate (measured at the inlet to each wet scrubber), equal to the lowest 4-hour average liquid flow rate measured during the most recent performance test demonstrating compliance with all applicable emission limits. (d) Minimum scrubber liquid pH for each wet scrubber used to meet the sulfur dioxide or hydrogen chloride emission limits in Table 2 or 3 to this subpart, equal to the lowest 1-hour average scrubber liquid pH measured during the most recent performance test demonstrating compliance with the sulfur dioxide and hydrogen chloride emission limits.

(e) Minimum combustion chamber operating temperature (or minimum afterburner temperature), equal to the lowest 4-hour average combustion chamber operating temperature (or afterburner temperature) measured during the most recent performance test demonstrating compliance with all applicable emission limits.

(f) Minimum power input to the electrostatic precipitator collection plates, equal to the lowest 4-hour average secondary electric power measured during the most recent performance test demonstrating compliance with the particulate matter, lead, and cadmium emission limits. Power input must be calculated as the product of the secondary voltage and secondary amperage to the electrostatic precipitator collection plates. Both the secondary voltage and secondary amperage must be recorded during the performance test. (g) Minimum effluent water flow rate at the outlet of the electrostatic precipitator, equal to the lowest 4-hour average effluent water flow rate at the outlet of the electrostatic precipitator measured during the most recent performance test demonstrating compliance with the particulate matter, lead, and cadmium emission limits. (h) For activated carbon injection, establish the site-specific operating limits specified in paragraphs (h)(1) through (h)(3) of this section.

(1) Minimum mercury sorbent injection rate, equal to the lowest 4-hour average mercury sorbent injection rate measured during the most recent performance test demonstrating compliance with the mercury emission limit.

(2) Minimum dioxin/furan sorbent injection rate, equal to the lowest 4-hour average dioxin/furan sorbent injection rate measured during the most recent performance test demonstrating compliance with the dioxin/furan (total mass basis or toxic equivalency basis) emission limit.

(3) Minimum carrier gas flow rate or minimum carrier gas pressure drop, as follows:

(i) Minimum carrier gas flow rate, equal to the lowest 4-hour average carrier gas flow rate measured during the most recent performance test demonstrating compliance with the applicable emission limit.

(ii) Minimum carrier gas pressure drop, equal to the lowest 4-hour average carrier gas flow rate measured during the most recent performance test demonstrating compliance with the applicable emission limit.

§ 60.5195 By what date must I conduct the initial air pollution control device inspection and make any necessary repairs?

(a) You must conduct an air pollution control device inspection according to § 60.5220(c) by the final compliance date under the approved state plan, Federal plan, or delegation, as applicable. For air pollution control devices installed after the final compliance date, you must conduct the air pollution control device inspection within 60 days after installation of the control device.

HeinOnline -- 76 Fed. Reg. 15436 2011

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 473 of 492

(b) Within 10 operating days following the air pollution control device inspection under paragraph (a) of this section, all necessary repairs must be completed unless you obtain written approval from the Administrator establishing a date whereby all necessary repairs of the SSI unit must be completed.

§ 60.5200 How do I develop a site-specific monitoring plan for my continuous monitoring, bag leak detection, and ash handling systems, and by what date must I conduct an initial performance evaluation?

You must develop and submit to the Administrator for approval a site-specific monitoring plan for each continuous monitoring system required under this subpart, according to the requirements in paragraphs (a) through (c) of this section. This requirement also applies to you if you petition the Administrator for alternative monitoring parameters under § 60.13(i) and paragraph (e) of this section. If you use a continuous automated sampling system to comply with the mercury or dioxin/furan (total mass basis or toxic equivalency basis) emission limits, you must develop your monitoring plan as specified in § 60.58b(q), and you are not required to meet the requirements in paragraphs (a) and (b) of this section. You must also submit a site-specific monitoring plan for your ash handling system, as specified in paragraph (d) of this section. You must submit and update your monitoring plans as specified in paragraphs (f) through (h) of this section.

(a) For each continuous monitoring system, your monitoring plan must address the elements and requirements specified in paragraphs (a)(1) through (a)(8) of this section. You must operate and maintain the continuous monitoring system in continuous operation according to the site-specific monitoring plan.

(1) Installation of the continuous monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (*e.g.,* on or downstream of the last control device).

(2) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer and the data collection and reduction systems.

(3) Performance evaluation procedures and acceptance criteria (*e.g.,* calibrations).

(i) For continuous emissions monitoring systems, your performance evaluation and acceptance criteria must include, but is not limited to, the following:

(A) The applicable requirements for continuous emissions monitoring systems specified in § 60.13.

(B) The applicable performance specifications (*e.g.,* relative accuracy tests) in appendix B of this part.

(C) The applicable procedures (*e.g.,* quarterly accuracy determinations and daily calibration drift tests) in appendix F of this part.

(D) A discussion of how the occurrence and duration of out-of-control periods will affect the suitability of CEMS data, where out-of-control has the meaning given in section (a)(7)(i) of this section.

(ii) For continuous parameter monitoring systems, your performance evaluation and acceptance criteria must include, but is not limited to, the following:

(A) If you have an operating limit that requires the use of a flow monitoring system, you must meet the requirements in paragraphs (a)(3)(ii)(A)(*1*) through (*4*) of this section.

(*1*) Install the flow sensor and other necessary equipment in a position that provides a representative flow.

(*2*) Use a flow sensor with a measurement sensitivity of no greater than 2 percent of the expected process flow rate.

(*3*) Minimize the effects of swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(*4*) Conduct a flow monitoring system performance evaluation in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(B) If you have an operating limit that requires the use of a pressure monitoring system, you must meet the requirements in paragraphs (a)(3)(ii)(B)(*1*) through (*6*) of this section.

(*1*) Install the pressure sensor(s) in a position that provides a representative measurement of the pressure (*e.g.,* particulate matter scrubber pressure drop).

(*2*) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(*3*) Use a pressure sensor with a minimum tolerance of 1.27 centimeters of water or a minimum tolerance of 1 percent of the pressure monitoring system operating range, whichever is less.

(*4*) Perform checks at least once each process operating day to ensure pressure measurements are not obstructed (*e.g.,* check for pressure tap pluggage daily).

(*5*) Conduct a performance evaluation of the pressure monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(*6*) If at any time the measured pressure exceeds the manufacturer's specified maximum operating pressure range, conduct a performance evaluation of the pressure monitoring system in accordance with your monitoring plan and confirm that the pressure monitoring system continues to meet the performance requirements in your monitoring plan. Alternatively, install and verify the operation of a new pressure sensor.

(C) If you have an operating limit that requires a pH monitoring system, you must meet the requirements in paragraphs (a)(3)(ii)(C)(*1*) through (*4*) of this section.

(*1*) Install the pH sensor in a position that provides a representative measurement of scrubber effluent pH.

(*2*) Ensure the sample is properly mixed and representative of the fluid to be measured.

(*3*) Conduct a performance evaluation of the pH monitoring system in accordance with your monitoring plan at least once each process operating day.

(*4*) Conduct a performance evaluation (including a two-point calibration with one of the two buffer solutions having a pH within 1 of the operating limit pH level) of the pH monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than quarterly.

(D) If you have an operating limit that requires the use of a temperature measurement device, you must meet the requirements in paragraphs (a)(3)(ii)(D)(*1*) through (*4*) of this section.

(*1*) Install the temperature sensor and other necessary equipment in a position that provides a representative temperature.

(*2*) Use a temperature sensor with a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit), or 1.0 percent of the temperature value, whichever is larger, for a noncryogenic temperature range.

(*3*) Use a temperature sensor with a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit), or 2.5 percent of the temperature value, whichever is larger, for a cryogenic temperature range.

(*4*) Conduct a temperature measurement device performance evaluation at the time of each performance test but no less frequently than annually.

(E) If you have an operating limit that requires a secondary electric power monitoring system for an electrostatic precipitator, you must meet the

HeinOnline -- 76 Fed. Reg. 15437 2011

US EPA ARCHIVE DOCUMENT

requirements in paragraphs (a)(3)(ii)(E)(*1*) and (*2*) of this section.

(*1*) Install sensors to measure (secondary) voltage and current to the electrostatic precipitator collection plates.

(*2*) Conduct a performance evaluation of the electric power monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(F) If you have an operating limit that requires the use of a monitoring system to measure sorbent injection rate (*e.g.,* weigh belt, weigh hopper, or hopper flow measurement device), you must meet the requirements in paragraphs (a)(3)(ii)(F)(*1*) and (*2*) of this section.

(*1*) Install the system in a position(s) that provides a representative measurement of the total sorbent injection rate.

(*2*) Conduct a performance evaluation of the sorbent injection rate monitoring system in accordance with your monitoring plan at the time of each performance test but no less frequently than annually.

(4) Ongoing operation and maintenance procedures in accordance with the general requirements of § 60.11(d).

(5) Ongoing data quality assurance procedures in accordance with the general requirements of § 60.13.

(6) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 60.7(b), (c), (c)(1), (c)(4), (d), (e), (f) and (g).

(7) Provisions for periods when the continuous monitoring system is out of control, as follows:

(i) A continuous monitoring system is out of control if the conditions of paragraph (a)(7)(i)(A) or (a)(7)(i)(B) of this section are met.

(A) The zero (low-level), mid-level (if applicable), or high-level calibration drift exceeds two times the applicable calibration drift specification in the applicable performance specification or in the relevant standard.

(B) The continuous monitoring system fails a performance test audit (*e.g.,* cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit.

(ii) When the continuous monitoring system is out of control as specified in paragraph (a)(7)(i) of this section, you must take the necessary corrective action and must repeat all necessary tests that indicate that the system is out of control. You must take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour you conduct a performance check (*e.g.,* calibration drift) that indicates an exceedance of the performance requirements established under this part. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits.

(8) Schedule for conducting initial and periodic performance evaluations of your continuous monitoring systems.

(b) If a bag leak detection system is used, your monitoring plan must include a description of the following items:

(1) Installation of the bag leak detection system in accordance with paragraphs (b)(1)(i) and (ii) of this section.

(i) Install the bag leak detection sensor(s) in a position(s) that will be representative of the relative or absolute particulate matter loadings for each exhaust stack, roof vent, or compartment (*e.g.,* for a positive pressure fabric filter) of the fabric filter.

(ii) Use a bag leak detection system certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

(2) Initial and periodic adjustment of the bag leak detection system, including how the alarm set-point will be established. Use a bag leak detection system equipped with a system that will sound an alarm when the system detects an increase in relative particulate matter emissions over a preset level. The alarm must be located where it is observed readily and any alert is detected and recognized easily by plant operating personnel.

(3) Evaluations of the performance of the bag leak detection system, performed in accordance with your monitoring plan and consistent with the guidance provided in Fabric Filter Bag Leak Detection Guidance, EPA–454/R–98–015, September 1997 (incorporated by reference, see § 60.17).

(4) Operation of the bag leak detection system, including quality assurance procedures.

(5) Maintenance of the bag leak detection system, including a routine maintenance schedule and spare parts inventory list.

(6) Recordkeeping (including record retention) of the bag leak detection system data. Use a bag leak detection system equipped with a device to continuously record the output signal from the sensor. (c) You must conduct an initial performance evaluation of each continuous monitoring system and bag leak detection system, as applicable, in accordance with your monitoring plan and to § 60.13(c). For the purpose of this subpart, the provisions of § 60.13(c) also apply to the bag leak detection system. You must conduct the initial performance evaluation of each continuous monitoring system within 60 days of installation of the monitoring system

(d) You must submit a monitoring plan specifying the ash handling system operating procedures that you will follow to ensure that you meet the fugitive emissions limit specified in Table 2 or 3 to this subpart.

(e) You may submit an application to the Administrator for approval of alternate monitoring requirements to demonstrate compliance with the standards of this subpart, subject to the provisions of paragraphs (e)(1) through (e)(6) of this section.

(1) The Administrator will not approve averaging periods other than those specified in this section, unless you document, using data or information, that the longer averaging period will ensure that emissions do not exceed levels achieved over the duration of three performance test runs.

(2) If the application to use an alternate monitoring requirement is approved, you must continue to use the original monitoring requirement until approval is received to use another monitoring requirement.

(3) You must submit the application for approval of alternate monitoring requirements no later than the notification of performance test. The application must contain the information specified in paragraphs (e)(3)(i) through (e)(3)(iii) of this section:

(i) Data or information justifying the request, such as the technical or economic infeasibility, or the impracticality of using the required approach.

(ii) A description of the proposed alternative monitoring requirement, including the operating parameter to be monitored, the monitoring approach and technique, the averaging period for the limit, and how the limit is to be calculated.

(iii) Data or information documenting that the alternative monitoring requirement would provide equivalent or better assurance of compliance with the relevant emission standard.

(4) The Administrator will notify you of the approval or denial of the application within 90 calendar days after receipt of the original request, or within 60 calendar days of the receipt of any supplementary information, whichever is later. The Administrator will not approve an alternate monitoring application unless it would provide

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15438 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 475 of 492

equivalent or better assurance of compliance with the relevant emission standard. Before disapproving any alternate monitoring application, the Administrator will provide the following:

(i) Notice of the information and findings upon which the intended disapproval is based.

(ii) Notice of opportunity for you to present additional supporting information before final action is taken on the application. This notice will specify how much additional time is allowed for you to provide additional supporting information.

(5) You are responsible for submitting any supporting information in a timely manner to enable the Administrator to consider the application prior to the performance test. Neither submittal of an application, nor the Administrator's failure to approve or disapprove the application relieves you of the responsibility to comply with any provision of this subpart.

(6) The Administrator may decide at any time, on a case-by-case basis, that additional or alternative operating limits, or alternative approaches to establishing operating limits, are necessary to demonstrate compliance with the emission standards of this subpart.

(f) You must submit your monitoring plans required in paragraphs (a) and (b) of this section at least 60 days before your initial performance evaluation of your continuous monitoring system(s).

(g) You must submit your monitoring plan for your ash handling system, as required in paragraph (d) of this section, at least 60 days before your initial compliance test date.

(h) You must update and resubmit your monitoring plan if there are any changes or potential changes in your monitoring procedures or if there is a process change, as defined in § 60.5250.

Model Rule—Continuous Compliance Requirements

§ 60.5205 How and when do I demonstrate continuous compliance with the emission limits and standards?

To demonstrate continuous compliance with the emission limits and standards specified in Table 2 or 3 to this subpart, use the procedures specified in paragraph (a) of this section. In lieu of using the procedures specified in paragraph (a) of this section, you have the option to demonstrate initial compliance using the procedures specified in paragraph (b) of this section for particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, lead, and fugitive emissions from ash handling. You must meet the requirements of paragraphs (a) and (b) of this section, as applicable, and paragraphs (c) through (e) of this section, according to the performance testing, monitoring, and calibration requirements in § 60.5220(a) and (b). You may also petition the Administrator for alternative monitoring parameters as specified in paragraph (f) of this section.

(a) Demonstrate continuous compliance using a performance test. Except as provided in paragraphs (a)(3) and (e) of this section, following the date that the initial performance test for each pollutant in Table 2 or 3 to this subpart is completed, you must conduct a performance test for each such pollutant on an annual basis (between 11 and 13 calendar months following the previous performance test). The performance test must be conducted using the test methods, averaging methods, and minimum sampling volumes or durations specified in Table 2 or 3 to this subpart and according to the testing, monitoring, and calibration requirements specified in § 60.5220(a).

(1) You may conduct a repeat performance test at any time to establish new values for the operating limits to apply from that point forward. The Administrator may request a repeat performance test at any time.

(2) You must repeat the performance test within 60 days of a process change, as defined in § 60.5250.

(3) Except as specified in paragraphs (a)(1) and (2) of this section, you can conduct performance tests less often for a given pollutant, as specified in paragraphs (a)(3)(i) through (iii) of this section.

(i) You can conduct performance tests less often if your performance tests for the pollutant for at least 2 consecutive years show that your emissions are at or below 75 percent of the emission limit specified in Table 2 or 3 to this subpart, and there are no changes in the operation of the affected source or air pollution control equipment that could increase emissions. In this case, you do not have to conduct a performance test for that pollutant for the next 2 years. You must conduct a performance test during the third year and no more than 37 months after the previous performance test.(ii) If your SSI unit continues to meet the emission limit for the pollutant, you may choose to conduct performance tests for the pollutant every third year if your emissions are at or below 75 percent of the emission limit, and if there are no changes in the operation of the affected source or air pollution control equipment that could increase emissions, but each such performance test must be conducted no more than 37 months after the previous performance test.

(iii) If a performance test shows emissions exceeded 75 percent of the emission limit for a pollutant, you must conduct annual performance tests for that pollutant until all performance tests over 2 consecutive years show compliance.

(b) Demonstrate continuous compliance using a continuous emissions monitoring system or continuous automated sampling system. The option to use a continuous emissions monitoring system for hydrogen chloride, dioxins/furans, cadmium, or lead takes effect on the date a final performance specification applicable to hydrogen chloride, dioxins/furans, cadmium, or lead is published in the **Federal Register**. The option to use a continuous automated sampling system for dioxins/furans takes effect on the date a final performance specification for such a continuous automated sampling system is published in the **Federal Register**. Collect data as specified in § 60.5220(b)(6) and use the following procedures:

(1) To demonstrate continuous compliance with the emission limits for particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, and lead, you may substitute the use of a continuous monitoring system in lieu of conducting the annual performance test required in paragraph (a) of this section, as follows:

(i) You may substitute the use of a continuous emissions monitoring system for any pollutant specified in paragraph (b)(1) of this section in lieu of conducting the annual performance test for that pollutant in paragraph (a) of this section. For determining compliance with the carbon monoxide concentration limit using carbon monoxide CEMS, the correction to 7 percent oxygen does not apply during periods of startup or shutdown. Use the measured carbon monoxide concentration without correcting for oxygen concentration in averaging with other carbon monoxide concentrations (corrected to 7 percent oxygen) to determine the 24-hour average value.

(ii) You may substitute the use of a continuous automated sampling system for mercury or dioxins/furans in lieu of conducting the annual mercury or dioxin/furan performance test in paragraph (a) of this section.

HeinOnline -- 76 Fed. Reg. 15439 2011

US EPA ARCHIVE DOCUMENT

(2) If you use a continuous emissions monitoring system to demonstrate compliance with an applicable emission limit in paragraph (b)(1) of this section, you must use the continuous emissions monitoring system and follow the requirements specified in § 60.5220(b). You must measure emissions according to § 60.13 to calculate 1-hour arithmetic averages, corrected to 7 percent oxygen (or carbon dioxide). You must demonstrate initial compliance using a 24-hour block average of these 1-hour arithmetic average emission concentrations, calculated using Equation 19–19 in section 12.4.1 of Method 19 of 40 CFR part 60, appendix A–7.

(3) If you use a continuous automated sampling system to demonstrate compliance with an applicable emission limit in paragraph (b)(1) of this section, you must:

(i) Use the continuous automated sampling system specified in § 60.58b(p) and (q), and measure and calculate average emissions corrected to 7 percent oxygen (or carbon dioxide) according to § 60.58b(p) and your monitoring plan.

(A) Use the procedures specified in § 60.58b(p) to calculate 24-hour averages to determine compliance with the mercury emission limit in Table 2 to this subpart.

(B) Use the procedures specified in § 60.58b(p) to calculate 2-week averages to determine compliance with the dioxin/furan (total mass basis or toxic equivalency basis) emission limits in Table 2 to this subpart.

(ii) Update your monitoring plan as specified in § 60.4880(e). For mercury continuous automated sampling systems, you must use Performance Specification 12B of appendix B of part 75 and Procedure 5 of appendix F of this part.

(4) Except as provided in paragraph (e) of this section, you must complete your periodic performance evaluations required in your monitoring plan for any continuous emissions monitoring systems and continuous automated sampling systems, according to the schedule specified in your monitoring plan. If you were previously determining compliance by conducting an annual performance test (or according to the less frequent testing for a pollutant as provided in paragraph (a)(3) of this section), you must complete the initial performance evaluation required under your monitoring plan in § 60.5200 for the continuous monitoring system prior to using the continuous emissions monitoring system to demonstrate compliance or continuous automated sampling system. Your performance evaluation must be conducted using the procedures and acceptance criteria specified in § 60.5200(a)(3).

(c) To demonstrate compliance with the dioxins/furans toxic equivalency emission limit in paragraph (a) or (b) of this section, you must determine dioxins/furans toxic equivalency as follows:

(1) Measure the concentration of each dioxin/furan tetra- through octachlorinated-isomer emitted using Method 23 at 40 CFR part 60, appendix A–7.

(2) For each dioxin/furan (tetra- through octachlorinated) isomer measured in accordance with paragraph (c)(1) of this section, multiply the isomer concentration by its corresponding toxic equivalency factor specified in Table 5 to this subpart.

(3) Sum the products calculated in accordance with paragraph (c)(2) of this section to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

(d) You must submit an annual compliance report as specified in § 60.5235(c). You must submit a deviation report as specified in § 60.5235(d) for each instance that you did not meet each emission limit in Table 2 to this subpart.

(e) If you demonstrate continuous compliance using a performance test, as specified in paragraph (a) of this section, then the provisions of this paragraph (e) apply. If a force majeure is about to occur, occurs, or has occurred for which you intend to assert a claim of force majeure, you must notify the Administrator in writing as specified in § 60.5235(g). You must conduct the performance test as soon as practicable after the force majeure occurs. The Administrator will determine whether or not to grant the extension to the performance test deadline, and will notify you in writing of approval or disapproval of the request for an extension as soon as practicable. Until an extension of the performance test deadline has been approved by the Administrator, you remain strictly subject to the requirements of this subpart.

(f) After any initial requests in § 60.5200 for alternative monitoring requirements for initial compliance, you may subsequently petition the Administrator for alternative monitoring parameters as specified in §§ 60.13(i) and 60.5200(e).

§ 60.5210 How do I demonstrate continuous compliance with my operating limits?

You must continuously monitor your operating parameters as specified in paragraph (a) of this section and meet the requirements of paragraphs (b) and (c) of this section, according to the monitoring and calibration requirements in § 60.5225. You must confirm and re-establish your operating limits as specified in paragraph (d) of this section.

(a) You must continuously monitor the operating parameters specified in paragraphs (a)(1) and (a)(2) of this section using the continuous monitoring equipment and according to the procedures specified in § 60.5225 or established in § 60.5175. To determine compliance, you must use the data averaging period specified in Table 4 to this subpart (except for alarm time of the baghouse leak detection system) unless a different averaging period is established under § 60.5175.

(1) You must demonstrate that the SSI unit meets the operating limits established according to §§ 60.5175 and 60.5190 and paragraph (d) of this section for each applicable operating parameter.

(2) You must demonstrate that the SSI unit meets the operating limit for bag leak detection systems as follows:

(i) For a bag leak detection system, you must calculate the alarm time as follows:

(A) If inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted.

(B) If corrective action is required, each alarm time shall be counted as a minimum of 1 hour.

(C) If you take longer than 1 hour to initiate corrective action, each alarm time (*i.e.,* time that the alarm sounds) is counted as the actual amount of time taken by you to initiate corrective action.

(ii) Your maximum alarm time is equal to 5 percent of the operating time during a 6-month period, as specified in § 60.5170(c).

(b) Operation above the established maximum, below the established minimum, or outside the allowable range of the operating limits specified in paragraph (a) of this section constitutes a deviation from your operating limits established under this subpart, except during performance tests conducted to determine compliance with the emission and operating limits or to establish new operating limits. You must submit the deviation report specified in § 60.5235(d) for each instance that you did not meet one of your operating limits established under this subpart.

(c) You must submit the annual compliance report specified in § 60.5235(c) to demonstrate continuous compliance.

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15440 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 477 of 492

(d) You must confirm your operating limits according to paragraph (d)(1) of this section or re-establish operating limits according to paragraph (d)(2) of this section. Your operating limits must be established so as to assure ongoing compliance with the emission limits. These requirements also apply to your operating requirements in your fugitive emissions monitoring plan specified in § 60.5170(d).

(1) Your operating limits must be based on operating data recorded during any performance test required in § 60.5205(a) or any performance evaluation required in § 60.5205(b)(4).

(2) You may conduct a repeat performance test at any time to establish new values for the operating limits to apply from that point forward.

§ 60.5215 By what date must I conduct annual air pollution control device inspections and make any necessary repairs?

(a) You must conduct an annual inspection of each air pollution control device used to comply with the emission limits, according to § 60.5220(c), no later than 12 months following the previous annual air pollution control device inspection.

(b) Within 10 operating days following an air pollution control device inspection, all necessary repairs must be completed unless you obtain written approval from the Administrator establishing a date whereby all necessary repairs of the affected SSI unit must be completed.

Model Rule—Performance Testing, Monitoring, and Calibration Requirements

§ 60.5220 What are the performance testing, monitoring, and calibration requirements for compliance with the emission limits and standards?

You must meet, as applicable, the performance testing requirements specified in paragraph (a) of this section, the monitoring requirements specified in paragraph (b) of this section, the air pollution control device inspections requirements specified in paragraph (c) of this section, and the bypass stack provisions specified in paragraph (d) of this section.

(a) *Performance testing requirements.*

(1) All performance tests must consist of a minimum of three test runs conducted under conditions representative of normal operations, as specified in § 60.8(c). Emissions in excess of the emission limits or standards during periods of startup, shutdown, and malfunction are considered deviations from the applicable emission limits or standards.

(2) You must document that the dry sludge burned during the performance test is representative of the sludge burned under normal operating conditions by:

(i) Maintaining a log of the quantity of sewage sludge burned during the performance test by continuously monitoring and recording the average hourly rate that sewage sludge is fed to the incinerator.

(ii) Maintaining a log of the moisture content of the sewage sludge burned during the performance test by taking grab samples of the sewage sludge fed to the incinerator for each 8 hour period that testing is conducted.

(3) All performance tests must be conducted using the test methods, minimum sampling volume, observation period, and averaging method specified in Table 2 or 3 to this subpart.

(4) Method 1 at 40 CFR part 60, appendix A must be used to select the sampling location and number of traverse points.

(5) Method 3A or 3B at 40 CFR part 60, appendix A–2 must be used for gas composition analysis, including measurement of oxygen concentration. Method 3A or 3B at 40 CFR part 60, appendix A–2 must be used simultaneously with each method.

(6) All pollutant concentrations must be adjusted to 7 percent oxygen using Equation 1 of this section:

$$C_{adj} = C_{meas}(20.9-7)/(20.9-\%O_2) \quad \text{(Eq. 1)}$$

Where:

C_{adj} = Pollutant concentration adjusted to 7 percent oxygen.

C_{meas} = Pollutant concentration measured on a dry basis.

(20.9 − 7) = 20.9 percent oxygen − 7 percent oxygen (defined oxygen correction basis).

20.9 = Oxygen concentration in air, percent.

$\%O_2$ = Oxygen concentration measured on a dry basis, percent.

(7) Performance tests must be conducted and data reduced in accordance with the test methods and procedures contained in this subpart unless the Administrator does one of the following.

(i) Specifies or approves, in specific cases, the use of a method with minor changes in methodology.

(ii) Approves the use of an equivalent method.

(iii) Approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance.

(iv) Waives the requirement for performance tests because you have demonstrated by other means to the Administrator's satisfaction that the affected SSI unit is in compliance with the standard.

(v) Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph is construed to abrogate the Administrator's authority to require testing under section 114 of the Clean Air Act.

(8) You must provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, *etc.*) in conducting the scheduled performance test, you must notify the Administrator as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator by mutual agreement.

(9) You must provide, or cause to be provided, performance testing facilities as follows:

(i) Sampling ports adequate for the test methods applicable to the SSI unit, as follows:

(A) Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures.

(B) Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

(ii) Safe sampling platform(s).

(iii) Safe access to sampling platform(s).

(iv) Utilities for sampling and testing equipment.

(10) Unless otherwise specified in this subpart, each performance test must consist of three separate runs using the applicable test method. Each run must be conducted for the time and under the conditions specified in the applicable standard. Compliance with each

HeinOnline -- 76 Fed. Reg. 15441 2011

US EPA ARCHIVE DOCUMENT

emission limit must be determined by calculating the arithmetic mean of the three runs. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond your control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

(11) During each test run specified in paragraph (a)(1) of this section, you must operate your sewage sludge incinerator at a minimum of 85 percent of your maximum permitted capacity.

(b) *Continuous monitor requirements.* You must meet the following requirements, as applicable, when using a continuous monitoring system to demonstrate compliance with the emission limits in Table 2 or 3 to this subpart. The option to use a continuous emissions monitoring system for hydrogen chloride, dioxins/furans, cadmium, or lead takes effect on the date a final performance specification applicable to hydrogen chloride, dioxins/furans, cadmium, or lead is published in the **Federal Register**. If you elect to use a continuous emissions monitoring system instead of conducting annual performance testing, you must meet the requirements of paragraphs (b)(1) through (b)(6) of this section. If you elect to use a continuous automated sampling system instead of conducting annual performance testing, you must meet the requirements of paragraph (b)(7) of this section. The option to use a continuous automated sampling system for dioxins/furans takes effect on the date a final performance specification for such a continuous automated sampling system is published in the **Federal Register**.

(1) You must notify the Administrator 1 month before starting use of the continuous emissions monitoring system.

(2) You must notify the Administrator 1 month before stopping use of the continuous emissions monitoring system, in which case you must also conduct a performance test within prior to ceasing operation of the system.

(3) You must install, operate, calibrate, and maintain an instrument for continuously measuring and recording the emissions to the atmosphere in accordance with the following:

(i) Section 60.13 of subpart A of this part.

(ii) The following performance specifications of appendix B of this part, as applicable:

(A) For particulate matter, Performance Specification 11 of appendix B of this part.

(B) For hydrogen chloride, Performance Specification 15 of appendix B of this part.

(C) For carbon monoxide, Performance Specification 4B of appendix B of this part with spans appropriate to the applicable emission limit.

(D) [Reserved]

(E) For mercury, Performance Specification 12A of appendix B of this part.

(F) For nitrogen oxides, Performance Specification 2 of appendix B of this part.

(G) For sulfur dioxide, Performance Specification 2 of appendix B of this part.

(iii) For continuous emissions monitoring systems, the quality assurance procedures (*e.g.,* quarterly accuracy determinations and daily calibration drift tests) of appendix F of this part specified in paragraphs (b)(3)(iii)(A) through (b)(3)(iii)(G) of this section. For each pollutant, the span value of the continuous emissions monitoring system is two times the applicable emission limit, expressed as a concentration.

(A) For particulate matter, Procedure 2 in appendix F of this part.

(B) For hydrogen chloride, Procedure 1 in appendix F of this part except that the Relative Accuracy Test Audit requirements of Procedure 1 shall be replaced with the validation requirements and criteria of sections 11.1.1 and 12.0 of Performance Specification 15 of appendix B of this part.

(C) For carbon monoxide, Procedure 1 in appendix F of this part.

(D) [Reserved]

(E) For mercury, Procedures 5 in appendix F of this part.

(F) For nitrogen oxides, Procedure 1 in appendix F of this part.

(G) For sulfur dioxide, Procedure 1 in appendix F of this part.

(iv) If your monitoring system has a malfunction or out-of-control period, you must complete repairs and resume operation of your monitoring system as expeditiously as possible.

(4) During each relative accuracy test run of the continuous emissions monitoring system using the performance specifications in paragraph (b)(3)(ii) of this section, emission data for each regulated pollutant and oxygen (or carbon dioxide as established in (b)(5) of this section) must be collected concurrently (or within a 30- to 60-minute period) by both the continuous emissions monitoring systems and the test methods specified in paragraph (b)(4)(i) through (b)(4)(viii) of this section. Relative accuracy testing must be at representative operating conditions while the SSI unit is charging sewage sludge.

(i) For particulate matter, Method 5 at 40 CFR part 60, appendix A–3 or Method 26A or 29 at 40 CFR part 60, appendix A–8 shall be used.

(ii) For hydrogen chloride, Method 26 or 26A at 40 CFR part 60, appendix A–8, shall be used, as specified in Tables 1 and 2 to this subpart.

(iii) For carbon monoxide, Method 10, 10A, or 10B at 40 CFR part 60, appendix A–4, shall be used.

(iv) For dioxins/furans, Method 23 at 40 CFR part 60, appendix A–7, shall be used.

(v) For mercury, cadmium, and lead, Method 29 at 40 CFR part 60, appendix A–8, shall be used. Alternatively for mercury, either Method 30B at 40 CFR part 60, appendix A–8 or ASTM D6784–02 (Reapproved 2008) (incorporated by reference, see § 60.17), may be used.

(vi) For nitrogen oxides, Method 7 or 7E at 40 CFR part 60, appendix A–4, shall be used.

(vii) For sulfur dioxide, Method 6 or 6C at 40 CFR part 60, appendix A–4, or as an alternative ANSI/ASME PTC 19.10–1981 (incorporated by reference, see § 60.17) must be used. For sources that have actual inlet emissions less than 100 parts per million dry volume, the relative accuracy criterion for the inlet of the sulfur dioxide continuous emissions monitoring system should be no greater than 20 percent of the mean value of the method test data in terms of the units of the emission standard, or 5 parts per million dry volume absolute value of the mean difference between the method and the continuous emissions monitoring system, whichever is greater.

(viii) For oxygen (or carbon dioxide as established in (b)(5) of this section), Method 3A or 3B at 40 CFR part 60, appendix A–2, or as an alternative ANSI/ASME PTC 19.10–1981 (incorporated by reference, see § 60.17), as applicable, must be used.

(5) You may request that compliance with the emission limits be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. If carbon dioxide is selected for use in diluent corrections, the relationship between oxygen and carbon dioxide levels must be established during the initial performance test according to the procedures and methods specified in paragraphs (b)(5)(i)

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15442 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 479 of 492

through (b)(5)(iv) of this section. This relationship may be re-established during subsequent performance tests.

(i) The fuel factor equation in Method 3B at 40 CFR part 60, appendix A–2 must be used to determine the relationship between oxygen and carbon dioxide at a sampling location. Method 3A or 3B at 50 CFR part 60, appendix A–2, or as an alternative ANSI/ASME PTC 19.10–1981 (incorporated by reference, *see* § 60.17), as applicable, must be used to determine the oxygen concentration at the same location as the carbon dioxide monitor.

(ii) Samples must be taken for at least 30 minutes in each hour.

(iii) Each sample must represent a 1-hour average.

(iv) A minimum of three runs must be performed.

(6) You must operate the continuous monitoring system and collect data with the continuous monitoring system as follows:

(i) You must collect data using the continuous monitoring system at all times the affected SSI unit is operating and at the intervals specified in paragraph (b)(6)(ii) of this section, except for periods of monitoring system malfunctions that occur during periods specified in § 60.5200(a)(7)(i), repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments). Any such periods that you do not collect data using the continuous monitoring system constitute a deviation from the monitoring requirements and must be reported in a deviation report.

(ii) You must collect continuous emissions monitoring system data in accordance with § 60.13(e)(2).

(iii) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities must not be included in calculations used to report emissions or operating levels. Any such periods must be reported in a deviation report.

(iv) Any data collected during periods when the monitoring system is out of control as specified in § 60.4880(a)(7)(i), repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or control activities conducted during out-of-control periods must not be included in calculations used to report emissions or operating levels. Any such periods that do not coincide with a monitoring system malfunction as defined in § 60.5250, constitute a deviation from the monitoring requirements and must be reported in a deviation report.

(v) You must use all the data collected during all periods except those periods specified in paragraphs (b)(6)(iii) and (b)(6)(iv) of this section in assessing the operation of the control device and associated control system.

(7) If you elect to use a continuous automated sampling system instead of conducting annual performance testing, you must:

(i) Install, calibrate, maintain, and operate a continuous automated sampling system according to the site-specific monitoring plan developed in § 60.58b(p)(1) through (p)(6), (p)(9), (p)(10), and (q).

(ii) Collect data according to § 60.58b(p)(5) and paragraph (b)(6) of this section.

(c) *Air pollution control device inspections.* You must conduct air pollution control device inspections that include, at a minimum, the following:

(1) Inspect air pollution control device(s) for proper operation.

(2) Generally observe that the equipment is maintained in good operating condition.

(3) Develop a site-specific monitoring plan according to the requirements in § 60.5200. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under § 60.13(i). (d) *Bypass stack.* Use of the bypass stack at any time that sewage sludge is being charged to the SSI unit is an emissions standards deviation for all pollutants listed in Table 2 or 3 to this subpart. The use of the bypass stack during a performance test invalidates the performance test.

§ 60.5225 What are the monitoring and calibration requirements for compliance with my operating limits?

(a) You must install, operate, calibrate, and maintain the continuous parameter monitoring systems according to the requirements in paragraphs (a)(1) and (2) of this section.

(1) Meet the following general requirements for flow, pressure, pH, and operating temperature measurement devices:

(i) You must collect data using the continuous monitoring system at all times the affected SSI unit is operating and at the intervals specified in paragraph (a)(1)(ii) of this section, except for periods of monitoring system malfunctions that occur during periods specified defined in § 60.5200(a)(7)(i), repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments). Any such periods that you do not collect data using the continuous monitoring system constitute a deviation from the monitoring requirements and must be reported in a deviation report.

(ii) You must collect continuous parameter monitoring system data in accordance with § 60.13(e)(2).

(iii) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities must not be included in calculations used to report emissions or operating levels. Any such periods must be reported in your annual deviation report.

(iv) Any data collected during periods when the monitoring system is out of control as specified in § 60.5200(a)(7)(i) must not be included in calculations used to report emissions or operating levels. Any such periods that do not coincide with a monitoring system malfunction, as defined in § 60.5250, constitute a deviation from the monitoring requirements and must be reported in a deviation report.

(v) You must use all the data collected during all periods except those periods specified in paragraphs (a)(1)(iii) and (a)(1)(iv) of this section in assessing the operation of the control device and associated control system.

(vi) Record the results of each inspection, calibration, and validation check.

(2) Operate and maintain your continuous monitoring system according to your monitoring plan required under § 60.4880. Additionally:

(i) For carrier gas flow rate monitors (for activated carbon injection), during the performance test conducted pursuant to § 60.4885, you must demonstrate that the system is maintained within +/ − 5 percent accuracy, according to the procedures in appendix A to part 75 of this chapter.

(ii) For carrier gas pressure drop monitors (for activated carbon injection), during the performance test conducted pursuant to § 60.4885, you must demonstrate that the system is maintained within +/ − 5 percent accuracy.

(b) You must operate and maintain your bag leak detection system in continuous operation according to your monitoring plan required under § 60.4880. Additionally:

(1) For positive pressure fabric filter systems that do not duct all

HeinOnline -- 76 Fed. Reg. 15443 2011

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 480 of 492

compartments of cells to a common stack, a bag leak detection system must be installed in each baghouse compartment or cell.

(2) Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.

(3) You must initiate procedures to determine the cause of every alarm within 8 hours of the alarm, and you must alleviate the cause of the alarm within 24 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:

(i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in particulate matter emissions.

(ii) Sealing off defective bags or filter media.

(iii) Replacing defective bags or filter media or otherwise repairing the control device.

(iv) Sealing off a defective fabric filter compartment.

(v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system.

(vi) Shutting down the process producing the particulate matter emissions.

(c) You must operate and maintain the continuous parameter monitoring systems specified in paragraphs (a) and (b) of this section in continuous operation according to your monitoring plan required under § 60.4880.

(d) If your SSI unit has a bypass stack, you must install, calibrate (to manufacturers' specifications), maintain, and operate a device or method for measuring the use of the bypass stack including date, time, and duration.

Model Rule—Recordkeeping and Reporting

§ 60.5230 What records must I keep?

You must maintain the items (as applicable) specified in paragraphs (a) through (n) of this section for a period of at least 5 years. All records must be available on site in either paper copy or computer-readable format that can be printed upon request, unless an alternative format is approved by the Administrator.

(a) *Date.* Calendar date of each record.

(b) *Increments of progress.* Copies of the final control plan and any additional notifications, reported under § 60.5235.

(c) *Operator Training.* Documentation of the operator training procedures and records specified in paragraphs (c)(1) through (c)(4) of this section. You must make available and readily accessible at the facility at all times for all SSI unit operators the documentation specified in paragraph (c)(1) of this section.

(1) Documentation of the following operator training procedures and information:

(i) Summary of the applicable standards under this subpart.

(ii) Procedures for receiving, handling, and feeding sewage sludge.

(iii) Incinerator startup, shutdown, and malfunction preventative and corrective procedures.

(iv) Procedures for maintaining proper combustion air supply levels.

(v) Procedures for operating the incinerator and associated air pollution control systems within the standards established under this subpart.

(vi) Monitoring procedures for demonstrating compliance with the incinerator operating limits.

(vii) Reporting and recordkeeping procedures.

(viii) Procedures for handling ash.

(ix) A list of the materials burned during the performance test, if in addition to sewage sludge.

(x) For each qualified operator and other plant personnel who may operate the unit according to the provisions of § 60.5155(a), the phone and/or pager number at which they can be reached during operating hours.

(2) Records showing the names of SSI unit operators and other plant personnel who may operate the unit according to the provisions of § 60.5155(a), as follows:

(i) Records showing the names of SSI unit operators and other plant personnel who have completed review of the information in paragraph (c)(1) of this section as required by § 60.5160(b), including the date of the initial review and all subsequent annual reviews.

(ii) Records showing the names of the SSI operators who have completed the operator training requirements under § 60.5130, met the criteria for qualification under § 60.5140, and maintained or renewed their qualification under § 60.5145 or § 60.5150. Records must include documentation of training, including the dates of their initial qualification and all subsequent renewals of such qualifications.

(3) Records showing the periods when no qualified operators were accessible for more than 8 hours, but less than 2 weeks, as required in § 60.5155(a).

(4) Records showing the periods when no qualified operators were accessible for 2 weeks or more along with copies of reports submitted as required in § 60.5155(b).

(d) *Air pollution control device inspections.* Records of the results of initial and annual air pollution control device inspections conducted as specified in §§ 60.5195 and 60.5220(c), including any required maintenance and any repairs not completed within 10 days of an inspection or the timeframe established by the Administrator.

(e) *Performance test reports.*

(1) The results of the initial, annual, and any subsequent performance tests conducted to determine compliance with the emission limits and standards and/or to establish operating limits, as applicable.

(2) Retain a copy of the complete performance test report, including calculations.

(3) Keep a record of the hourly dry sludge feed rate measured during performance test runs as specified in § 60.5220(a)(2)(i).

(4) Keep any necessary records to demonstrate that the performance test was conducted under conditions representative of normal operations, including a record of the moisture content measured as required in § 60.5220(a)(2)(ii) for each grab sample taken of the sewage sludge burned during the performance test.

(f) *Continuous monitoring data.* Records of the following data, as applicable:

(1) For continuous emissions monitoring systems, all 1-hour average concentrations of particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans total mass basis, mercury, nitrogen oxides, sulfur dioxide, cadmium, and lead emissions.

(2) For continuous automated sampling systems, all average concentrations measured for mercury and dioxins/furans total mass basis at the frequencies specified in your monitoring plan.

(3) For continuous parameter monitoring systems:

(i) All 1-hour average values recorded for the following operating parameters, as applicable:

(A) Combustion chamber operating temperature (or afterburner temperature).

(B) If a wet scrubber is used to comply with the rule, pressure drop across each wet scrubber system and liquid flow rate to each wet scrubber used to comply with the emission limit in Table 2 or 3 to this subpart for particulate matter, cadmium, or lead, and scrubber liquid flow rate and scrubber liquid pH for each wet scrubber used to comply with an emission limit in Table 2 or 3 to this subpart for sulfur dioxide or hydrogen chloride.

HeinOnline -- 76 Fed. Reg. 15444 2011

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 481 of 492

(C) If an electrostatic precipitator is used to comply with the rule, secondary voltage of the electrostatic precipitator collection plates and secondary amperage of the electrostatic precipitator collection plates, and effluent water flow rate at the outlet of the wet electrostatic precipitator.

(D) If activated carbon injection is used to comply with the rule, sorbent flow rate and carrier gas flow rate or pressure drop, as applicable.

(ii) All daily average values recorded for the feed rate and moisture content of the sewage sludge fed to the sewage sludge incinerator, monitored and calculated as specified in § 60.5170(f).

(iii) If a fabric filter is used to comply with the rule, the date, time, and duration of each alarm and the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken. You must also record the percent of operating time during each 6-month period that the alarm sounds, calculated as specified in § 60.5210.

(iv) For other control devices for which you must establish operating limits under § 60.5175, you must maintain data collected for all operating parameters used to determine compliance with the operating limits, at the frequencies specified in your monitoring plan.

(g) *Other records for continuous monitoring systems.* You must keep the following records, as applicable:

(1) Keep records of any notifications to the Administrator in § 60.4915(h)(1) of starting or stopping use of a continuous monitoring system for determining compliance with any emissions limit.

(2) Keep records of any requests under § 60.5220(b)(5) that compliance with the emission limits be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen.

(3) If activated carbon injection is used to comply with the rule, the type of sorbent used and any changes in the type of sorbent used.

(h) *Deviation Reports.* Records of any deviation reports submitted under § 60.5235(e) and (f).

(i) *Equipment specifications and operation and maintenance requirements.* Equipment specifications and related operation and maintenance requirements received from vendors for the incinerator, emission controls, and monitoring equipment.

(j) *Inspections, calibrations, and validation checks of monitoring devices.* Records of inspections, calibration, and validation checks of any monitoring devices as required under §§ 60.5220 and 60.5225.

(k) *Monitoring plan and performance evaluations for continuous monitoring systems.* Records of the monitoring plans required under § 60.5200, and records of performance evaluations required under § 60.5205(b)(5).(l) *Less frequent testing.* If, consistent with 60.5205(a)(3), you elect to conduct performance tests less frequently than annually, you must keep annual records that document that your emissions in the two previous consecutive years were at or below 75 percent of the applicable emission limit in Table 1 or 2 to this subpart, and document that there were no changes in source operations or air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past 2 years.

(m) *Use of bypass stack.* Records indicating use of the bypass stack, including dates, times, and durations as required under § 60.5225(d).

(n) If a malfunction occurs, you must keep a record of the information submitted in your annual report in § 60.5235(c)(16).

§ 60.5235 What reports must I submit?

You must submit the reports specified in paragraphs (a) through (i) of this section. See Table 6 to this subpart for a summary of these reports.

(a) *Increments of progress report.* If you plan to achieve compliance more than 1 year following the effective date of state plan approval, you must submit the following reports, as applicable:

(1) A final control plan as specified in §§ 60.5085(a) and 60.5110.

(2) You must submit your notification of achievement of increments of progress no later than 10 business days after the compliance date for the increment as specified in §§ 60.5095 and 60.5100.

(3) If you fail to meet an increment of progress, you must submit a notification to the Administrator postmarked within 10 business days after the date for that increment, as specified in § 60.5105.

(4) If you plan to close your SSI unit rather than comply with the state plan, submit a closure notification as specified in § 60.5125.

(b) *Initial compliance report.* You must submit the following information no later than 60 days following the initial performance test.

(1) Company name, physical address, and mailing address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report.

(4) The complete test report for the initial performance test results obtained by using the test methods specified in Table 2 or 3 to this subpart.

(5) If an initial performance evaluation of a continuous monitoring system was conducted, the results of that initial performance evaluation.

(6) The values for the site-specific operating limits established pursuant to §§ 60.5170 and 60.5175 and the calculations and methods, as applicable, used to establish each operating limit.

(7) If you are using a fabric filter to comply with the emission limits, documentation that a bag leak detection system has been installed and is being operated, calibrated, and maintained as required by § 60.5170(b).

(8) The results of the initial air pollution control device inspection required in § 60.5195, including a description of repairs.

(9) The site-specific monitoring plan required under § 60.5200, at least 60 days before your initial performance evaluation of your continuous monitoring system.

(10) The site-specific monitoring plan for your ash handling system required under § 60.5200, at least 60 days before your initial performance test to demonstrate compliance with your fugitive ash emission limit.

(c) *Annual compliance report.* You must submit an annual compliance report that includes the items listed in paragraphs (c)(1) through (c)(16) of this section for the reporting period specified in paragraph (c)(3) of this section. You must submit your first annual compliance report no later than 12 months following the submission of the initial compliance report in paragraph (b) of this section. You must submit subsequent annual compliance reports no more than 12 months following the previous annual compliance report. (You may be required to submit these reports (or additional compliance information) more frequently by the title V operating permit required in § 60.5240.)

(1) Company name, physical address, and mailing address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) If a performance test was conducted during the reporting period, the results of that performance test.

(i) If operating limits were established during the performance test, include the value for each operating limit and, as applicable, the method used to establish each operating limit, including calculations.

HeinOnline -- 76 Fed. Reg. 15445 2011

US EPA ARCHIVE DOCUMENT

(ii) If activated carbon is used during the performance test, include the type of activated carbon used.

(5) For each pollutant and operating parameter recorded using a continuous monitoring system, the highest average value and lowest average value recorded during the reporting period, as follows:

(i) For continuous emission monitoring systems and continuous automated sampling systems, report the highest and lowest 24-hour average emission value.

(ii) For continuous parameter monitoring systems, report the following values:

(A) For all operating parameters except scrubber liquid pH, the highest and lowest 12-hour average values.

(B) For scrubber liquid pH, the highest and lowest 3-hour average values.

(6) If there are no deviations during the reporting period from any emission limit, emission standard, or operating limit that applies to you, a statement that there were no deviations from the emission limits, emission standard, or operating limits.

(7) Information for bag leak detection systems recorded under § 60.5230(f)(3)(iii).

(8) If a performance evaluation of a continuous monitoring system was conducted, the results of that performance evaluation. If new operating limits were established during the performance evaluation, include your calculations for establishing those operating limits.

(9) If you elect to conduct performance tests less frequently as allowed in § 60.5205(a)(3) and did not conduct a performance test during the reporting period, you must include the dates of the last two performance tests, a comparison of the emission level you achieved in the last two performance tests to the 75 percent emission limit threshold specified in § 60.5205(a)(3), and a statement as to whether there have been any process changes and whether the process change resulted in an increase in emissions.

(10) Documentation of periods when all qualified sewage sludge incineration unit operators were unavailable for more than 8 hours, but less than 2 weeks.

(11) Results of annual air pollution control device inspections recorded under § 60.5230(d) for the reporting period, including a description of repairs.

(12) If there were no periods during the reporting period when your continuous monitoring systems had a malfunction, a statement that there were no periods during which your continuous monitoring systems had a malfunction.

(13) If there were no periods during the reporting period when a continuous monitoring system was out of control, a statement that there were no periods during which your continuous monitoring systems were out of control.

(14) If there were no operator training deviations, a statement that there were no such deviations during the reporting period.

(15) If you did not make revisions to your site-specific monitoring plan during the reporting period, a statement that you did not make any revisions to your site-specific monitoring plan during the reporting period. If you made revisions to your site-specific monitoring plan during the reporting period, a copy of the revised plan.

(16) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction that occurred during the reporting period and that caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 60.11(d), including actions taken to correct a malfunction.

(d) *Deviation reports.*

(1) You must submit a deviation report if:

(i) Any recorded operating parameter level, based on the averaging time specified in Table 4 to this subpart, is above the maximum operating limit or below the minimum operating limit established under this subpart.

(ii) The bag leak detection system alarm sounds for more than 5 percent of the operating time for the 6-month reporting period.

(iii) Any recorded 24-hour block average emissions level is above the emission limit, if a continuous monitoring system is used to comply with an emission limit.

(iv) There are visible emissions of combustion ash from an ash conveying system for more than 5 percent of the hourly observation period.

(v) A performance test was conducted that deviated from any emission limit in Table 2 or 3 to this subpart.

(vi) A continuous monitoring system was out of control.

(vii) You had a malfunction (*e.g.,* continuous monitoring system malfunction) that caused or may have caused any applicable emission limit to be exceeded.

(2) The deviation report must be submitted by August 1 of that year for data collected during the first half of the calendar year (January 1 to June 30), and by February 1 of the following year for data you collected during the second half of the calendar year (July 1 to December 31).

(3) For each deviation where you are using a continuous monitoring system to comply with an associated emission limit or operating limit, report the items described in paragraphs (d)(3)(i) through (d)(3)(viii) of this section.

(i) Company name, physical address, and mailing address.

(ii) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(iii) The calendar dates and times your unit deviated from the emission limits, emission standards, or operating limits requirements.

(iv) The averaged and recorded data for those dates.

(v) Duration and cause of each deviation from the following:

(A) Emission limits, emission standards, operating limits, and your corrective actions.

(B) Bypass events and your corrective actions.

(vi) Dates, times, and causes for monitor downtime incidents.

(vii) A copy of the operating parameter monitoring data during each deviation and any test report that documents the emission levels.

(viii) If there were periods during which the continuous monitoring system malfunctioned or was out of control, you must include the following information for each deviation from an emission limit or operating limit:

(A) The date and time that each malfunction started and stopped.

(B) The date, time, and duration that each continuous monitoring system was inoperative, except for zero (low-level) and high-level checks.

(C) The date, time, and duration that each continuous monitoring system was out of control, including start and end dates and hours and descriptions of corrective actions taken.

(D) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction, during a period when the system as out of control, or during another period.

(E) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(F) A breakdown of the total duration of the deviations during the reporting

US EPA ARCHIVE DOCUMENT

HeinOnline -- 76 Fed. Reg. 15446 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 483 of 492

period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(G) A summary of the total duration of continuous monitoring system downtime during the reporting period, and the total duration of continuous monitoring system downtime as a percent of the total operating time of the SSI unit at which the continuous monitoring system downtime occurred during that reporting period.

(H) An identification of each parameter and pollutant that was monitored at the SSI unit.

(I) A brief description of the SSI unit.

(J) A brief description of the continuous monitoring system.

(K) The date of the latest continuous monitoring system certification or audit.

(L) A description of any changes in continuous monitoring system, processes, or controls since the last reporting period.

(4) For each deviation where you are not using a continuous monitoring system to comply with the associated emission limit or operating limit, report the following items:.

(i) Company name, physical address, and mailing address.

(ii) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

(iii) The total operating time of each affected source during the reporting period.

(iv) The calendar dates and times your unit deviated from the emission limits, emission standards, or operating limits requirements.

(v) The averaged and recorded data for those dates.

(vi) Duration and cause of each deviation from the following:

(A) Emission limits, emission standards, operating limits, and your corrective actions.

(B) Bypass events and your corrective actions.

(vii) A copy of any performance test report that showed a deviation from the emission limits or standards.

(viii) A brief description of any malfunction reported in paragraph (d)(1)(vii) of this section, including a description of actions taken during the malfunction to minimize emissions in accordance with § 60.11(d) and to correct the malfunction.

(e) *Qualified operator deviation.*

(1) If all qualified operators are not accessible for 2 weeks or more, you must take the two actions in paragraphs (e)(1)(i) and (e)(1)(ii) of this section.

(i) Submit a notification of the deviation within 10 days that includes the three items in paragraphs (e)(1)(i)(A) through (e)(1)(i)(C) of this section.

(A) A statement of what caused the deviation.

(B) A description of actions taken to ensure that a qualified operator is accessible.

(C) The date when you anticipate that a qualified operator will be available.

(ii) Submit a status report to the Administrator every 4 weeks that includes the three items in paragraphs (e)(1)(ii)(A) through (e)(1)(ii)(C) of this section.

(A) A description of actions taken to ensure that a qualified operator is accessible.

(B) The date when you anticipate that a qualified operator will be accessible.

(C) Request for approval from the Administrator to continue operation of the SSI unit.

(2) If your unit was shut down by the Administrator, under the provisions of § 60.5155(b)(2)(i), due to a failure to provide an accessible qualified operator, you must notify the Administrator within five days of meeting § 60.5155(b)(2)(ii) that you are resuming operation.

(f) *Notification of a force majeure.* If a force majeure is about to occur, occurs, or has occurred for which you intend to assert a claim of force majeure:

(1) You must notify the Administrator, in writing as soon as practicable following the date you first knew, or through due diligence, should have known that the event may cause or caused a delay in conducting a performance test beyond the regulatory deadline, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification must occur as soon as practicable.

(2) You must provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in conducting the performance test beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which you propose to conduct the performance test.

(g) *Other notifications and reports required.* You must submit other notifications as provided by § 60.7 and as follows:

(1) You must notify the Administrator 1 month before starting or stopping use of a continuous monitoring system for determining compliance with any emission limit.

(2) You must notify the Administrator at least 30 days prior to any performance test conducted to comply with the provisions of this subpart, to afford the Administrator the opportunity to have an observer present.

(3) As specified in § 60.5220(a)(8), you must notify the Administrator at least 7 days prior to the date of a rescheduled performance test for which notification was previously made in paragraph (g)(2) of this section.

(h) *Report submission form.*

(1) Submit initial, annual, and deviation reports electronically or in paper format, postmarked on or before the submittal due dates.

(2) As of January 1, 2012 and within 60 days after the date of completing each performance test, as defined in § 63.2, conducted to demonstrate compliance with this subpart, you must submit relative accuracy test audit (*i.e.,* reference method) data and performance test (*i.e.,* compliance test) data, except opacity data, electronically to EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) (*see http://www.epa.gov/ttn/chief/ert/ert_tool.html/*) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database.

(i) *Changing report dates.* If the Administrator agrees, you may change the semiannual or annual reporting dates. See § 60.19(c) for procedures to seek approval to change your reporting date.

Model Rule—Title V Operating Permits

§ 60.5240 Am I required to apply for and obtain a Title V operating permit for my existing SSI unit?

Yes, if you are subject to an applicable EPA-approved and effective CAA section 111(d)/129 state or tribal plan or an applicable and effective Federal plan, you are required to apply for and obtain a Title **V** operating permit for your existing SSI unit unless you meet the relevant requirements for an exemption specified in § 60.5065.

§ 60.5245 When must I submit a title V permit application for my existing SSI unit?

(a) If your existing SSI unit is not subject to an earlier permit application deadline, a complete title **V** permit application must be submitted on or before the earlier of the dates specified in paragraphs (a)(1) through (a)(3) of this section. (See sections 129 (e), 503(c), 503(d), and 502(a) of the Clean Air Act and 40 CFR 70.5(a)(1)(i) and 40 CFR 71.5(a)(1)(i)).

(1) 12 months after the effective date of any applicable EPA-approved Clean

HeinOnline -- 76 Fed. Reg. 15447 2011

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 484 of 492

Air Act section 111(d)/129 state or tribal plan.

(2) 12 months after the effective date of any applicable Federal plan.

(3) March 21, 2014.

(b) For any existing unit not subject to an earlier permit application deadline, the application deadline of 36 months after the promulgation of this subpart applies regardless of whether or when any applicable Federal plan is effective, or whether or when any applicable Clean Air Act section 111(d)/129 state or tribal plan is approved by EPA and becomes effective.

(c) If your existing unit is subject to title V as a result of some triggering requirement(s) other than those specified in paragraphs (a) and (b) of this section (for example, a unit may be a major source or part of a major source), then your unit may be required to apply for a title V permit prior to the deadlines specified in paragraphs (a) and (b). If more than one requirement triggers a source's obligation to apply for a title V permit, the 12-month timeframe for filing a title V permit application is triggered by the requirement which first causes the source to be subject to title V. (See section 503(c) of the Clean Air Act and 40 CFR 70.3(a) and (b), 40 CFR 70.5(a)(1)(i), 40 CFR 71.3(a) and (b), and 40 CFR 71.5(a)(1)(i).)

(d) A "complete" title V permit application is one that has been determined or deemed complete by the relevant permitting authority under section 503(d) of the Clean Air Act and 40 CFR 70.5(a)(2) or 40 CFR 71.5(a)(2). You must submit a complete permit application by the relevant application deadline in order to operate after this date in compliance with Federal law. (*See* sections 503(d) and 502(a) of the Clean Air Act and 40 CFR 70.7(b) and 40 CFR 71.7(b).)

Model Rule-Definitions

§ 60.5250 What definitions must I know?

Terms used but not defined in this subpart are defined in the Clean Air Act and § 60.2.

Administrator means:

(1) For units covered by the Federal plan, the Administrator of the EPA or his/her authorized representative.

(2) For units covered by an approved state plan, the director of the state air pollution control agency or his/her authorized representative.

Affected source means a sewage sludge incineration unit as defined in § 60.5250.

Affirmative defense means, in the context of an enforcement proceeding, a response or defense put forward by a defendant, regarding which the defendant has the burden of proof, and the merits of which are independently and objectively evaluated in a judicial or administrative proceeding.

Auxiliary fuel means natural gas, liquefied petroleum gas, fuel oil, or diesel fuel.

Bag leak detection system means an instrument that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter (*i.e.,* baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.

Bypass stack means a device used for discharging combustion gases to avoid severe damage to the air pollution control device or other equipment.

Calendar year means 365 consecutive days starting on January 1 and ending on December 31.

Continuous automated sampling system means the total equipment and procedures for automated sample collection and sample recovery/analysis to determine a pollutant concentration or emission rate by collecting a single integrated sample(s) or multiple integrated sample(s) of the pollutant (or diluent gas) for subsequent on- or off-site analysis; integrated sample(s) collected are representative of the emissions for the sample time as specified by the applicable requirement.

Continuous emissions monitoring system means a monitoring system for continuously measuring and recording the emissions of a pollutant from an affected facility.

Continuous monitoring system (CMS) means a continuous emissions monitoring system, continuous automated sampling system, continuous parameter monitoring system or other manual or automatic monitoring that is used for demonstrating compliance with an applicable regulation on a continuous basis as defined by this subpart. The term refers to the total equipment used to sample and condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters.

Continuous parameter monitoring system means a monitoring system for continuously measuring and recording operating conditions associated with air pollution control device systems (*e.g.,* operating temperature, pressure, and power).

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limit, operating limit, or operator qualification and accessibility requirements.

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit.

Dioxins/furans means tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans.

Electrostatic precipitator or wet electrostatic precipitator means an air pollution control device that uses both electrical forces and, if applicable, water to remove pollutants in the exit gas from a sewage sludge incinerator stack.

Existing sewage sludge incineration unit means a sewage sludge incineration unit the construction of which is commenced on or before October 14, 2010.

Fabric filter means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse.

Fluidized bed incinerator means an enclosed device in which organic matter and inorganic matter in sewage sludge are combusted in a bed of particles suspended in the combustion chamber gas.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused, in part, by poor maintenance or careless operation are not malfunctions.

Modification means a change to an existing SSI unit later than September 21, 2011 and that meets one of two criteria:

(1) The cumulative cost of the changes over the life of the unit exceeds 50 percent of the original cost of building and installing the SSI unit (not including the cost of land) updated to current costs (current dollars). To determine what systems are within the boundary of the SSI unit used to calculate these costs, see the definition of SSI unit.

(2) Any physical change in the SSI unit or change in the method of operating it that increases the amount of any air pollutant emitted for which section 129 or section 111 of the Clean Air Act has established standards.

Modified sewage sludge incineration unit means an existing SSI unit that

HeinOnline -- 76 Fed. Reg. 15448 2011

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 485 of 492

undergoes a modification, as defined in this section.

Multiple hearth incinerator means a circular steel furnace that contains a number of solid refractory hearths and a central rotating shaft; rabble arms that are designed to slowly rake the sludge on the hearth are attached to the rotating shaft. Dewatered sludge enters at the top and proceeds downward through the furnace from hearth to hearth, pushed along by the rabble arms.

Operating day means a 24-hour period between 12:00 midnight and the following midnight during which any amount of sewage sludge is combusted at any time in the SSI unit.

Particulate matter means filterable particulate matter emitted from SSI units as measured by Method 5 at 40 CFR part 60, appendix A–3 or Methods 26A or 29 at 40 CFR part 60, appendix A–8.

Power input to the electrostatic precipitator means the product of the test-run average secondary voltage and the test-run average secondary amperage to the electrostatic precipitator collection plates.

Process change means a significant permit revision, but only with respect to those pollutant-specific emission units for which the proposed permit revision is applicable, including but not limited to:

(1) A change in the process employed at the wastewater treatment facility associated with the affected SSI unit (*e.g.,* the addition of tertiary treatment at the facility, which changes the method used for disposing of process solids and processing of the sludge prior to incineration).

(2) A change in the air pollution control devices used to comply with the emission limits for the affected SSI unit (*e.g.,* change in the sorbent used for activated carbon injection).

Sewage sludge means solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incineration unit or grit and screenings generated during preliminary treatment of domestic sewage in a treatment works.

Sewage sludge feed rate means the rate at which sewage sludge is fed into the incinerator unit.

Sewage sludge incineration (SSI) unit means an incineration unit combusting sewage sludge for the purpose of reducing the volume of the sewage sludge by removing combustible matter. Sewage sludge incineration unit designs include fluidized bed and multiple hearth. A SSI unit also includes, but is not limited to, the sewage sludge feed system, auxiliary fuel feed system, grate system, flue gas system, waste heat recovery equipment, if any, and bottom ash system. The SSI unit includes all ash handling systems connected to the bottom ash handling system. The combustion unit bottom ash system ends at the truck loading station or similar equipment that transfers the ash to final disposal. The SSI unit does not include air pollution control equipment or the stack.

Shutdown means the period of time after all sewage sludge has been combusted in the primary chamber.

Solid waste means any garbage, refuse, sewage sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (33 U.S.C. 1342), or source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954, as amended (42 U.S.C. 2014).

Standard conditions, when referring to units of measure, means a temperature of 68 °F (20 °C) and a pressure of 1 atmosphere (101.3 kilopascals).

Startup means the period of time between the activation, including the firing of fuels (*e.g.,* natural gas or distillate oil), of the system and the first feed to the unit.

Toxic equivalency means the product of the concentration of an individual dioxin isomer in an environmental mixture and the corresponding estimate of the compound-specific toxicity relative to tetrachlorinated dibenzo-p-dioxin, referred to as the toxic equivalency factor for that compound. Table 5 to this subpart lists the toxic equivalency factors.

Wet scrubber means an add-on air pollution control device that utilizes an aqueous or alkaline scrubbing liquid to collect particulate matter (including nonvaporous metals and condensed organics) and/or to absorb and neutralize acid gases.

You means the owner or operator of an affected SSI unit.

TABLE 1 TO SUBPART MMMM OF PART 60—MODEL RULE—INCREMENTS OF PROGRESS AND COMPLIANCE SCHEDULES FOR EXISTING SEWAGE SLUDGE INCINERATION UNITS

Comply with these increments of progress	By these dates [a]
Increment 1—Submit final control plan.	(Dates to be specified in state plan)
Increment 2—Final compliance.	(Dates to be specified in state plan) [b]

[a] Site-specific schedules can be used at the discretion of the state.

[b] The date can be no later than 3 years after the effective date of state plan approval or March 21, 2016 for SSI units that commenced construction on or before October 14, 2010.

TABLE 2 TO SUBPART MMMM OF PART 60—MODEL RULE—EMISSION LIMITS AND STANDARDS FOR EXISTING FLUIDIZED BED SEWAGE SLUDGE INCINERATION UNITS

For the air pollutant	You must meet this emission limit [a]	Using these averaging methods and minimum sampling volumes or durations	And determining compliance using this method
Particulate matter	18 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meters sample per run).	Performance test (Method 5 at 40 CFR part 60, appendix A–3; Method 26A or Method 29 at 40 CFR part 60, appendix A–8).
Hydrogen chloride	0.51 parts per million by dry volume	3-run average (Collect a minimum volume of 1 dry standard cubic meters per run).	Performance test (Method 26A at 40 CFR part 60, appendix A–8).

HeinOnline -- 76 Fed. Reg. 15449 2011

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 486 of 492

TABLE 2 TO SUBPART MMMM OF PART 60—MODEL RULE—EMISSION LIMITS AND STANDARDS FOR EXISTING FLUIDIZED BED SEWAGE SLUDGE INCINERATION UNITS—Continued

For the air pollutant	You must meet this emission limit [a]	Using these averaging methods and minimum sampling volumes or durations	And determining compliance using this method
Carbon monoxide	64 parts per million by dry volume	3-run average (collect sample for a minimum duration of one hour per run).	Performance test (Method 10, 10A, or 10B at 40 CFR part 60, appendix A–4).
Dioxins/furans (total mass basis); or Dioxins/furans (toxic equivalency basis) [b]	1.2 nanograms per dry standard cubic meter (total mass basis); or 0.10 nanograms per dry standard cubic meter (toxic equivalency basis).	3-run average (collect a minimum volume of 1 dry standard cubic meters per run).	Performance test (Method 23 at 40 CFR part 60, appendix A–7).
Mercury	0.037 milligrams per dry standard cubic meter.	3-run average (For Method 29 and ASTM D6784–02 (Reapproved 2008) [c], collect a minimum volume of 1 dry standard cubic meters per run. For Method 30B, collect a minimum sample as specified in Method 30B at 40 CFR part 60, appendix A–8).	Performance test (Method 29 at 40 CFR part 60, appendix A–8; Method 30B at 40 CFR part 60, appendix A–8; or ASTM D6784–02 (Reapproved 2008).[c]
Oxides of nitrogen	150 parts per million by dry volume	3-run average (Collect sample for a minimum duration of one hour per run).	Performance test (Method 7 or 7E at 40 CFR part 60, appendix A–4).
Sulfur dioxide	15 parts per million by dry volume	3-run average (For Method 6, collect a minimum volume of 60 liters per run. For Method 6C, collect sample for a minimum duration of one hour per run).	Performance test (Method 6 or 6C at 40 CFR part 40, appendix A–4; or ANSI/ASME PTC–19.10–1981.[c]
Cadmium	0.0016 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meters per run).	Performance test (Method 29 at 40 CFR part 60, appendix A–8). Use GFAAS or ICP/MS for the analytical finish.
Lead	0.0074 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meters sample per run).	Performance test (Method 29 at 40 CFR part 60, appendix A–8. Use GFAAS or ICP/MS for the analytical finish.
Fugitive emissions from ash handling.	Visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) for no more than 5 percent of the hourly observation period.	Three 1-hour observation periods	Visible emission test (Method 22 of appendix A–7 of this part).

[a] All emission limits are measured at 7 percent oxygen, dry basis at standard conditions.
[b] You have the option to comply with either the dioxin/furan emission limit on a total mass basis or the dioxin/furan emission limit on a toxic equivalency basis.
[c] Incorporated by reference, *see* § 60.17.

TABLE 3 TO SUBPART MMMM OF PART 60—MODEL RULE—EMISSION LIMITS AND STANDARDS FOR EXISTING MULTIPLE HEARTH SEWAGE SLUDGE INCINERATION UNITS

For the air pollutant	You must meet this emission limit [a]	Using these averaging methods and minimum sampling volumes or durations	And determining compliance using this method
Particulate matter	80 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 0.75 dry standard cubic meters per run).	Performance test (Method 5 at 40 CFR part 60, appendix A–3; Method 26A or Method 29 at 40 CFR part 60, appendix A–8).
Hydrogen chloride	1.2 parts per million by dry volume	3-run average (For Method 26, collect a minimum volume of 200 liters per run. For Method 26A, collect a minimum volume of 1 dry standard cubic meters per run).	Performance test (Method 26 or 26A at 40 CFR part 60, appendix A–8).
Carbon monoxide	3,800 parts per million by dry volume	3-run average (collect sample for a minimum duration of one hour per run).	Performance test (Method 10, 10A, or 10B at 40 CFR part 60, appendix A–4).
Dioxins/furans (total mass basis).	5.0 nanograms per dry standard cubic meter; or	3-run average (collect a minimum volume of 1 dry standard cubic meters per run).	Performance test (Method 23 at 40 CFR part 60, appendix A–7).
Dioxins/furans (toxic equivalency basis) [b].	0.32 nanograms per dry standard cubic meter.		

HeinOnline -- 76 Fed. Reg. 15450 2011

US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 487 of 492

TABLE 3 TO SUBPART MMMM OF PART 60—MODEL RULE—EMISSION LIMITS AND STANDARDS FOR EXISTING MULTIPLE HEARTH SEWAGE SLUDGE INCINERATION UNITS—Continued

For the air pollutant	You must meet this emission limit [a]	Using these averaging methods and minimum sampling volumes or durations	And determining compliance using this method
Mercury	0.28 milligrams per dry standard cubic meter.	3-run average (For Method 29 and ASTM D6784–02 (Reapproved 2008),[c] collect a minimum volume of 1 dry standard cubic meters per run. For Method 30B, collect a minimum sample as specified in Method 30B at 40 CFR part 60, appendix A–8).	Performance test (Method 29 at 40 CFR part 60, appendix A–8; Method 30B at 40 CFR part 60, appendix A–8; or ASTM D6784–02 (Reapproved 2008)).[c]
Oxides of nitrogen	220 parts per million by dry volume	3-run average (Collect sample for a minimum duration of one hour per run).	Performance test (Method 7 or 7E at 40 CFR part 60, appendix A–4).
Sulfur dioxide	26 parts per million by dry volume	3-run average (For Method 6, collect a minimum volume of 200 liters per run. For Method 6C, collect sample for a minimum duration of one hour per run).	Performance test (Method 6 or 6C at 40 CFR part 40, appendix A–4; or ANSI/ASME PTC 19.10–1981).[c]
Cadmium	0.095 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meters per run).	Performance test (Method 29 at 40 CFR part 60, appendix A–8).
Lead	0.30 milligrams per dry standard cubic meter.	3-run average (collect a minimum volume of 1 dry standard cubic meters per run).	Performance test (Method 29 at 40 CFR part 60, appendix A–8).
Fugitive emissions from ash handling.	Visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) for no more than 5 percent of the hourly observation period.	Three 1-hour observation periods	Visible emission test (Method 22 of appendix A–7 of this part).

[a] All emission limits are measured at 7 percent oxygen, dry basis at standard conditions.
[b] You have the option to comply with either the dioxin/furan emission limit on a total mass basis or the dioxin/furan emission limit on a toxic equivalency basis.
[c] Incorporated by reference, *see* § 60.17.

TABLE 4 TO SUBPART MMMM OF PART 60—MODEL RULE—OPERATING PARAMETERS FOR EXISTING SEWAGE SLUDGE INCINERATION UNITS [a]

For these operating parameters	You must establish these operating limits	And monitor using these minimum frequencies		
		Data measurement	Data recording [b]	Data averaging period for compliance
All sewage sludge incineration units				
Combustion chamber operating temperature (not required if afterburner temperature is monitored).	Minimum combustion chamber operating temperature or afterburner temperature.	Continuous	Every 15 minutes	12-hour block.
Fugitive emissions from ash handling	Site-specific operating requirements	Not applicable	No applicable	Not applicable.
Scrubber				
Pressure drop across each wet scrubber.	Minimum pressure drop	Continuous	Every 15 minutes	12-hour block.
Scrubber liquid flow rate	Minimum flow rate	Continuous	Every 15 minutes	12-hour block.
Scrubber liquid pH	Minimum pH	Continuous	Every 15 minutes	3-hour block.
Fabric Filter				
Alarm time of the bag leak detection system alarm.	Maximum alarm time of the bag leak detection system alarm (this operating limit is provided in § 60.4850 and is not established on a site-specific basis)			
Electrostatic precipitator				
Secondary voltage of the electrostatic precipitator collection plates.	Minimum power input to the electrostatic precipitator collection plates.	Continuous	Hourly	12-hour block.
Secondary amperage of the electrostatic precipitator collection plates.				

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TABLE 4 TO SUBPART MMMM OF PART 60—MODEL RULE—OPERATING PARAMETERS FOR EXISTING SEWAGE SLUDGE INCINERATION UNITS [a]—Continued

For these operating parameters	You must establish these operating limits	And monitor using these minimum frequencies		
		Data measurement	Data recording [b]	Data averaging period for compliance
Effluent water flow rate at the outlet of the electrostatic precipitator.	Minimum effluent water flow rate at the outlet of the electrostatic precipitator.	Hourly	Hourly	12-hour block.
Activated carbon injection				
Mercury sorbent injection rate	Minimum mercury sorbent injection rate.	Hourly	Hourly	12-hour block.
Dioxin/furan sorbent injection rate	Minimum dioxin/furan sorbent injection rate.			
Carrier gas flow rate or carrier gas pressure drop.	Minimum carrier gas flow rate or minimum carrier gas pressure drop.	Continuous	Every 15 minutes	12-hour block.
Afterburner				
Temperature of the afterburner combustion chamber.	Minimum temperature of the afterburner combustion chamber.	Continuous	Every 15 minutes	12-hour block.

[a] As specified in § 60.5190, you may use a continuous emissions monitoring system or continuous automated sampling system in lieu of establishing certain operating limits.

[b] This recording time refers to the minimum frequency that the continuous monitor or other measuring device initially records data. For all data recorded every 15 minutes, you must calculate hourly arithmetic averages. For all parameters, you use hourly averages to calculate the 12-hour or 3-hour block average specified in this table for demonstrating compliance. You maintain records of 1-hour averages.

TABLE 5 TO SUBPART MMMM OF PART 60—MODEL RULE—TOXIC EQUIVALENCY FACTORS

Dioxin/furan isomer	Toxic equivalency factor
2,3,7,8-tetrachlorinated dibenzo-p-dioxin	1
1,2,3,7,8-pentachlorinated dibenzo-p-dioxin	1
1,2,3,4,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,7,8,9-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,6,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzo-p-dioxin	0.01
octachlorinated dibenzo-p-dioxin	0.0003
2,3,7,8-tetrachlorinated dibenzofuran	0.1
2,3,4,7,8-pentachlorinated dibenzofuran	0.3
1,2,3,7,8-pentachlorinated dibenzofuran	0.03
1,2,3,4,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,6,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,7,8,9-hexachlorinated dibenzofuran	0.1
2,3,4,6,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzofuran	0.01
1,2,3,4,7,8,9-heptachlorinated dibenzofuran	0.01
octachlorinated dibenzofuran	0.0003

TABLE 6 TO SUBPART MMMM OF PART 60—MODEL RULE—SUMMARY OF REPORTING REQUIREMENTS FOR EXISTING SEWAGE SLUDGE INCINERATION UNITS [a]

Report	Due date	Contents	Reference
Increments of progress report	No later than 10 business days after the compliance date for the increment.	1. Final control plan including air pollution control device descriptions, process changes, type of waste to be burned, and the maximum design sewage sludge burning capacity. 2. Notification of any failure to meet an increment of progress. 3. Notification of any closure.	§ 60.5235(a).
Initial compliance report	No later than 60 days following the initial performance test.	1. Company name and address 2. Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report. 3. Date of report. 4. Complete test report for the initial performance test. 5. Results of CMS [b] performance evaluation.	§ 60.5235(b).

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US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 489 of 492

TABLE 6 TO SUBPART MMMM OF PART 60—MODEL RULE—SUMMARY OF REPORTING REQUIREMENTS FOR EXISTING SEWAGE SLUDGE INCINERATION UNITS [a]—Continued

Report	Due date	Contents	Reference
		6. The values for the site-specific operating limits and the calculations and methods used to establish each operating limit. 7. Documentation of installation of bag leak detection system for fabric filter. 8. Results of initial air pollution control device inspection, including a description of repairs. 9. The site-specific monitoring plan required under § 60.5200. 10. The site-specific monitoring plan for your ash handling system required under § 60.5200.	
Annual compliance report	No later than 12 months following the submission of the initial compliance report; subsequent reports are to be submitted no more than 12 months following the previous report.	1. Company name and address ..... 2. Statement and signature by responsible official. 3. Date and beginning and ending dates of report. 4. If a performance test was conducted during the reporting period, the results of the test, including any new operating limits and associated calculations and the type of activated carbon used, if applicable. 5. For each pollutant and operating parameter recorded using a CMS, the highest recorded 3-hour average and the lowest recorded 3-hour average, as applicable. 6. If no deviations from emission limits, emission standards, or operating limits occurred, a statement that no deviations occurred. 7. If a fabric filter is used, the date, time, and duration of alarms. 8. If a performance evaluation of a CMS was conducted, the results, including any new operating limits and their associated calculations. 9. If you met the requirements of § 60.5205(a)(3) and did not conduct a performance test, include the dates of the last three performance tests, a comparison to the 50 percent emission limit threshold of the emission level achieved in the last three performance tests, and a statement as to whether there have been any process changes. 10. Documentation of periods when all qualified SSI unit operators were unavailable for more than 8 hours but less than 2 weeks. 11. Results of annual pollutions control device inspections, including description of repairs. 12. If there were no periods during which your CMSs had malfunctions, a statement that there were no periods during which your CMSs had malfunctions. 13. If there were no periods during which your CMSs were out of control, a statement that there were no periods during which your CMSs were out of control. 14. If there were no operator training deviations, a statement that there were no such deviations. 15. Information on monitoring plan revisions, including a copy of any revised monitoring plan.	§ 60.5235(c).
Deviation report (deviations from emission limits, emission standards, or operating limits, as specified in § 60.5235(e)(1)).	By August 1 of a calendar year for data collected during the first half of the calendar year; by February 1 of a calendar year for data collected during the second half of the calendar year.	*If using a CMS:* ..... 1. Company name and address. 2. Statement by a responsible official. 3. The calendar dates and times your unit deviated from the emission limits or operating limits. 4. The averaged and recorded data for those dates. 5. Duration and cause of each deviation. 6. Dates, times, and causes for monitor downtime incidents. 7. A copy of the operating parameter monitoring data during each deviation and any test report that documents the emission levels. 8. For periods of CMS malfunction or when a CMS was out of control, you must include the information specified in § 60.5235(d)(3)(viii). *If not using a CMS:.* 1. Company name and address. 2. Statement by a responsible official. 3. The total operating time of each affected SSI. 4. The calendar dates and times your unit deviated from the emission limits, emission standard, or operating limits. 5. The averaged and recorded data for those dates.	§ 60.5235(d).

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US EPA ARCHIVE DOCUMENT

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 490 of 492

TABLE 6 TO SUBPART MMMM OF PART 60—MODEL RULE—SUMMARY OF REPORTING REQUIREMENTS FOR EXISTING SEWAGE SLUDGE INCINERATION UNITS [a]—Continued

Report	Due date	Contents	Reference
		6. Duration and cause of each deviation. 7. A copy of any performance test report that showed a deviation from the emission limits or standards. 8. A brief description of any malfunction, a description of actions taken during the malfunction to minimize emissions, and corrective action taken.	
Notification of qualified operator deviation (if all qualified operators are not accessible for 2 weeks or more).	Within 10 days of deviation	1. Statement of cause of deviation ..... 2. Description of actions taken to ensure that a qualified operator will be available. 3. The date when a qualified operator will be accessible.	§ 60.5235(e).
Notification of status of qualified operator deviation.	Every 4 weeks following notification of deviation.	1. Description of actions taken to ensure that a qualified operator is accessible. 2. The date when you anticipate that a qualified operator will be accessible. 3. Request for approval to continue operation.	§ 60.5235(e).
Notification of resumed operation following shutdown (due to qualified operator deviation and as specified in § 60.5155(b)(2)(i).	Within five days of obtaining a qualified operator and resuming operation.	1. Notification that you have obtained a qualified operator and are resuming operation.	§ 60.5235(e).
Notification of a force majeure	As soon as practicable following the date you first knew, or through due diligence should have known that the event may cause or caused a delay in conducting a performance test beyond the regulatory deadline; the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification must occur as soon as practicable.	1. Description of the force majeure event ..... 2. Rationale for attributing the delay in conducting the performance test beyond the regulatory deadline to the force majeure. 3. Description of the measures taken or to be taken to minimize the delay. 4. Identification of the date by which you propose to conduct the performance test.	§ 60.5235(f).
Notification of intent to start or stop use of a CMS.	1 month before starting or stopping use of a CMS.	1. Intent to start or stop use of a CMS	§ 60.5235(g).
Notification of intent to conduct a performance test.	At least 30 days prior to the performance test.	1. Intent to conduct a performance test to comply with this subpart.	
Notification of intent to conduct a rescheduled performance test.	At least 7 days prior to the date of a rescheduled performance test.	1. Intent to conduct a rescheduled performance test to comply with this subpart.	

[a] This table is only a summary, *see* the referenced sections of the rule for the complete requirements.
[b] CMS means continuous monitoring system.

[FR Doc. 2011–4491 Filed 3–18–11; 8:45 am]
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HeinOnline -- 76 Fed. Reg. 15454 2011

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 491 of 492

EPA-APPROVED STATE OF HAWAII REGULATIONS—Continued

State citation	Title/subject	Effective date	EPA approval date	Explanation
11–60.1–40	Volatile organic compound water separation.	11/14/2003	4/27/2012 [*Insert page number where the document begins*].	New regulation.
11–60.1–41	Pump and compressor requirements.	11/14/2003	4/27/2012 [*Insert page number where the document begins*].	New regulation.
11–60.1–42	Waste gas disposal	11/14/2003	4/27/2012 [*Insert page number where the document begins*].	New regulation.
11–60.1–51	Definitions	11/14/2003	4/27/2012 [*Insert page number where the document begins*].	Supersedes 11–60–1.
11–60.1–53	Agricultural burning: permit requirement.	11/14/2003	4/27/2012 [*Insert page number where the document begins*].	Supersedes 11–60–19.
11–60.1–54	Agricultural burning: applications.	11/14/2003	4/27/2012 [*Insert page number where the document begins*].	Supersedes 11–60–20.
11–60.1–56	Agricultural burning: recordkeeping and monitoring.	11/14/2003	4/27/2012 [*Insert page number where the document begins*].	Supersedes 11–60–22.

* * * * *

[FR Doc. 2012–10102 Filed 4–26–12; 8:45 am]

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 60

[EPA–HQ–OAR–2009–0559; FRL–9664–9]

RIN 2060–AP90

Denial of Reconsideration Petitions on Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Sewage Sludge Incineration Units

AGENCY: Environmental Protection Agency (EPA).

ACTION: Denial of petitions for reconsideration.

SUMMARY: The EPA is providing notice that it has denied two petitions for reconsideration of a final rule published in the **Federal Register** on March 21, 2011. The rule established new source performance standards and emission guidelines for sewage sludge incineration units located at wastewater treatment facilities designed to treat domestic sewage sludge, and was issued pursuant to the EPA's authority under Clean Air Act section 129 to regulate solid waste incineration units. After publication of the rule, the EPA received petitions for reconsideration of the final rule from the National Association of Clean Water Agencies (NACWA) (dated May 24, 2011) and the Sierra Club (dated May 20, 2011). After carefully considering the petitions and supporting information, in reaching a decision on the petitions, EPA Administrator Lisa P. Jackson denied the petitions for reconsideration on April 6, 2012, in separate letters to the petitioners. EPA denied the petitions because they fail to meet the procedural test for reconsideration under CAA section 307(d)(7)(B), and/or are not of central relevance to the outcome of the rule, both of which are necessary conditions precedent to granting reconsideration. The letters explain in detail EPA's reasons for the denials.

FOR FURTHER INFORMATION CONTACT: Ms. Amy Hambrick, Sector Policies and Programs Division (E143–03), Office of Air Quality Planning and Standards, Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541–0964; fax number: (919) 541–3470; email address: *hambrick.amy@epa.gov.*

SUPPLEMENTARY INFORMATION:

I. How can I get copies of this document and other related information?

This **Federal Register** notice, the petitions for reconsideration, and the letters denying the petitions for reconsideration are available in the docket that the EPA established for the ''Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Sewage Sludge Incineration Units'' under Docket ID No. EPA–HQ–OAR–2009–0559. The document identification numbers for the petitions for reconsideration are: Sierra Club, EPA–HQ–OAR–2009–0559–0173; and NACWA, EPA–HQ–OAR–2009–0559–0174 (petition). The document identification number for EPA's response letters are EPA–HQ–OAR–2009–0559–0181. All documents in the docket are listed on the *www.regulations.gov* Web site. Although listed in the index, some information is not publicly available, *e.g.,* confidential business information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through *www.regulations.gov* or in hard copy at the EPA Docket Center (Air Docket), EPA/DC, EPA West, Room 3334, 1301 Constitution Ave. NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744 and the telephone number for the Air Docket is (202) 566–1742.

This **Federal Register** notice, the petitions for reconsideration and the letters denying the petitions can also be found on the EPA's Web site at *http://www.epa.gov/ttn/atw/129/ssi/ssipg.html.* The ''Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Sewage Sludge Incineration Units'' rules were published in the **Federal Register** on March 21, 2011, at 76 FR 15372.

II. Judicial Review

Any petitions for review of the letters denying the petitions for

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reconsideration described in this Notice must be filed in the Court of Appeals for the District of Columbia Circuit by June 26, 2012.

List of Subjects in 40 CFR Part 60

Environmental protection, Administrative practice and procedure, Air pollution control, Intergovernmental relations, Reporting and recordkeeping requirements.

Dated: April 18, 2012.

Lisa P. Jackson,

Administrator.

[FR Doc. 2012–10098 Filed 4–26–12; 8:45 am]

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FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 4

[PS Docket No. 11–82; FCC 12–22]

Extension of the Commission's Rules Regarding Outage Reporting to Interconnected Voice Over Internet Protocol Service Providers and Broadband Internet Service Providers

AGENCY: Federal Communications Commission.

ACTION: Final rule.

SUMMARY: In this document, the Commission extends the outage reporting requirements of the Commission's rules to interconnected Voice over Internet Protocol (VoIP) service providers and defers action with respect to reporting of outages of broadband Internet services. In addition, the NPRM for The Proposed Extension of Part 4 of the Commission's Rules Regarding Outage Reporting to Interconnected Voice Over Internet Protocol Service Providers and Broadband Internet Service Providers proposal included reporting of both outages based on the complete loss of service and those where, while service is technically available, technical conditions effectively prevent communication. The rule adopted applies only to outages resulting from complete loss of service and only to interconnected VoIP services. Collecting this data will help the Commission help ensure the Nation's 9–1–1 systems are as reliable and resilient as possible and also allow the Commission to monitor compliance with the statutory 9–1–1 obligations of interconnected VoIP service providers.

DATES: The rules in this document contain information collection requirements that have not been approved by OMB. The Federal Communications Commission will publish a document in the **Federal Register** announcing the effective date.

FOR FURTHER INFORMATION CONTACT: Gregory Intoccia, Special Counsel, Cybersecurity and Communications Reliability Division, Public Safety and Homeland Security Bureau, (202) 418–1470 or *gregory.intoccia@fcc.gov* (email). For additional information concerning the Paperwork Reduction Act information collection requirements contained in this document, contact Judith Boley-Herman, (202) 418–0214 or *PRA@fcc.gov* (email).

SUPPLEMENTARY INFORMATION: This is a summary of the Commission's Report and Order in PS Docket No. 11–82, FCC 12–22, released to the public on February 21, 2012, and NPRM released in **Federal Register** in Vol. 76, No. 111, June 9, 2011; and correction Vol. 76, No. 121, June 23, 2011. The full text of the document is available for public inspection during regular business hours in the FCC Reference Center, Room CY–A257, 445 12th Street SW., Washington, DC 20554, or online at *http://transition.fcc.gov/Daily_Releases/Daily_Business/2012/db0221/FCC-12-22A1.pdf.*

Initial Paperwork Reduction Act of 1995

Document FCC 11–184 seeks comment on potential new information collection requirements. If the Commission adopts any new information collection requirement, the Commission will publish another notice in the **Federal Register** inviting the public to comment on the requirements, as required by the Paperwork Reduction Act of 1995, Public Law 104–13 (44 U.S.C. 3501–3520). In addition, pursuant to the Small Business Paperwork Relief Act of 2002, the Commission seeks comment on how it might "further reduce the information collection burden for small business concerns with fewer than 25 employees."

Synopsis

I. Introduction

1. Consumers are increasingly using interconnected VoIP services in lieu of traditional telephone service. Interconnected VoIP services allow a wireline or wireless user generally to receive calls from and make calls to the legacy public telephone network, including calls to 9–1–1. As of the end of 2010, 31 percent of U.S. residential telephone subscriptions were provided by interconnected VoIP providers, an increase of 21 percent from the previous year. The public's increased reliance on interconnected VoIP services is also reflected in 9–1–1 usage trends; approximately 31 percent of residential wireline 9–1–1 calls are made using VoIP service. The availability and resilience of our communications infrastructure, specifically 9–1–1, directly impacts public safety and the ability of our first responders to fulfill their critical mission. The most effective way to maintain emergency preparedness is to work continuously to minimize the incidence of routine outages.

2. The Commission's public safety mission is one of its core functions. In 2008, Congress affirmed the Commission's efforts to accomplish this mission by codifying the requirement for interconnected VoIP providers to provide 9–1–1 services. Also, Presidential Directives and Executive Orders and related documents charge the Commission with ensuring the resilience and reliability of the Nation's commercial and public safety communications infrastructure. The Commission also has the responsibility to ensure continuous operations and reconstitution of critical communications and services, and plays an active role in Emergency Support Function 2 (ESF2), the communications branch of the National Response Framework, which guides the Nation's conduct during an all-hazards response. Executive Order 12472, which establishes the National Communications System, the functions of which include coordination of the planning for and provision of national security and emergency preparedness communications for the Federal government, also requires Commission participation.

3. There is cause to be concerned about the ability of interconnected VoIP subscribers to reach emergency services when they need them. In the past several years, a series of significant VoIP outages has increased our concern about the availability of 9–1–1 over VoIP service. Unlike other outages of voice service, VoIP outages are not reported to the Commission because the current outage reporting requirements apply only to traditional voice and paging communications services over wireline, wireless, cable, and satellite, but not to outages affecting interconnected VoIP services. Without detailed information about these outages, the Commission is unable to know whether and how well providers are meeting their statutory obligation to provide 9–1–1 and Enhanced 9–1–1 (E9–1–1) service.

4. Seeking to ensure the availability of 9–1–1 service, this Report and Order: Extends the Commission's mandatory

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MaxWest
ENVIRONMENTAL SYSTEMS, INC.

VIA E-MAIL

August 26, 2010

Ms. Mamie Miller, Chief
Air Compliance Branch
Compliance Assessment and
Media Programs Division 2223A
1200 Pennsylvania Ave, NW
Washington, DC 20460

RE: MaxWest Environmental Systems, Inc - Integrated Biosolids Management System--Request for Non-Applicability Determination Regarding 40 CFR Part 61 Subpart E

Dear Ms Miller:

MaxWest Environmental Systems, Inc. has learned from Jon Holton, Title V Program Administrator, Bureau of Air Regulation, Florida Department of Environmental Regulation, who has been in communication with Keith Goff of EPA Region IV, that MaxWest should provide you with information about MaxWest's biosolids conversion system in Sanford, Florida, and make a request for a formal determination by EPA regarding non-applicability of 40 CFR Part 61 Subpart E. MaxWest provides you below with an explanation of its system in support of its request for a determination that Subpart E Is not applicable.

MaxWest owns and operates an integrated biosolids management system consisting of a biosolids gasifier and an indirect-heated sludge dryer at the South Sanford Water Resources Center, in Sanford, Florida. The process uses dried biosolids as a feedstock in the gasifier to produce syngas for heat energy used in the indirect sludge dryer. MaxWest does not believe Subpart E[1] applies to the MaxWest's biosolids management system, as its gasifier neither incinerates nor dries sludge as required by Subpart E. We are formally requesting a determination by the US EPA on the non-applicability of 40 CFR Part 61 Subpart E – National Emission Standards for Mercury to this system.

A brief description of the process is presented below, and a process flow diagram is included in Attachment A.

[1] 40 CFR Part 61, Subpart E applies to stationary sources which "incinerate or dry wastewater treatment plant sludge."

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Process Description

Sludge from the City of Sanford and other domestic wastewater treatment plants is first dewatered using a belt-filter press, then dried using an indirect-heated dryer. Thermal fluid is used as the heat transfer media in this dryer. Dried biosolids are then transported to the MaxWest gasifier in which the material is converted to synthesis-gas (syngas), a mixture composed mostly of carbon monoxide and hydrogen. The gasification process is started using a non-combustion process (electric heat source). At no time do biosolids in this system come in contact with combustion gases. Syngas from the gasifier is then combusted in an integrated thermal oxidizer to produce heat which is passed through a heat exchanger. Thermal fluid is heated in this heat exchanger and pumped in a closed cycle to the indirect sludge dryer. The post-thermal oxidation train includes first a lime-injected fabric filter, followed by a wet scrubber to clean the exhaust gases prior to discharge to the atmosphere.

Gasification is Not Incineration

EPA has defined gasification as "a thermochemical decomposition process through which biomass or other organic matter is converted to a gaseous state in the limited presence of oxygen." ("Biomass Conversion: Emerging Technologies, Feedstocks, and Production," US EPA December 2007, p. 11).

Stated another way, gasification is a thermochemical process that converts carbonaceous materials, in a temperature range of 900-1,800°F, with little air or oxygen, into a "syngas" composed primarily of hydrogen and carbon monoxide. Gasification does not burn, combust or incinerate the material, but chemically converts it to the syngas. The primary difference between gasification and incineration is that the amount of air used in gasification is a small fraction of the amount of air that would be needed for complete combustion of the same carbonaceous material in an incinerator, burner or combustor. Gasification is inherently different than incineration, combustion or burning.

Request for Subpart E Non- Applicability Determination

MaxWest applied for an air pollution construction permit from the Florida Department of Environmental Protection (FDEP). Following guidance from EPA Region 4, the draft permit provided that 40 CFR Part 61 Subpart E would be applicable. MaxWest respectfully disagrees. MaxWest does not believe that a gasifier is or should be grouped in with combustion processes. The applicability rule is quoted as follows:

§ 61.50 Applicability: *"The provisions of this subpart are applicable to those stationary sources which process mercury ore to recover mercury, use mercury chlor-alkali cells to produce chlorine gas and alkali metal hydroxide,* ***and incinerate or dry wastewater treatment plant sludge****."* (Emphasis added.)

§ 61.51 **Definitions (m)** ***Sludge dryer*** *means a device used to reduce the moisture content of sludge* ***by heating*** *to temperatures above 65 °C (ca. 150 °F)* ***directly with combustion gases.*** (Emphasis added.)

"Incinerator" – A combustion apparatus designed for the ignition and burning of solid, semi-solid, liquid or gaseous combustible wastes. (Florida Administrative Code 62-210.200[160].)

The FDEP has acknowledged that the dryer uses *indirect heat* to dry the dewatered biosolids (a.k.a. sludge) and that the dryer is therefore not subject to Subpart E. But FDEP did apply Subpart E to the gasifier component of the system.

The gasifier, however, is neither a dryer nor an incinerator. The gasifier does not dry sludge directly with combustion gases. The gasification process, which converts carbonaceous biosolids to gases (primarily CO and hydrogen), is started through application of electrically-generated heat. Syngas is used downstream of the gasifier as a fuel.

MaxWest's primary concern is to avoid being grouped incorrectly with sludge incinerators through the application of Subpart E. Various emails between FDEP and EPA Region 4 have referenced cement kilns, municipal solid waste combustion, boiler, incineration and "burning" of sludge. None of these categories properly applies when describing MaxWest's integrated biosolids management system.

Summary of Key Points

- The sludge dryer is heated *indirectly* by a thermal transfer fluid.
- No combustion gases contact the sludge during drying.
- FDEP acknowledges that Subpart E does not apply to this dryer.
- Biosolids are dewatered and dried prior to gasification to produce syngas.
- The gasification process will be initiated with electrically generated heat; no combustion gases come in contact with the biosolids.
- The gasifier is not a sludge incinerator.

MaxWest is seeking a Subpart E non-applicability determination from your office before publishing the air pollution construction permit public notice. Both MaxWest and FDEP are anxious to have this construction permit issued in the very near future. MaxWest

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appreciates your prompt review and response to our request for a Subpart E non-applicability determination. We will be happy to provide further information upon request, and answer any questions.

Sincerely,

MaxWest Environmental Systems, Inc.

Ross M. Patten
President and Chief Executive Officer

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ATTACHMENT A

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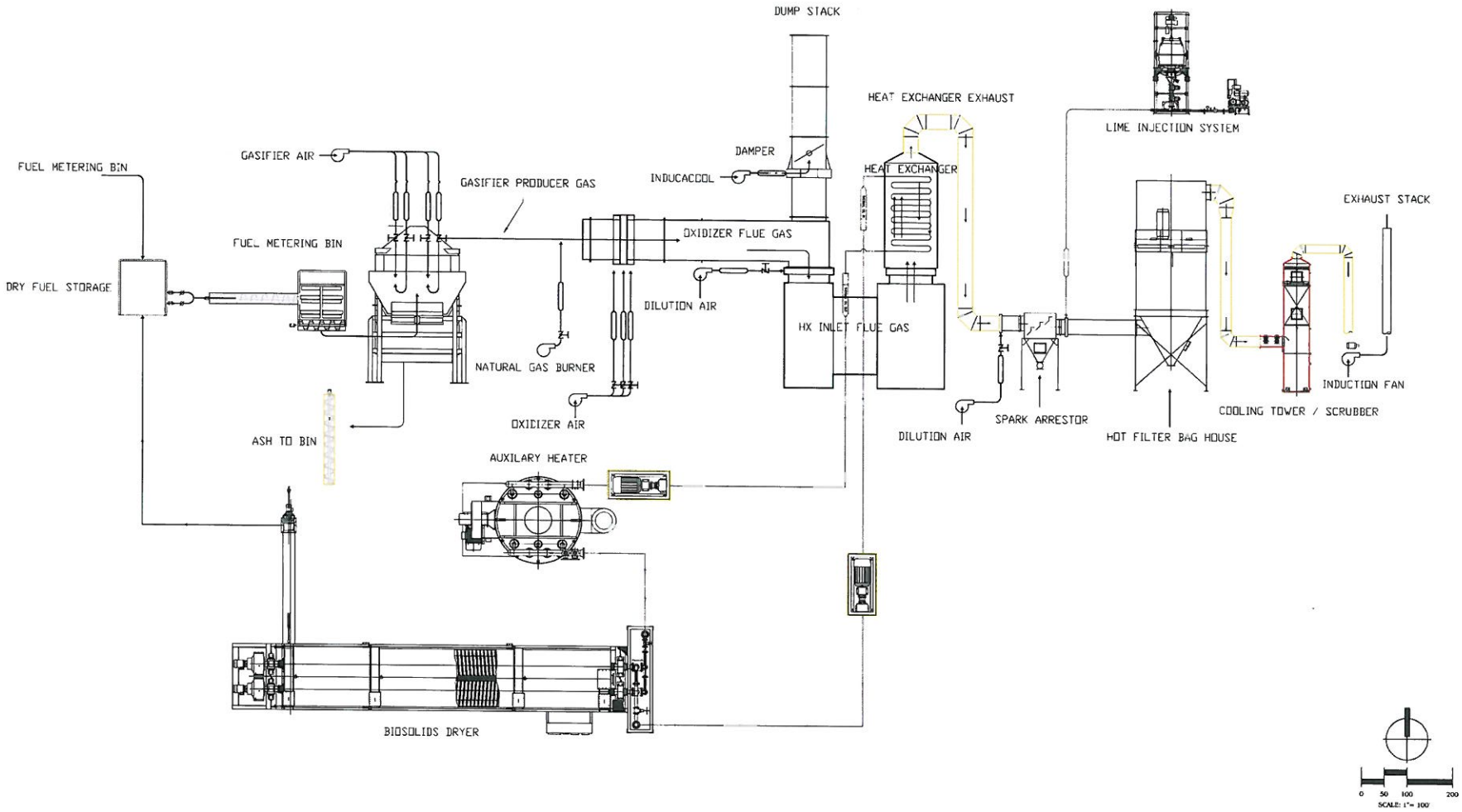

Sanford Flow Diagram

JUNE 2010

cph

USCA Case #11-1131 Document #1401008 Filed: 10/22/2012 Page 6 of 6

Amy Hendrick

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DEC 7 2010

OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

Paul Cairney
Vice President
Manufacturing & Design
MaxWest Environmental Systems, Incorporated
114 W. First Street
Suite 220
Sanford, Florida 32771

Dear Mr. Cairney:

This is in response to your letter of August 26, 2010, concerning a request for a determination of applicability of 40 CFR Part 61, Subpart E, National Emission Standard for Hazardous Air Pollutants (NESHAP) for Mercury to the integrated biosolids management system (IBMS) owned and operated by MaxWest, Incorporated, at the South Sanford Water Resources Center in Sanford, Florida. In general, the process uses dried biosolids as a feedstock in the gasifier to produce syngas for heat energy to be transferred to the indirect sludge dryer. Based on the information provided in your letters of August 29, 2010 and September 10, 2010, and for the reasons described herein, the United States Environmental Protection Agency (Agency or EPA) believes that Subpart E is applicable to the gasifier/thermal oxidizer portions of the IBMS system located at South Sanford Water Resources Center in Sanford, Florida.

In the August 26, 2010 letter, MaxWest provides a process description of the IBMS. Sludge from the City of Sanford and other domestic wastewater treatment plants is first dewatered using a belt-filter press, then dried using a dryer which uses thermal fluid as the heat transfer media. Dried sludge, which MaxWest refers to as "biosolids", are then transported to the gasifier in which the material is converted to synthesis-gas (syngas), a mixture composed mostly of carbon monoxide and hydrogen. The gasification process is started using an electric heat source. Syngas generated from the gasifier is then combusted in an integrated thermal oxidizer to produce heat which is passed through a heat exchanger to transfer heat to the thermal fluid, which is pumped in a closed cycle to the indirect sludge dryer. The post-thermal oxidation train includes: first, a lime-injected fabric filter, followed by a wet scrubber to clean the exhaust gases prior to discharge to the atmosphere.

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Section 61.50 provides the applicability for Subpart E:

> [t]he provisions of this subpart are applicable to those stationary sources which ... incinerate or dry wastewater treatment plant sludge.

The terms "incinerate" and "dry" are not defined in Subpart E, but Section 61.51(m) defines "sludge dryer" as: "a device used to reduce the moisture content of sludge by heating to temperatures above 65 °C (ca. 150 °F) directly with combustion gases." The standard at Section 61.52(b) applies to sludge incineration plants, sludge drying plants, or a combination of these that process wastewater treatment plant sludges.

Historically, the Agency originally proposed Subpart E (36 FR 23239) and promulgated Subpart E (38 FR 8820) to apply to mercury emissions from mercury ore processing and mercury cell chlor-alkali plants. After promulgation of the rule, the Environmental Defense Fund lodged a petition for review and questioned the impact on public health of mercury emissions from sewage sludge incinerators. In response, the Agency initiated a study "to more completely characterize emissions of mercury from sewage sludge incinerators". (39 FR 38067). On October 24, 1974, EPA proposed standards for emissions of mercury from the incineration and drying of wastewater treatment plant sludges.

In the October 24, 1974, proposal, EPA states that:

> [m]ercury is emitted from the drying of municipal sludges and the incineration of industrial wastewater . . . [and] . . . municipal sludges. 39 FR 38067.

A change to the proposed amendment was published on October 14, 1975, to clarify that:

> [t]he proposed definition of "sludge dryer" has been revised to indicate more clearly that only sludge drying operations that are directly heated by combustion gases are covered by the amendment. 40 FR 48297.

EPA also provided a "Description of the Industry" in the ***Background Information on National Emission Standards for Hazardous Air Pollutants – Proposed Amendments to Standards for Asbestos and Mercury*** (EPA Document Number EPA-450/2-74-009a; October 1974). On page 84, EPA states:

> Incineration of sludges involves combustion of greater than 99 percent of the combustible content of the sludges. Drying is the removal of water from sludge by heating it with combustion gases to a temperature above 65°C (ca. 150°F).

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In 1984, during the review of the Mercury NESHAP, the Agency discussed the sludge incineration and drying process in Document Number EPA-450/3-84-014 ***"Review of National Emission Standards for Mercury,*** page 5-3:

> Incinerators are used for treatment of sludge produced by municipal or industrial wastewater treatment plants. Incineration is a two step process that involves first drying and then combustion. In all furnaces, the temperature of the dewatered sludge is raised to 100°C (212°F) to evaporate water from the sludge, then, the temperature of the water, vapor, air and sludge is increased to the ignition point of the sludge volatiles.

In addition, on page 5-6, EPA describes sludge dryers:

> Heat drying is used to evaporate water in the sludge. Conventional heat-drying systems include rotary kiln drying, flash drying, drying in incinerators, and spray drying. Before heat drying, the sludge is usually mechanically dewatered. In the dryer, water that was not mechanically separated is evaporated without decomposing the organic matter in the sludge solids.

For MaxWest, the Agency identifies three parts of the process that must be evaluated to determine the applicability of Subpart E. As named and described by MaxWest, they are: 1) sludge drying; 2) sludge gasification; and 3) combustion of the resultant syngas in the thermal oxidizer.

Sludge Dryer

MaxWest describes the IBMS dryer as being indirectly heated by thermal transfer fluid with no contact with combustion gases. According to the applicability of Subpart E, the subpart applies, in part, to stationary sources which dry wastewater sludge. The standards apply, in part, to "sludge drying plants". While neither "stationary sources which dry wastewater sludge" nor "sludge drying plants" are defined in Subpart E, "sludge dryer" is a defined term, incorporating the concept that the moisture content is reduced directly with combustion gases. Section 61.51(m).

Additionally, the preamble language to the October 14, 1975 proposal, states

> [t]he proposed definition of "sludge dryer" has been revised to indicate more clearly that *only* sludge drying operations that directly heated by combustion gases are covered by the amendment. 40 FR 48297. Emphasis added.

Therefore, the Agency agrees that the IBMS dryer, which is indirectly heated by thermal transfer fluid, is not a 'sludge dryer" as defined by Subpart E and is not subject to Subpart E.

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Dried Sludge Gasification and Syngas Combustion

MaxWest describes the second part of the IBMS: a "gasifier" in which biosolids are converted to produce gas [primarily carbon monoxide (CO) and hydrogen], and the final step of the IBMS is a "thermal oxidizer", in which the produced gas is combusted in a thermal oxidizer to produce heat. The produced heat is passed through a heat exchanger to heat the thermal fluid to be used in the indirect drying step.

As previously discussed, the background documents describe sludge incineration as a two-step process that involves first evaporating water from the sludge, then increasing the temperature to the ignition point of the sludge volatiles. (EPA-450/3-84-014 page 5-3). A process that separates these steps between two units, one that produces the gases through the heating of sewage sludge, and a follow up unit in which the gases are combusted and emissions vented to the atmosphere, meets this description. Additionally, the emissions standard is applicable to the entire plant, so we anticipate reduction of mercury emissions prior to any point in which they are discharged to the atmosphere. As such, we believe the combination of the gasifier and thermal oxidizer at South Sanford Water Resources Center in Sanford, Florida, is a sewage sludge incinerator to which Subpart E is applicable.

In addition, MaxWest should be aware that the Agency recently proposed Standards of Performance and Emissions Guidelines for sewage sludge incinerators under Section 129 of the Clean Air Act. 75 FR 63260.

40 CFR Part 60 Subpart E, Standards of Performance for Incinerators also applies to certain incinerators meeting the applicability of Section 60.50. MaxWest is encouraged to evaluate these rules for potential applicability.

This response was coordinated with the Office of Air Quality Planning and Standards, the Office of General Counsel, and EPA Region IV. If you have any questions, please contact Marcia Mia, of my staff, at (202) 564-7042.

Sincerely,

for Ken Giglio

Richard F. Duffy, Acting Director
Compliance Assessment and Media Programs Division
Office of Compliance

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