

US EPA ARCHIVE DOCUMENT

**Regulation No. 23 Hazardous Waste Management, Adopted by the
Pollution Control and Ecology Commission on April 23, 2010,
effective June 13, 2010.**

Part 2 of 2

Section 266 – STANDARDS FOR THE MANAGEMENT OF SPECIFIC HAZARDOUS WASTES AND SPECIFIC TYPES OF HAZARDOUS WASTE MANAGEMENT FACILITIES

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Subsection C -- Recyclable Materials Used in a Manner Constituting Disposal

§ 266.20 Applicability.

(a) The regulations of this subsection apply to recyclable materials that are applied to or placed on the land:

(1) Without mixing with any other substance(s);

or

(2) After mixing or combination with any other substance(s). These materials will be referred to throughout this subsection as “materials used in a manner that constitutes disposal.”

(b) Products produced for the general public’s use that are used in a manner that constitutes disposal and that contain recyclable materials are not presently subject to regulation if the recyclable materials have undergone a chemical reaction in the course of producing the products so as to become inseparable by physical means and if such products meet the applicable treatment standards in subsection D of Section 268 (or applicable prohibition levels in § 268.32 or RCRA section 3004(d), where no treatment standards have been established) for each recyclable material (i.e., hazardous waste) that they contain. Commercial fertilizers that are produced for the general public’s use that contain recyclable materials also are not presently subject to regulation provided they meet these same treatment standards or prohibition levels for each recyclable material that they contain.

(c) Anti-skid/deicing uses of slags, which are generated from high temperature metals recovery (HTMR) processing of hazardous waste K061, K062, and F006, in a manner constituting disposal are not covered by the exemption in paragraph (b) of this section and remain subject to regulation.

(d) Fertilizers that contain recyclable materials are not subject to regulation provided that:

(1) They are zinc fertilizers excluded from the definition of solid waste according to § 261.4(a)(21) of this regulation; or

(2) They meet the applicable treatment standards

in subsection D of Section 268 of this regulation for each hazardous waste that they contain.

§ 266.21 Standards applicable to generators and transporters of materials used in a manner that constitute disposal.

Generators and transporters of materials that are used in a manner that constitutes disposal are subject to the applicable requirements of Sections 262 and 263 of this regulation, and the notification requirement under Section 3010 of RCRA.

§ 266.22 Standards applicable to storers of materials that are to be used in a manner that constitutes disposal who are not the ultimate users.

Owners or operators of facilities that store recyclable materials that are to be used in a manner that constitutes disposal, but who are not the ultimate users of the materials, are regulated under all applicable provisions of subsections A through L of Sections 264 and 265 and Section 270 of this regulation and the notification requirement under Section 3010 of RCRA.

§ 266.23 Standards applicable to users of materials that are used in a manner that constitutes disposal.

(a) Owners or operators of facilities that use recyclable materials in a manner that constitutes disposal are regulated under all applicable provisions of subparts A through N of Sections 264, 265, 268, and Section 270 of this regulation and the notification requirement under Section 3010 of RCRA. (These requirements do not apply to products which contain these recyclable materials under the provisions of § 266.20(b) of this regulation.)

(b) The use of waste or used oil or other material, which is contaminated with dioxin or any other hazardous waste (other than a waste identified solely on the basis of ignitability), for dust suppression or road treatment is prohibited.

Subsection D -- [Reserved]

Subsection E [Reserved]

Subsection F -- Recyclable Materials Utilized for Precious Metal Recovery

§ 266.70 Applicability and requirements.

(a) The regulations of this subsection apply to recyclable materials that are reclaimed to recover economically significant amounts of gold, silver, platinum, palladium, iridium, osmium, rhodium, ruthenium, or any combination of these.

(b) Persons who generate, transport, or store recyclable materials that are regulated under this subsection are subject to the following requirements:

(1) Notification requirements under section 3010 of RCRA;

(2) Subsection B of section 262 (for generators), §§ 263.20 and 263.21 (for transporters), and §§ 265.71 and 265.72 (for persons who store) of this regulation; and

(3) For precious metals exported to or imported from designated OECD member countries for recovery, subsection H of Section 262 and § 265.12(a)(2) of this regulation. For precious metals exported to or imported from non-OECD countries for recovery, subparts E and F of 40 CFR 262.

(c) Persons who store recycled materials that are regulated under this subsection must keep the following records to document that they are not accumulating these materials speculatively (as defined in § 261.1(c) of this regulation);

(1) Records showing the volume of these materials stored at the beginning of the calendar year;

(2) The amount of these materials generated or received during the calendar year; and

(3) The amount of materials remaining at the end of the calendar year.

(d) Recyclable materials that are regulated under this subsection that are accumulated speculatively (as defined in § 261.1(c) of this regulation) are subject to all applicable provisions of sections 262 through 265, 270 of this regulation and 40 CFR 124.

Subsection G -- Spent Lead-Acid Batteries Being Reclaimed

§ 266.80 Applicability and requirements.

(a) Are spent lead-acid batteries exempt from hazardous waste management requirements? If you generate, collect, transport, store, or regenerate lead-acid batteries for reclamation purposes, you may be exempt from certain hazardous waste management requirements. Use the following table to determine which requirements apply to you. Alternatively, you may choose to manage your spent lead-acid batteries under the "Universal Waste" rule in Section 273.

(b) If I store spent lead-acid batteries before I reclaim

If your batteries * * *	And if you * * *	Then you * * *	And you * * *
(1) Will be reclaimed through regeneration (such as by electrolyte replacement).		are exempt from Reg. 23 Sections 262 (except for 262.11), 263, 264, 265, 266, 268, 270, and the notification requirements at section 3010 of RCRA.	are subject to Reg. 23 Sections 261 and 262.11
(2) Will be reclaimed other than through regeneration.	generate, collect, and/or transport these batteries.	are exempt from Reg. 23 262 (except for 262.11), 263, 264, 265, 266, 270, and the notification requirements at section 3010 of RCRA.	are subject to Reg. 23 Section 261 and 262.11, and applicable provisions under Section 268.
(3) Will be reclaimed other than through regeneration.	store these batteries but you aren't the reclaimer.	are exempt from Reg. 23 262 (except for 262.11) 263, 264, 265, 266, 270, and the provisions under notification requirements at section 3010 of RCRA.	are subject to Reg. 23 Section 261, 262.11, and applicable provisions under Section 268.
(4) Will be reclaimed other than through regeneration.	store these batteries before you reclaim them.	must comply with Reg. 23 266.80(b) and as appropriate other regulatory provisions described in 266.80(b).	are subject to Reg. 23 Section 261, 262.11, and applicable provisions under Section 268.
(5) Will be reclaimed other than through regeneration.	don't store these batteries before you reclaim them.	are exempt from Reg. 23 Sections 262 (except for 262.11) 263, 264, 265, 266, 270, and the notification requirements at section 3010 of RCRA.	are subject to Reg. 23 Section 261, 262.11, and applicable provisions under Section 268.

them but not through regeneration, which requirements apply? The requirements of paragraph (b) of this section apply to you if you store spent lead-acid batteries before you reclaim them, but you don't reclaim them through regeneration. The requirements are slightly different depending on your RCRA permit status.

(1) For Interim Status Facilities, you must comply

with:

- (i) Notification requirements under section 3010 of RCRA.
 - (ii) All applicable provisions in subsection A of Section 265 of this regulation.
 - (iii) All applicable provisions in subsection B of Section 265 of this regulation, except § 265.13 (waste analysis).
 - (iv) All applicable provisions in subsections C and D of Section 265 of this regulation.
 - (v) All applicable provisions in subsection E of Section 265 of this regulation, except §§ 265.71 and 265.72 (dealing with the use of the manifest and manifest discrepancies).
 - (vi) All applicable provisions in subsections F through L of Section 265 of this regulation.
 - (vii) All applicable provisions in Section 270 of this regulation and 40 CFR 124.
- (2) For Permitted Facilities.
- (i) Notification requirements under section 3010 of RCRA.
 - (ii) All applicable provisions in subsection A of Section 264 of this regulation.
 - (iii) All applicable provisions in subpart B of Section 264 of this regulation (but not § 264.13 (waste analysis)).
 - (iv) All applicable provisions in subsections C and D of Section 264 of this regulation.
 - (v) All applicable provisions in subsection E of Section 264 of this regulation (but not § 264.71 or § 264.72 (dealing with the use of the manifest and manifest discrepancies)).
 - (vi) All applicable provisions in subsections F through L of Section 264 of this regulation.
 - (vii) All applicable provisions in Section 270 of this regulation and 40 CFR 124.

Subsection H – Hazardous Waste Burned in Boilers and Industrial Furnaces

§ 266.100 Applicability.

(a) The regulations of this subsection apply to hazardous waste burned or processed in a boiler or industrial furnace (as defined in § 260.10 of this regulation) irrespective of the purpose of burning or processing, except as provided by paragraphs (b), (c), (d), (g), and (h) of this subsection. In this subpart, the term “burn” means burning for energy recovery or destruction, or processing for materials recovery or as an ingredient. The emissions standards of §§ 266.104, 266.105, 266.106, and 266.107 apply to facilities operating under interim status or under a RCRA permit as specified in §§ 266.102 and 266.103.

(b) Integration of the MACT standards.

(1) Except as provided by paragraphs (b)(2), (b)(3), and (b)(4) of this subsection, the standards of this section do not apply to a new hazardous waste boiler or industrial furnace unit that becomes subject to RCRA permit requirements after October 12, 2005; or no longer apply when an owner or operator of an existing hazardous waste boiler or industrial furnace unit demonstrates compliance with the maximum achievable control technology (MACT) requirements of 40 CFR Part 63, Subpart EEE, by conducting a comprehensive performance test and submitting to the Director a Notification of Compliance under 40 CFR 63.1207(j) and 63.1210(d) documenting compliance with the requirements of 40 CFR Part 63, Subpart EEE. Nevertheless, even after this demonstration of compliance with the MACT standards, RCRA permit conditions that were based on the standards of this part will continue to be in effect until they are removed from the permit or the permit is terminated or revoked, unless the permit expressly provides otherwise.

(2) The following standards continue to apply:

(i) If you elect to comply with § 270.235(a)(1)(i) of this regulation to minimize emissions of toxic compounds from startup, shutdown, and malfunction events, § 266.102(e)(1) requiring operations in accordance with the operating requirements specified in the permit at all times that hazardous waste is in the unit, and § 266.102(e)(2)(iii) requiring compliance with the emission standards and operating requirements during startup and shutdown if hazardous waste is in the combustion chamber, except for particular hazardous wastes. These provisions apply only during startup, shutdown, and malfunction events;

(ii) The closure requirements of §§ 266.102(e)(11) and 266.103(l);

(iii) The standards for direct transfer of § 266.111;

(iv) The standards for regulation of residues of § 266.112; and

(v) The applicable requirements of subsections A through H, BB and CC of sections 264 and 265 of this regulation.

(3) If you own or operate a boiler or hydrochloric acid production furnace that is an area source under 40 CFR § 63.2 and you elect not to comply with the emission standards under 40 CFR §§ 63.1216, 63.1217, and 63.1218 for particulate matter, semivolatile and low volatile metals, and total chlorine, you also remain subject to:

(i) Section 266.105 of this regulation — Standards to control particulate matter;

(ii) Section 266.106 of this regulation —

Standards to control metals emissions, except for mercury; and

(iii) Section 266.107 of this regulation — Standards to control hydrogen chloride and chlorine gas.

(4) The particulate matter standard of § 266.105 remains in effect for boilers that elect to comply with the alternative to the particulate matter standard under 40 CFR §§ 63.1216(e) and 63.1217(e).

(c) The following hazardous wastes and facilities are not subject to regulation under this subsection:

(1) Used oil burned for energy recovery that is also a hazardous waste solely because it exhibits a characteristic of hazardous waste identified in subsection C of section 261 of this regulation. Such used oil is subject to regulation under Section 279 of this regulation;

(2) Gas recovered from hazardous or solid waste landfills when such gas is burned for energy recovery;

(3) Hazardous wastes that are exempt from regulation under §§ 261.4 and 261.6(a)(3) (iii) and (iv) of this regulation, and hazardous wastes that are subject to the special requirements for conditionally exempt small quantity generators under § 261.5 of this regulation; and

(4) Coke ovens, if the only hazardous waste burned is EPA Hazardous Waste No. K087, decanter tank tar sludge from coking operations.

(d) Owners and operators of smelting, melting, and refining furnaces (including pyrometallurgical devices such as cupolas, sintering machines, roasters, and foundry furnaces, but not including cement kilns, aggregate kilns, or halogen acid furnaces burning hazardous waste) that process hazardous waste solely for metal recovery are conditionally exempt from regulation under this subpart, except for §§ 266.101 and 266.112.

(1) To be exempt from §§ 266.102 through 266.111, an owner or operator of a metal recovery furnace or mercury recovery furnace must comply with the following requirements, except that an owner or operator of a lead or a nickel-chromium recovery furnace, or a metal recovery furnace that burns baghouse bags used to capture metallic dusts emitted by steel manufacturing, must comply with the requirements of paragraph (d)(3) of this section, and owners or operators of lead recovery furnaces that are subject to regulation under the Secondary Lead Smelting NESHAP must comply with the requirements of paragraph (h) of this section.

(i) Provide a one-time written notice to the Director indicating the following:

(A) The owner or operator claims exemption under this paragraph;

(B) The hazardous waste is burned solely for metal recovery consistent with the provisions of paragraph (d)(2) of this section;

(C) The hazardous waste contains recoverable levels of metals; and

(D) The owner or operator will comply with the sampling and analysis and recordkeeping requirements of this paragraph;

(ii) Sample and analyze the hazardous waste and other feedstocks as necessary to comply with the requirements of this paragraph by using appropriate methods; and

(iii) Maintain at the facility for at least three years records to document compliance with the provisions of this paragraph including limits on levels of toxic organic constituents and BTU value of the waste, and levels of recoverable metals in the hazardous waste compared to normal nonhazardous waste feedstocks.

(2) A hazardous waste meeting either of the following criteria is not processed solely for metal recovery:

(i) The hazardous waste has a total concentration of organic compounds listed in Section 261, Appendix VIII, of this regulation exceeding 500 ppm by weight, as-fired, and so is considered to be burned for destruction. The concentration of organic compounds in a waste as-generated may be reduced to the 500 ppm limit by *bona fide* treatment that removes or destroys organic constituents. Blending for dilution to meet the 500 ppm limit is prohibited and documentation that the waste has not been impermissibly diluted must be retained in the records required by paragraph (d)(1)(iii) of this subsection; or

(ii) The hazardous waste has a heating value of 5,000 Btu/lb or more, as-fired, and so is considered to be burned as fuel. The heating value of a waste as-generated may be reduced to below the 5,000 Btu/lb limit by *bona fide* treatment that removes or destroys organic constituents. Blending for dilution to meet the 5,000 Btu/lb limit is prohibited and documentation that the waste has not been impermissibly diluted must be retained in the records required by paragraph (d)(1)(iii) of this subsection.

(3) To be exempt from §§ 266.102 through 266.111, an owner or operator of a lead or nickel-chromium or mercury recovery furnace (except for owners or operators of lead recovery furnaces subject to regulation under the Secondary Lead Smelting NESHAP) or a metal recovery furnace that burns baghouse bags used to capture metallic dusts emitted by steel manufacturing, must provide a one-time written notice to the Director identifying each hazardous waste burned and specifying whether the

owner or operator claims an exemption for each waste under this paragraph or paragraph (d)(1) of this subsection. The owners or operator must comply with the requirements of paragraph (d)(1) of this section for those wastes claimed to be exempt under that paragraph and must comply with the requirements below for those wastes claimed to be exempt under this paragraph (d)(3).

(i) The hazardous wastes listed in Appendices XI, XII, and XIII, Section 266, and baghouse bags used to capture metallic dusts emitted by steel manufacturing are exempt from the requirements of paragraph (d)(1) of this subsection, provided that:

(A) A waste listed in appendix XI of this section must contain recoverable levels of lead, a waste listed in Appendix XII of this section must contain recoverable levels of nickel or chromium, a waste listed in Appendix XIII of this section must contain recoverable levels of mercury and contain less than 500 ppm of Section 261, Appendix VIII organic constituents, and baghouse bags used to capture metallic dusts emitted by steel manufacturing must contain recoverable levels of metal; and

(B) The waste does not exhibit the Toxicity Characteristic of § 261.24 of this regulation for an organic constituent; and

(C) The waste is not a hazardous waste listed in subsection D of Section 261 of this regulation because it is listed for an organic constituent as identified in Appendix VII of Section 261 of this regulation; and

(D) The owner or operator certifies in the one-time notice that hazardous waste is burned under the provisions of paragraph (d)(3) of this subsection and that sampling and analysis will be conducted or other information will be obtained as necessary to ensure continued compliance with these requirements. Sampling and analysis shall be conducted according to paragraph (d)(1)(ii) of this subsection and records to document compliance with paragraph (d)(3) of this subsection shall be kept for at least three years.

(ii) The Director may decide on a case-by-case basis that the toxic organic constituents in a material listed in Appendix XI, XII, or XIII of this section that contains a total concentration of more than 500 ppm toxic organic compounds listed in Appendix VIII, Section 261 of this regulation, may pose a hazard to human health and the environment when burned in a metal recovery furnace exempt

from the requirements of this subsection. In that situation, after adequate notice and opportunity for comment, the metal recovery furnace will become subject to the requirements of this subpart when burning that material. In making the hazard determination, the Director will consider the following factors:

(A) The concentration and toxicity of organic constituents in the material; and

(B) The level of destruction of toxic organic constituents provided by the furnace; and

(C) Whether the acceptable ambient levels established in Appendices IV or V of this section may be exceeded for any toxic organic compound that may be emitted based on dispersion modeling to predict the maximum annual average off-site ground level concentration.

(e) The standards for direct transfer operations under § 266.111 apply only to facilities subject to the permit standards of § 266.102 or the interim status standards of § 266.103.

(f) The management standards for residues under § 266.112 apply to any boiler or industrial furnace burning hazardous waste.

(g) Owners and operators of smelting, melting, and refining furnaces (including pyrometallurgical devices such as cupolas, sintering machines, roasters, and foundry furnaces) that process hazardous waste for recovery of economically significant amounts of the precious metals gold, silver, platinum, palladium, iridium, osmium, rhodium, or ruthenium, or any combination of these are conditionally exempt from regulation under this subpart, except for § 266.112. To be exempt from §§ 266.101 through 266.111, an owner or operator must:

(1) Provide a one-time written notice to the Director indicating the following:

(i) The owner or operator claims exemption under this paragraph;

(ii) The hazardous waste is burned for legitimate recovery of precious metal; and

(iii) The owner or operator will comply with the sampling and analysis and recordkeeping requirements of this paragraph; and

(2) Sample and analyze the hazardous waste as necessary to document that the waste contains economically significant amounts of the metals and that the treatment recovers economically significant amounts of precious metal; and

(3) Maintain at the facility for at least three years records to document that all hazardous wastes burned are burned for recovery of economically significant amounts of precious metal.

(h) Starting June 23, 1997, owners or operators of lead recovery furnaces that process hazardous waste for recovery of lead and that are subject to regulation under the Sec-

ondary Lead Smelting NESHAP, are conditionally exempt from regulation under this subpart, except for § 266.101. To be exempt, an owner or operator must provide a one-time notice to the Director identifying each hazardous waste burned and specifying that the owner or operator claims an exemption under this paragraph. The notice also must state that the waste burned has a total concentration of non-metal compounds listed in Section 261, Appendix VIII, of this regulation of less than 500 ppm by weight, as fired and as provided in paragraph (d)(2)(i) of this subsection, or is listed in Appendix XI to this Section 266.

§ 266.101 Management prior to burning.

(a) Generators. Generators of hazardous waste that is burned in a boiler or industrial furnace are subject to section 262 of this regulation.

(b) Transporters. Transporters of hazardous waste that is burned in a boiler or industrial furnace are subject to section 263 of this regulation.

(c) Storage Facilities. (1) Owners and operators of facilities that store or treat hazardous waste that is burned in a boiler or industrial furnace are subject to the applicable provisions of Sections 264, 265, and 270 of this regulation, except as provided by paragraph (c)(2) of this section. These standards apply to storage and treatment by the burner as well as to storage and treatment facilities operated by intermediaries (processors, blenders, distributors, etc.) between the generator and the burner.

(2) Owners and operators of facilities that burn, in an onsite boiler or industrial furnace exempt from regulation under the small quantity burner provisions of § 266.108, hazardous waste that they generate are exempt from the regulations of Sections 264, 265, and 270 of this regulation applicable to storage units for those storage units that store mixtures of hazardous waste and the primary fuel to the boiler or industrial furnace in tanks that feed the fuel mixture directly to the burner. Storage of hazardous waste prior to mixing with the primary fuel is subject to regulation as prescribed in paragraph (c)(1) of this section.

§ 266.102 Permit standards for burners.

(a) Applicability-(1) General. Owners and operators of boilers and industrial furnaces burning hazardous waste and not operating under interim status must comply with the requirements of this section and §§ 270.22 and 270.66 of this regulation, unless exempt under the small quantity burner exemption of § 266.108.

(2) Applicability of Section 264 standards. Owners and operators of boilers and industrial furnaces that burn hazardous waste are subject to the following provisions of section 264 of this regulation,

except as provided otherwise by this subpart:

- (i) In subsection A (General), 264.4;
- (ii) In subsection B (General Facility Standards), §§ 264.11-264.18;
- (iii) In subsection C (Preparedness and Prevention), §§ 264.31-264.37;
- (iv) In subsection D (Contingency Plan and Emergency Procedures), §§ 264.51-264.56;
- (v) In subsection E (Manifest System, recordkeeping, and reporting), the applicable provisions of §§ 264.71-264.77;
- (vi) In subsection F (Releases From Solid Waste Management Units), §§ 264.90 and 264.101;
- (vii) In subsection G (Closure and post-closure), §§ 264.111-264.115;
- (viii) In subsection H (Financial requirements), §§ 264.141, 264.142, 264.143, and 264.147-264.151, except that States and the Federal government are exempt from the requirements of subsection H; and
- (ix) Subsection BB (Air emission standards for equipment leaks), except §§ 264.1050(a).

(b) Hazardous waste analysis.

(1) The owner or operator must provide an analysis of the hazardous waste that quantifies the concentration of any constituent identified in appendix VIII of Section 261 of this Regulation that may reasonably be expected to be in the waste. Such constituents must be identified and quantified if present, at levels detectable by using appropriate analytical procedures. The appendix VIII, Section 261 constituents excluded from this analysis must be identified and the basis for their exclusion explained. This analysis will be used to provide all information required by this Subsection and §§ 270.22 and 270.66 of this Regulation and to enable the permit writer to prescribe such permit conditions as necessary to protect human health and the environment. Such analysis must be included as a portion of the part B permit application, or, for facilities operating under the interim status standards of this Subsection, as a portion of the trial burn plan that may be submitted before the part B application under provisions of § 270.66(g) of this Regulation as well as any other analysis required by the permit authority in preparing the permit. Owners and operators of boilers and industrial furnaces not operating under the interim status standards must provide the information required by §§ 270.22 or 270.66(c) of this Regulation in the part B application to the greatest extent possible.

(2) Throughout normal operation, the owner or operator must conduct sampling and analysis as necessary to ensure that the hazardous waste, other fuels, and industrial furnace feedstocks fired into the boiler or industrial furnace are within the physical

and chemical composition limits specified in the permit.

(c) Emissions standards. Owners and operators must comply with emissions standards provided by §§ 266.104 through 266.107.

(d) Permits. (1) The owner or operator may burn only hazardous wastes specified in the facility permit and only under the operating conditions specified under paragraph (e) of this section, except in approved trial burns under the conditions specified in § 270.66 of this regulation.

(2) Hazardous wastes not specified in the permit may not be burned until operating conditions have been specified under a new permit or permit modification, as applicable. Operating requirements for new wastes may be based on either trial burn results or alternative data included with part B of a permit application under § 270.22 of this regulation.

(3) Boilers and industrial furnaces operating under the interim status standards of § 266.103 are permitted under procedures provided by § 270.66(g) of this regulation.

(4) A permit for a new boiler or industrial furnace (those boilers and industrial furnaces not operating under the interim status standards) must establish appropriate conditions for each of the applicable requirements of this section, including but not limited to allowable hazardous waste firing rates and operating conditions necessary to meet the requirements of paragraph (e) of this section, in order to comply with the following standards:

(i) For the period beginning with initial introduction of hazardous waste and ending with initiation of the trial burn, and only for the minimum time required to bring the device to a point of operational readiness to conduct a trial burn, not to exceed a duration of 720 hours operating time when burning hazardous waste, the operating requirements must be those most likely to ensure compliance with the emission standards of §§ 266.104 through 266.107, based on the Director's engineering judgment. If the applicant is seeking a waiver from a trial burn to demonstrate conformance with a particular emission standard, the operating requirements during this initial period of operation shall include those specified by the applicable provisions of § 266.104, § 266.105, § 266.106, or § 266.107. The Director may extend the duration of this period for up to 720 additional hours when good cause for the extension is demonstrated by the applicant.

(ii) For the duration of the trial burn, the operating requirements must be sufficient to demonstrate compliance with the emissions standards of §§ 266.104 through 266.107 and must be in accordance with the approved trial

burn plan;

(iii) For the period immediately following completion of the trial burn, and only for the minimum period sufficient to allow sample analysis, data computation, submission of the trial burn results by the applicant, review of the trial burn results and modification of the facility permit by the Director to reflect the trial burn results, the operating requirements must be those most likely to ensure compliance with the emission standards §§ 266.104 through 266.107 based on the Director's engineering judgment.

(iv) For the remaining duration of the permit, the operating requirements must be those demonstrated in a trial burn or by alternative data specified in § 270.22 of this regulation, as sufficient to ensure compliance with the emissions standards of §§ 266.104 through 266.107.

(e) Operating requirements - (1) General. A boiler or industrial furnace burning hazardous waste must be operated in accordance with the operating requirements specified in the permit at all times where there is hazardous waste in the unit.

(2) Requirements to ensure compliance with the organic emissions standards- (i) DRE standard. Operating conditions will be specified either on a case-by-case basis for each hazardous waste burned as those demonstrated (in a trial burn or by alternative data as specified in § 270.22) to be sufficient to comply with the destruction and removal efficiency (DRE) performance standard of § 266.104(a) or as those special operating requirements provided by § 266.104(a)(4) for the waiver of the DRE trial burn. When the DRE trial burn is not waived under § 266.104(a)(4), each set of operating requirements will specify the composition of the hazardous waste (including acceptable variations in the physical and chemical properties of the hazardous waste which will not affect compliance with the DRE performance standard) to which the operating requirements apply. For each such hazardous waste, the permit will specify acceptable operating limits including, but not limited to, the following conditions as appropriate:

(A) Feed rate of hazardous waste and other fuels measured and specified as prescribed in paragraph (e)(6) of this section;

(B) Minimum and maximum device production rate when producing normal product expressed in appropriate units, measured and specified as prescribed in paragraph (e)(6) of this section;

(C) Appropriate controls of the hazardous waste firing system;

(D) Allowable variation in boiler and industrial furnace system design or operating procedures;

(E) Minimum combustion gas temperature measured at a location indicative of combustion chamber temperature, measured and specified as prescribed in paragraph (e)(6) of this section;

(F) An appropriate indicator of combustion gas velocity, measured and specified as prescribed in paragraph (e)(6) of this section, unless documentation is provided under § 270.66 of this regulation demonstrating adequate combustion gas residence time; and

(G) Such other operating requirements as are necessary to ensure that the DRE performance standard of § 266.104(a) is met.

(ii) Carbon monoxide and hydrocarbon standards. The permit must incorporate a carbon monoxide (CO) limit and, as appropriate, a hydrocarbon (HC) limit as provided by paragraphs (b), (c), (d), (e) and (f) of § 266.104. The permit limits will be specified as follows:

(A) When complying with the CO standard of § 266.104(b)(1), the permit limit is 100 ppmv;

(B) When complying with the alternative CO standard under § 266.104(c), the permit limit for CO is based on the trial burn and is established as the average over all valid runs of the highest hourly rolling average CO level of each run, and the permit limit for HC is 20 ppmv (as defined in § 266.104(c)(1)), except as provided in § 266.104(f).

(C) When complying with the alternative HC limit for industrial furnaces under § 266.104(f), the permit limit for HC and CO is the baseline level when hazardous waste is not burned as specified by that paragraph.

(iii) Start-up and shut-down. During start-up and shut-down of the boiler or industrial furnace, hazardous waste (except waste fed solely as an ingredient under the Tier I (or adjusted Tier I) feed rate screening limits for metals and chloride/chlorine, and except low risk waste exempt from the trial burn requirements under §§ 266.104(a)(5), 266.105, 266.106, and 266.107) must not be fed into the device unless the device is operating within the conditions of operation specified in the permit.

(3) Requirements to ensure conformance with the particulate standard. (i) Except as provided in paragraphs (e)(3) (ii) and (iii) of this section, the permit shall specify the following operating requirements to ensure conformance with the particulate standard specified in § 266.105:

(A) Total ash feed rate to the device from hazardous waste, other fuels, and industrial furnace feedstocks, measured and specified as prescribed in paragraph (e)(6) of this section;

(B) Maximum device production rate when producing normal product expressed in appropriate units, and measured and specified as prescribed in paragraph (e)(6) of this section;

(C) Appropriate controls on operation and maintenance of the hazardous waste firing system and any air pollution control system;

(D) Allowable variation in boiler and industrial furnace system design including any air pollution control system or operating procedures; and

(E) Such other operating requirements as are necessary to ensure that the particulate standard in § 266.105(a) is met.

(ii) Permit conditions to ensure conformance with the particulate matter standard shall not be provided for facilities exempt from the particulate matter standard under § 266.105(b);

(iii) For cement kilns and light-weight aggregate kilns, permit conditions to ensure compliance with the particulate standard shall not limit the ash content of hazardous waste or other feed materials.

(4) Requirements to ensure conformance with the metals emissions standard. (i) For conformance with the Tier I (or adjusted Tier I) metals feed rate screening limits of paragraphs (b) or (e) of § 266.106, the permit shall specify the following operating requirements:

(A) Total feed rate of each metal in hazardous waste, other fuels, and industrial furnace feedstocks measured and specified under provisions of paragraph (e)(6) of this section;

(B) Total feed rate of hazardous waste measured and specified as prescribed in paragraph (e)(6) of this section;

(C) A sampling and metals analysis program for the hazardous waste, other fuels, and industrial furnace feedstocks;

(ii) For conformance with the Tier II metals emission rate screening limits under § 266.106(c) and the Tier III metals controls under § 266.106(d), the permit shall specify

the following operating requirements:

(A) Maximum emission rate for each metal specified as the average emission rate during the trial burn;

(B) Feed rate of total hazardous waste and pumpable hazardous waste, each measured and specified as prescribed in paragraph (e)(6)(i) of this section;

(C) Feed rate of each metal in the following feedstreams, measured and specified as prescribed in paragraphs (e)(6) of this section:

(1) Total feed streams;

(2) Total hazardous waste feed; and

(3) Total pumpable hazardous waste feed;

(D) Total feed rate of chlorine and chloride in total feed streams measured and specified as prescribed in paragraph (e)(6) of this section;

(E) Maximum combustion gas temperature measured at a location indicative of combustion chamber temperature, and measured and specified as prescribed in paragraph (e)(6) of this section;

(F) Maximum flue gas temperature at the inlet to the particulate matter air pollution control system measured and specified as prescribed in paragraph (e)(6) of this section;

(G) Maximum device production rate when producing normal product expressed in appropriate units and measured and specified as prescribed in paragraph (e)(6) of this section;

(H) Appropriate controls on operation and maintenance of the hazardous waste firing system and any air pollution control system;

(I) Allowable variation in boiler and industrial furnace system design including any air pollution control system or operating procedures; and

(J) Such other operating requirements as are necessary to ensure that the metals standards under §§ 266.106(c) or 266.106(d) are met.

(iii) For conformance with an alternative implementation approach approved by the Director under § 266.106(f), the permit will specify the following operating requirements:

(A) Maximum emission rate for each metal specified as the average emission rate during the trial burn;

(B) Feed rate of total hazardous waste

and pumpable hazardous waste, each measured and specified as prescribed in paragraph (e)(6)(i) of this section;

(C) Feed rate of each metal in the following feedstreams, measured and specified as prescribed in paragraph (e)(6) of this section:

(1) Total hazardous waste feed; and

(2) Total pumpable hazardous waste feed;

(D) Total feed rate of chlorine and chloride in total feed streams measured and specified prescribed in paragraph (e)(6) of this section;

(E) Maximum combustion gas temperature measured at a location indicative of combustion chamber temperature, and measured and specified as prescribed in paragraph (e)(6) of this section;

(F) Maximum flue gas temperature at the inlet to the particulate matter air pollution control system measured and specified as prescribed in paragraph (e)(6) of this section;

(G) Maximum device production rate when producing normal product expressed in appropriate units and measured and specified as prescribed in paragraph (e)(6) of this section;

(H) Appropriate controls on operation and maintenance of the hazardous waste firing system and any air pollution control system;

(I) Allowable variation in boiler and industrial furnace system design including any air pollution control system or operating procedures; and

(J) Such other operating requirements as are necessary to ensure that the metals standards under §§ 266.106(c) or 266.106(d) are met.

(5) Requirements to ensure conformance with the hydrogen chloride and chlorine gas standards.

(i) For conformance with the Tier I total chloride and chlorine feed rate screening limits of § 266.107(b)(1), the permit will specify the following operating requirements:

(A) Feed rate of total chloride and chlorine in hazardous waste, other fuels, and industrial furnace feedstocks measured and specified as prescribed in paragraph (e)(6) of this section;

(B) Feed rate of total hazardous waste measured and specified as prescribed in paragraph (e)(6) of this section;

(C) A sampling and analysis program for total chloride and chlorine for the hazardous waste, other fuels, and industrial furnace feedstocks;

(ii) For conformance with the Tier II HCl and Cl₂ emission rate screening limits under § 266.107(b)(2) and the Tier III HCl and Cl₂ controls under § 266.107(c), the permit will specify the following operating requirements:

(A) Maximum emission rate for HCl and for Cl₂ specified as the average emission rate during the trial burn;

(B) Feed rate of total hazardous waste measured and specified as prescribed in paragraph (e)(6) of this section;

(C) Total feed rate of chlorine and chloride in total feed streams, measured and specified as prescribed in paragraph (e)(6) of this section;

(D) Maximum device production rate when producing normal product expressed in appropriate units, measured and specified as prescribed in paragraph (e)(6) of this section;

(E) Appropriate controls on operation and maintenance of the hazardous waste firing system and any air pollution control system;

(F) Allowable variation in boiler and industrial furnace system design including any air pollution control system or operating procedures; and

(G) Such other operating requirements as are necessary to ensure that the HCl and Cl₂ standards under § 266.107 (b)(2) or (c) are met.

(6) Measuring parameters and establishing limits based on trial burn data-(i) General requirements. As specified in paragraphs (e)(2) through (e)(5) of this section, each operating parameter shall be measured, and permit limits on the parameter shall be established, according to either of the following procedures:

(A) Instantaneous limits. A parameter may be measured and recorded on an instantaneous basis (i.e., the value that occurs at any time) and the permit limit specified as the time-weighted average during all valid runs of the trial burn; or

(B) Hourly rolling average. (1) The limit for a parameter may be established and continuously monitored on an hourly rolling average basis defined as follows:

(i) A continuous monitor is one which continuously samples the regulated parameter without interruption, and evaluates the

detector response at least once each 15 seconds, and computes and records the average value at least every 60 seconds.

(ii) An hourly rolling average is the arithmetic mean of the 60 most recent 1-minute average values recorded by the continuous monitoring system.

(2) The permit limit for the parameter shall be established based on trial burn data as the average over all valid test runs of the highest hourly rolling average value for each run.

(ii) Rolling average limits for carcinogenic metals and lead. Feed rate limits for the carcinogenic metals (i.e., arsenic, beryllium, cadmium and chromium) and lead may be established either on an hourly rolling average basis as prescribed by paragraph (e)(6)(i) of this section or on (up to) a 24 hour rolling average basis. If the owner or operator elects to use an average period from 2 to 24 hours:

(A) The feed rate of each metal shall be limited at any time to ten times the feed rate that would be allowed on an hourly rolling average basis;

(B) The continuous monitor shall meet the following specifications:

(1) A continuous monitor is one which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each 15 seconds, and computes and records the average value at least every 60 seconds.

(2) The rolling average for the selected averaging period is defined as the arithmetic mean of one hour block averages for the averaging period. A one hour block average is the arithmetic mean of the one minute averages recorded during the 60-minute period beginning at one minute after the beginning of the preceding clock hour; and

(C) The permit limit for the feed rate of each metal shall be established based on trial burn data as the average over all valid test runs of the highest hourly rolling average feed rate for each run.

(iii) Feed rate limits for metals, total chloride and chlorine, and ash. Feed rate limits for metals, total chlorine and chloride, and ash are established and monitored by knowing the concentration of the substance (i.e., metals,

chloride/chlorine, and ash) in each feedstream and the flow rate of the feedstream. To monitor the feed rate of these substances, the flow rate of each feedstream must be monitored under the continuous monitoring requirements of paragraphs (e)(6) (i) and (ii) of this section.

(iv) Conduct of trial burn testing. (A) If compliance with all applicable emissions standards of §§ 266.104 through 266.107 is not demonstrated simultaneously during a set of test runs, the operating conditions of additional test runs required to demonstrate compliance with remaining emissions standards must be as close as possible to the original operating conditions.

(B) Prior to obtaining test data for purposes of demonstrating compliance with the emissions standards of §§ 266.104 through 266.107 or establishing limits on operating parameters under this section, the facility must operate under trial burn conditions for a sufficient period to reach steady-state operations. The Director may determine, however, that industrial furnaces that recycle collected particulate matter back into the furnace and that comply with an alternative implementation approach for metals under § 266.106(f) need not reach steady state conditions with respect to the flow of metals in the system prior to beginning compliance testing for metals emissions.

(C) Trial burn data on the level of an operating parameter for which a limit must be established in the permit must be obtained during emissions sampling for the pollutant(s) (i.e., metals, PM, HCl/Cl₂, organic compounds) for which the parameter must be established as specified by paragraph (e) of this section.

(7) General requirements-(i) Fugitive emissions. Fugitive emissions must be controlled by:

(A) Keeping the combustion zone totally sealed against fugitive emissions; or

(B) Maintaining the combustion zone pressure lower than atmospheric pressure; or

(C) An alternate means of control demonstrated (with part B of the permit application) to provide fugitive emissions control equivalent to maintenance of combustion zone pressure lower than atmospheric pressure.

(ii) Automatic waste feed cutoff. A boiler or industrial furnace must be operated with a functioning system that automatically cuts off the hazardous waste feed when operating

conditions deviate from those established under this section. The Director may limit the number of cutoffs per an operating period on a case-by-case basis. In addition:

(A) The permit limit for (the indicator of) minimum combustion chamber temperature must be maintained while hazardous waste or hazardous waste residues remain in the combustion chamber,

(B) Exhaust gases must be ducted to the air pollution control system operated in accordance with the permit requirements while hazardous waste or hazardous waste residues remain in the combustion chamber; and

(C) Operating parameters for which permit limits are established must continue to be monitored during the cutoff, and the hazardous waste feed shall not be restarted until the levels of those parameters comply with the permit limits. For parameters that may be monitored on an instantaneous basis, the Director will establish a minimum period of time after a waste feed cutoff during which the parameter must not exceed the permit limit before the hazardous waste feed may be restarted.

(iii) Changes. A boiler or industrial furnace must cease burning hazardous waste when changes in combustion properties, or feed rates of the hazardous waste, other fuels, or industrial furnace feedstocks, or changes in the boiler or industrial furnace design or operating conditions deviate from the limits as specified in the permit.

(8) Monitoring and Inspections. (i) The owner or operator must monitor and record the following, at a minimum, while burning hazardous waste:

(A) If specified by the permit, feed rates and composition of hazardous waste, other fuels, and industrial furnace feedstocks, and feed rates of ash, metals, and total chloride and chlorine;

(B) If specified by the permit, carbon monoxide (CO), hydrocarbons (HC), and oxygen on a continuous basis at a common point in the boiler or industrial furnace downstream of the combustion zone and prior to release of stack gases to the atmosphere in accordance with operating requirements specified in paragraph (e)(2)(ii) of this section. CO, HC, and oxygen monitors must be installed, operated, and maintained in accordance with methods specified in Appendix IX of this Section

(C) Upon the request of the Director, sampling and analysis of the hazardous waste (and other fuels and industrial furnace feedstocks as appropriate), residues, and exhaust emissions must be conducted to verify that the operating requirements established in the permit achieve the applicable standards of §§ 266.104, 266.105, 266.106, and 266.107.

(ii) All monitors shall record data in units corresponding to the permit limit unless otherwise specified in the permit.

(iii) The boiler or industrial furnace and associated equipment (pumps, valves, pipes, fuel storage tanks, etc.) must be subjected to thorough visual inspection when it contains hazardous waste, at least daily for leaks, spills, fugitive emissions, and signs of tampering.

(iv) The automatic hazardous waste feed cutoff system and associated alarms must be tested at least once every 7 days when hazardous waste is burned to verify operability, unless the applicant demonstrates to the Director that weekly inspections will unduly restrict or upset operations and that less frequent inspections will be adequate. At a minimum, operational testing must be conducted at least once every 30 days.

(v) These monitoring and inspection data must be recorded and the records must be placed in the operating record required by § 264.73 of this regulation.

(9) Direct transfer to the burner. If hazardous waste is directly transferred from a transport vehicle to a boiler or industrial furnace without the use of a storage unit, the owner and operator must comply with § 266.111.

(10) Recordkeeping. The owner or operator must maintain in the operating record of the facility all information and data required by this section for five (5) years.

(11) Closure. At closure, the owner or operator must remove all hazardous waste and hazardous waste residues (including, but not limited to, ash, scrubber waters, and scrubber sludges) from the boiler or industrial furnace.

§ 266.103 Interim status standards for burners.

(a) Purpose, scope, applicability - (1) General. (i) The purpose of this section is to establish minimum national standards for owners and operators of “existing” boilers and industrial furnaces that burn hazardous waste where such standards define the acceptable management of hazardous waste during the period of interim status. The standards of this section apply to owners and operators of existing facilities

until either a permit is issued under § 266.102(d) or until closure responsibilities identified in this section are fulfilled.

(ii) “Existing or in existence” means a boiler or industrial furnace that on or before August 21, 1991 is either in operation burning or processing hazardous waste or for which construction (including the ancillary facilities to burn or to process the hazardous waste) has commenced. A facility has commenced construction if the owner or operator has obtained the Federal, State, and local approvals or permits necessary to begin physical construction; and either:

(A) A continuous on-site, physical construction program has begun; or

(B) The owner or operator has entered into contractual obligations which cannot be canceled or modified without substantial loss-for physical construction of the facility to be completed within a reasonable time.

(iii) If a boiler or industrial furnace is located at a facility that already has a permit or interim status, then the facility must comply with the applicable regulations dealing with permit modifications in § 270.42 or changes in interim status in § 270.72 of this regulation.

(2) Exemptions. The requirements of this section do not apply to hazardous waste and facilities exempt under §§ 266.100(b), or 266.108.

(3) Prohibition on burning dioxin-listed wastes. The following hazardous waste listed for dioxin and hazardous waste derived from any of these wastes may not be burned in a boiler or industrial furnace operating under interim status: F020, F021, F022, F023, F026, and F027.

(4) Applicability of Section 265 standards. Owners and operators of boilers and industrial furnaces that burn hazardous waste and are operating under interim status are subject to the following provisions of section 265 of this regulation, except as provided otherwise by this section:

(i) In subsection A (General), § 265.4;

(ii) In subsection B (General facility standards), §§ 265.11-265.17;

(iii) In subsection C (Preparedness and prevention), §§ 265.31-265.37;

(iv) In subsection D (Contingency plan and emergency procedures), §§ 265.51-265.56;

(v) In subsection E (Manifest system, recordkeeping, and reporting), §§ 265.71-265.77, except that §§ 265.71, 265.72, and 265.76 do not apply to owners and operators of on-site facilities that do not receive any hazardous waste from off-site sources;

(vi) In subsection G (Closure and post-closure), §§ 265.111-265.115;

(vii) In subsection H (Financial

requirements), §§ 265.141, 265.142, 265.143, and 265.147 – 265.150, except that States and the Federal government are exempt from the requirements of Subsection H; and

(viii) Subsection BB (Air emission standards for equipment leaks), except § 265.1050(a).

(5) Special requirements for furnaces. The following controls apply during interim status to industrial furnaces (e.g., kilns, cupolas) that feed hazardous waste for a purpose other than solely as an ingredient (see paragraph (a)(5)(ii) of this section) at any location other than the hot end where products are normally discharged or where fuels are normally fired:

(i) Controls. (A) The hazardous waste shall be fed at a location where combustion gas temperatures are at least 1800 °F;

(B) The owner or operator must determine that adequate oxygen is present in combustion gases to combust organic constituents in the waste and retain documentation of such determination in the facility record;

(C) For cement kiln systems, the hazardous waste shall be fed into the kiln; and

(D) The hydrocarbon controls of § 266.104(c) or paragraph (c)(5) of this section apply upon certification of compliance under paragraph (c) of this section irrespective of the CO level achieved during the compliance test.

(ii) Burning hazardous waste solely as an ingredient. A hazardous waste is burned for a purpose other than solely as an ingredient if it meets either of these criteria:

(A) The hazardous waste has a total concentration of nonmetal compounds listed in Section 261, Appendix VIII, of this regulation exceeding 500 ppm by weight, as-fired, and so is considered to be burned for destruction. The concentration of nonmetal compounds in a waste as-generated may be reduced to the 500 ppm limit by bona fide treatment that removes or destroys nonmetal constituents. Blending for dilution to meet the 500 ppm limit is prohibited and documentation that the waste has not been impermissibly diluted must be retained in the facility record; or

(B) The hazardous waste has a heating value of 5,000 Btu/lb or more, as-fired, and so is considered to be burned as fuel. The heating value of a waste as-generated may be reduced to below the 5,000 Btu/lb limit by bona fide treatment that removes

or destroys organic constituents. Blending to augment the heating value to meet the 5,000 Btu/lb limit is prohibited and documentation that the waste has not been impermissibly blended must be retained in the facility record.

(6) Restrictions on burning hazardous waste that is not a fuel. Prior to certification of compliance under paragraph (c) of this section, owners and operators shall not feed hazardous waste that has a heating value less than 5,000 Btu/lb, as-generated, (except that the heating value of a waste as-generated may be increased to above the 5,000 Btu/lb limit by bona fide treatment; however, blending to augment the heating value to meet the 5,000 Btu/lb limit is prohibited and records must be kept to document that impermissible blending has not occurred) in a boiler or industrial furnace, except that:

(i) Hazardous waste may be burned solely as an ingredient; or

(ii) Hazardous waste may be burned for purposes of compliance testing (or testing prior to compliance testing) for a total period of time not to exceed 720 hours; or

(iii) Such waste may be burned if the Director has documentation to show that, prior to August 21, 1991:

(A) The boiler or industrial furnace is operating under the interim status standards for incinerators provided by subsection O of section 265 of this regulation, or the interim status standards for thermal treatment units provided by subsection P of Section 265 of this regulation; and

(B) The boiler or industrial furnace met the interim status eligibility requirements under § 270.70 of this regulation for subsection O or subsection P of Section 265 of this regulation; and

(C) Hazardous waste with a heating value less than 5,000 Btu/lb was burned prior to that date; or

(iv) Such waste may be burned in a halogen acid furnace if the waste was burned as an excluded ingredient under § 261.2(e) of this regulation prior to February 21, 1991 and documentation is kept on file supporting this claim.

(7) Direct transfer to the burner. If hazardous waste is directly transferred from a transport vehicle to a boiler or industrial furnace without the use of a storage unit, the owner and operator must comply with § 266.111.

(b) Certification of precompliance-(1) General. The owner or operator must provide complete and accurate information specified in paragraph (b)(2) of this section to the Director on or before August 21, 1991, and must establish

limits for the operating parameters specified in paragraph (b)(3) of this section. Such information is termed a “certification of precompliance” and constitutes a certification that the owner or operator has determined that, when the facility is operated within the limits specified in paragraph (b)(3) of this section, the owner or operator believes that, using best engineering judgment, emissions of particulate matter, metals, and HCl and Cl₂ are not likely to exceed the limits provided by §§ 266.105, 266.106, and 266.107. The facility may burn hazardous waste only under the operating conditions that the owner or operator establishes under paragraph (b)(3) of this section until the owner or operator submits a revised certification of precompliance under paragraph (b)(8) of this section or a certification of compliance under paragraph (c) of this section, or until a permit is issued.

(2) Information required. The following information must be submitted with the certification of precompliance to support the determination that the limits established for the operating parameters identified in paragraph (b)(3) of this section are not likely to result in an exceedance of the allowable emission rates for particulate matter, metals, and HCl and Cl₂:

(i) General facility information:

(A) EPA facility ID number;

(B) Facility name, contact person, telephone number, and address;

(C) Description of boilers and industrial furnaces burning hazardous waste, including type and capacity of device;

(D) A scaled plot plan showing the entire facility and location of the boilers and industrial furnaces burning hazardous waste; and

(E) A description of the air pollution control system on each device burning hazardous waste, including the temperature of the flue gas at the inlet to the particulate matter control system.

(ii) Except for facilities complying with the Tier I or Adjusted Tier I feed rate screening limits for metals or total chlorine and chloride provided by §§ 266.106 (b) or (e) and 266.107 (b)(1) or (e), respectively, the estimated uncontrolled (at the inlet to the air pollution control system) emissions of particulate matter, each metal controlled by § 266.106, and hydrogen chloride and chlorine, and the following information to support such determinations:

(A) The feed rate (lb/hr) of ash, chlorine, antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, and thallium in each feedstream (hazardous waste, other fuels, industrial furnace feedstocks);

(B) The estimated partitioning factor to

the combustion gas for the materials identified in paragraph (b)(2)(ii)(A) of this section and the basis for the estimate and an estimate of the partitioning to HCl and Cl₂ of total chloride and chlorine in feed materials. To estimate the partitioning factor, the owner or operator must use either best engineering judgment or the procedures specified in Appendix IX of this section.

(C) For industrial furnaces that recycle collected particulate matter (PM) back into the furnace and that will certify compliance with the metals emissions standards under paragraph (c)(3)(ii)(A), the estimated enrichment factor for each metal. To estimate the enrichment factor, the owner or operator must use either best engineering judgment or the procedures specified in “Alternative Methodology for Implementing Metals Controls” in Appendix IX of this section.

(D) If best engineering judgment is used to estimate partitioning factors or enrichment factors under paragraphs (b)(2)(ii)(B) or (b)(2)(ii)(C) respectively, the basis for the judgment. When best engineering judgment is used to develop or evaluate data or information and make determinations under this section, the determinations must be made by a qualified, registered professional engineer and a certification of his/her determinations in accordance with § 270.11(d) of this regulation must be provided in the certification of precompliance.

(iii) For facilities complying with the Tier I or Adjusted Tier I feed rate screening limits for metals or total chlorine and chloride provided by §§ 266.106 (b) or (e) and 266.107 (b)(1) or (e), the feed rate (lb/hr) of total chloride and chlorine, antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, and thallium in each feed stream (hazardous waste, other fuels, industrial furnace feedstocks).

(iv) For facilities complying with the Tier II or Tier III emission limits for metals or HCl and Cl₂ (under §§ 266.106 (c) or (d) or 266.107(b)(2) or (c)), the estimated controlled (outlet of the air pollution control system) emissions rates of particulate matter, each metal controlled by § 266.106, and HCl and Cl₂, and the following information to support such determinations:

(A) The estimated air pollution control system (APCS) removal efficiency for

particulate matter, HCl, Cl₂, antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, and thallium.

(B) To estimate APCS removal efficiency, the owner or operator must use either best engineering judgment or the procedures prescribed in Appendix IX of this section.

(C) If best engineering judgment is used to estimate APCS removal efficiency, the basis for the judgment. Use of best engineering judgment must be in conformance with provisions of paragraph (b)(2)(ii)(D) of this section.

(v) Determination of allowable emissions rates for HCl, Cl₂, antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, and thallium, and the following information to support such determinations:

(A) For all facilities:

- (1) Physical stack height;
- (2) Good engineering practice stack height as defined by 40 CFR 51.100(ii);
- (3) Maximum flue gas flow rate;
- (4) Maximum flue gas temperature;
- (5) Attach a US Geological Service topographic map (or equivalent) showing the facility location and surrounding land within 5 km of the facility;
- (6) Identify terrain type: complex or noncomplex; and
- (7) Identify land use: urban or rural.

(B) For owners and operators using Tier III site specific dispersion modeling to determine allowable levels under § 266.106(d) or § 266.107(c), or adjusted Tier I feed rate screening limits under §§ 266.106(e) or 266.107(e):

- (1) Dispersion model and version used;
- (2) Source of meteorological data;
- (3) The dilution factor in micrograms per cubic meter per gram per second of emissions for the maximum annual average off-site (unless on-site is required) ground level concentration (MEI location); and
- (4) Indicate the MEI location on the map required under paragraph (b)(2)(v)(A)(5);

(vi) For facilities complying with the Tier II or III emissions rate controls for metals or

HCl and Cl₂, a comparison of the estimated controlled emissions rates determined under paragraph (b)(2)(iv) with the allowable emission rates determined under paragraph (b)(2)(v);

(vii) For facilities complying with the Tier I (or adjusted Tier I) feed rate screening limits for metals or total chloride and chlorine, a comparison of actual feed rates of each metal and total chlorine and chloride determined under paragraph (b)(2)(iii) of this section to the Tier I allowable feed rates; and

(viii) For industrial furnaces that feed hazardous waste for any purpose other than solely as an ingredient (as defined by paragraph (a)(5)(ii) of this section) at any location other than the product discharge end of the device, documentation of compliance with the requirements of paragraphs (a)(5)(i) (A), (B), and (C) of this section.

(ix) For industrial furnaces that recycle collected particulate matter (PM) back into the furnace and that will certify compliance with the metals emissions standards under paragraph (c)(3)(ii) (A) of this section:

- (A) The applicable particulate matter standard in lb/hr; and
- (B) The precompliance limit on the concentration of each metal in collected PM.

(3) Limits on operating conditions. The owner and operator shall establish limits on the following parameters consistent with the determinations made under paragraph (b)(2) of this section and certify (under provisions of paragraph (b)(9) of this section) to the Director that the facility will operate within the limits during interim status when there is hazardous waste in the unit until revised certification of precompliance under paragraph (b)(8) of this section or certification of compliance under paragraph (c) of this section:

(i) Feed rate of total hazardous waste and (unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under § 266.106(b) or (e)) pumpable hazardous waste;

(ii) Feed rate of each metal in the following feed streams:

(A) Total feed streams, except that industrial furnaces that comply with the alternative metals implementation approach under paragraph (b)(4) of this section must specify limits on the concentration of each metal in collected particulate matter in lieu of feed rate limits for total feedstreams;

(B) Total hazardous waste feed, unless

complying with the Tier I or Adjusted Tier I metals feed rate screening limits under § 266.106 (b) or (e); and

(C) Total pumpable hazardous waste feed, unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under § 266.106 (b) or (e);

(iii) Total feed rate of chlorine and chloride in total feed streams;

(iv) Total feed rate of ash in total feed streams, except that the ash feed rate for cement kilns and light-weight aggregate kilns is not limited; and

(v) Maximum production rate of the device in appropriate units when producing normal product, unless complying with the Tier I or Adjusted Tier I feed rate screening limits for chlorine under § 266.107 (b)(1) or (e) and for all metals under § 266.106 (b) or (e), and the uncontrolled particulate emissions do not exceed the standard under § 266.105.

(4) Operating requirements for furnaces that recycle PM. Owners and operators of furnaces that recycle collected particulate matter (PM) back into the furnace and that will certify compliance with the metals emissions controls under paragraph (c)(3)(ii)(A) of this section must comply with the special operating requirements provided in "Alternative Methodology for Implementing Metals Controls" in Appendix IX of this section.

(5) Measurement of feed rates and production rate-(i) General requirements. Limits on each of the parameters specified in paragraph (b)(3) of this section (except for limits on metals concentrations in collected particulate matter (PM) for industrial furnaces that recycle collected PM) shall be established and continuously monitored under either of the following methods:

(A) Instantaneous limits. A limit for a parameter may be established and continuously monitored and recorded on an instantaneous basis (i.e., the value that occurs at any time) not to be exceeded at any time; or

(B) Hourly rolling average limits. A limit for a parameter may be established and continuously monitored on an hourly rolling average basis defined as follows:

(1) A continuous monitor is one which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each 15 seconds, and computes and records the average value at least every 60 seconds.

(2) An hourly rolling average is the

arithmetic mean of the 60 most recent 1-minute average values recorded by the continuous monitoring system.

(ii) Rolling average limits for carcinogenic metals and lead. Feed rate limits for the carcinogenic metals (arsenic, beryllium, cadmium, and chromium) and lead may be established either on an hourly rolling average basis as prescribed by paragraph (b)(5)(i)(B) or on (up to) a 24 hour rolling average basis. If the owner or operator elects to use an averaging period from 2 to 24 hours:

(A) The feed rate of each metal shall be limited at any time to ten times the feed rate that would be allowed on an hourly rolling average basis;

(B) The continuous monitor shall meet the following specifications:

(1) A continuous monitor is one which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each 15 seconds, and computes and records the average value at least every 60 seconds.

(2) The rolling average for the selected averaging period is defined as the arithmetic mean of one hour block averages for the averaging period. A one hour block average is the arithmetic mean of the one minute averages recorded during the 60-minute period beginning at one minute after the beginning of preceding clock hour.

(iii) Feed rate limits for metals, total chloride and chlorine, and ash. Feed rate limits for metals, total chlorine and chloride, and ash are established and monitored by knowing the concentration of the substance (i.e., metals, chloride/chlorine, and ash) in each feedstream and the flow rate of the feedstream. To monitor the feed rate of these substances, the flow rate of each feedstream must be monitored under the continuous monitoring requirements of paragraphs (b)(5) (i) and (ii) of this section.

(6) Public notice requirements at precompliance. On or before August 21, 1991 the owner or operator must submit a notice with the following information for publication in a major local newspaper of general circulation and send a copy of the notice to the appropriate units of State and local government. The owner and operator must provide to the Director with the certification of precompliance evidence of submitting the notice for publication. The notice,

which shall be entitled “Notice of Certification of Precompliance with Hazardous Waste Burning Requirements of 40 CFR 266.103(b)”, must include:

- (i) Name and address of the owner and operator of the facility as well as the location of the device burning hazardous waste;
- (ii) Date that the certification of precompliance is submitted to the Director;
- (iii) Brief description of the regulatory process required to comply with the interim status requirements of this section including required emissions testing to demonstrate conformance with emissions standards for organic compounds, particulate matter, metals, and HCl and Cl₂;
- (iv) Types and quantities of hazardous waste burned including, but not limited to, source, whether solids or liquids, as well as an appropriate description of the waste;
- (v) Type of device(s) in which the hazardous waste is burned including a physical description and maximum production rate of each device;
- (vi) Types and quantities of other fuels and industrial furnace feedstocks fed to each unit;
- (vii) Brief description of the basis for this certification of precompliance as specified in paragraph (b)(2) of this section;
- (viii) Locations where the record for the facility can be viewed and copied by interested parties. These records and locations shall at a minimum include:
 - (A) The administrative record kept by the Agency office where the supporting documentation was submitted or another location designated by the Director; and
 - (B) The BIF correspondence file kept at the facility site where the device is located. The correspondence file must include all correspondence between the facility and the Director, state and local regulatory officials, including copies of all certifications and notifications, such as the precompliance certification, precompliance public notice, notice of compliance testing, compliance test report, compliance certification, time extension requests and approvals or denials, enforcement notifications of violations, and copies of EPA and State site visit reports submitted to the owner or operator.
- (ix) Notification of the establishment of a facility mailing list whereby interested parties shall notify the Agency that they wish to be placed on the mailing list to receive future information and notices about this facility; and

(x) Location (mailing address) of the Department’s Hazardous Waste Division, where further information can be obtained on EPA and state regulation of hazardous waste burning.

(7) Monitoring other operating parameters. When the monitoring systems for the operating parameters listed in paragraphs (c)(1)(v through xiii) of this section are installed and operating in conformance with vendor specifications or (for CO, HC, and oxygen) specifications provided by Appendix IX of this section, as appropriate, the parameters shall be continuously monitored and records shall be maintained in the operating record.

(8) Revised certification of precompliance. The owner or operator may revise at any time the information and operating conditions documented under paragraphs (b)(2) and (b)(3) of this section in the certification of precompliance by submitting a revised certification of precompliance under procedures provided by those paragraphs.

(i) The public notice requirements of paragraph (b)(6) of this section do not apply to recertifications.

(ii) The owner and operator must operate the facility within the limits established for the operating parameters under paragraph (b)(3) of this section until a revised certification is submitted under this paragraph or a certification of compliance is submitted under paragraph (c) of this section.

(9) Certification of precompliance statement. The owner or operator must include the following signed statement with the certification of precompliance submitted to the Director:

“I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information and supporting documentation. Copies of all emissions tests, dispersion modeling results and other information used to determine conformance with the requirements of § 266.103(b) are available at the facility and can be obtained from the facility contact person listed above. Based on my inquiry of the person or persons who manages the facility, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also acknowledge that the operating limits established in this certification pursuant to § 266.103(b) (3) and (4) are enforceable limits at which the facility can legally operate during interim status until: (1) A revised certification of precompliance is submitted, (2) a certification of compliance is submitted, or (3) an operating permit is issued.”

(c) Certification of compliance. The owner or operator shall conduct emissions testing to document compliance with the emissions standards of §§ 266.104 (b) through (e), 266.105, 266.106, 266.107, and paragraph (a)(5)(i)(D) of this section, under the procedures prescribed by this paragraph, except under extensions of time provided by paragraph (c)(7). Based on the compliance test, the owner or operator

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shall submit to the Director on or before August 21, 1992 a complete and accurate "certification of compliance" (under paragraph (c)(4) of this section) with those emission standards establishing limits on the operating parameters specified in paragraph (c)(1).

(1) Limits on operating conditions. The owner or operator shall establish limits on the following parameters based on operations during the compliance test (under procedures prescribed in paragraph (c)(4)(iv) of this section) or as otherwise specified and include these limits with the certification of compliance. The boiler or industrial furnace must be operated in accordance with these operating limits and the applicable emissions standards of §§ 266.104(b) through (e), 266.105, 266.106, 266.107, and 266.103(a)(5)(i)(D) at all times when there is hazardous waste in the unit.

(i) Feed rate of total hazardous waste and (unless complying with the Tier I or adjusted Tier I metals feed rate screening limits under § 266.106(b) or (e)), pumpable hazardous waste;

(ii) Feed rate of each metal in the following feedstreams:

(A) Total feedstreams, except that:

(1) Facilities that comply with Tier I or Adjusted Tier I metals feed rate screening limits may set their operating limits at the metals feed rate screening limits determined under § 266.106(b) or (e); and

(2) Industrial furnaces that must comply with the alternative metals implementation approach under paragraph (c)(3)(ii) of this section must specify limits on the concentration of each metal in the collected particulate matter in lieu of feed rate limits for total feedstreams;

(B) Total hazardous waste feed (unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under § 266.106(b) or (e)); and

(C) Total pumpable hazardous waste feed (unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under § 266.106(b) or (e));

(iii) Total feed rate of chlorine and chloride in total feed streams, except that facilities that comply with Tier I or Adjusted Tier I feed rate screening limits may set their operating limits at the total chlorine and chloride feed rate screening limits determined under § 266.107(b)(1) or (e);

(iv) Total feed rate of ash in total feed streams, except that the ash feed rate for

cement kilns and light-weight aggregate kilns is not limited;

(v) Carbon monoxide concentration, and where required, hydrocarbon concentration in stack gas. When complying with the CO controls of § 266.104(b), the CO limit is 100 ppmv, and when complying with the HC controls of § 266.104(c), the HC limit is 20 ppmv. When complying with the CO controls of § 266.104(c), the CO limit is established based on the compliance test;

(vi) Maximum production rate of the device in appropriate units when producing normal product, unless complying with the Tier I or Adjusted Tier I feed rate screening limits for chlorine under § 266.107(b)(1) or (e) and for all metals under § 266.106(b) or (e), and the uncontrolled particulate emissions do not exceed the standard under § 266.105;

(vii) Maximum combustion chamber temperature where the temperature measurement is as close to the combustion zone as possible and is upstream of any quench water injection (unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under § 266.106(b) or (e));

(viii) Maximum flue gas temperature entering a particulate matter control device (unless complying with Tier I or Adjusted Tier I metals feed rate screening limits under § 266.106(b) or (e) and the total chlorine and chloride feed rate screening limits under § 266.107(b) or (e));

(ix) For systems using wet scrubbers, including wet ionizing scrubbers (unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under § 266.106(b) or (e) and the total chlorine and chloride feed rate screening limits under § 266.107(b)(1) or (e)):

(A) Minimum liquid to flue gas ratio;

(B) Minimum scrubber blowdown from the system or maximum suspended solids content of scrubber water; and

(C) Minimum pH level of the scrubber water;

(x) For systems using venturi scrubbers, the minimum differential gas pressure across the venturi (unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under § 266.106(b) or (e) and the total chlorine and chloride feed rate screening limits under § 266.107(b)(1) or (e));

(xi) For systems using dry scrubbers (unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under § 266.106(b) or (e) and the total chlorine and

chloride feed rate screening limits under § 266.107(b)(1) or (e)):

- (A) Minimum caustic feed rate; and
- (B) Maximum flue gas flow rate;

(xii) For systems using wet ionizing scrubbers or electrostatic precipitators (unless complying with the Tier I or Adjusted Tier I metals feed rate screening limits under § 266.106(b) or (e) and the total chlorine and chloride feed rate screening limits under § 266.107(b)(1) or (e)):

- (A) Minimum electrical power in kilovolt amperes (kVA) to the precipitator plates; and
- (B) Maximum flue gas flow rate;

(xiii) For systems using fabric filters (baghouses), the minimum pressure drop (unless complying with the Tier I or Adjusted Tier I metal feed rate screening limits under § 266.106(b) or (e) and the total chlorine and chloride feed rate screening limits under § 266.107(b)(1) or (e)).

(2) Prior notice of compliance testing. At least 30 days prior to the compliance testing required by paragraph (c)(3) of this section, the owner or operator shall notify the Director and submit the following information:

- (i) General facility information including:
 - (A) EPA facility ID number;
 - (B) Facility name, contact person, telephone number, and address;
 - (C) Person responsible for conducting compliance test, including company name, address, and telephone number, and a statement of qualifications;
 - (D) Planned date of the compliance test;
- (ii) Specific information on each device to be tested including:
 - (A) Description of boiler or industrial furnace;
 - (B) A scaled plot plan showing the entire facility and location of the boiler or industrial furnace;
 - (C) A description of the air pollution control system;
 - (D) Identification of the continuous emission monitors that are installed, including:
 - (1) Carbon monoxide monitor;
 - (2) Oxygen monitor;
 - (3) Hydrocarbon monitor, specifying the minimum temperature of the system and, if the temperature is less than 150 °C, an explanation of why a heated system is not used (see paragraph (c)(5) of this section) and a brief description of the sample gas

conditioning system;

(E) Indication of whether the stack is shared with another device that will be in operation during the compliance test;

(F) Other information useful to an understanding of the system design or operation.

(iii) Information on the testing planned, including a complete copy of the test protocol and Quality Assurance/Quality Control (QA/QC) plan, and a summary description for each test providing the following information at a minimum:

- (A) Purpose of the test (e.g., demonstrate compliance with emissions of particulate matter); and
- (B) Planned operating conditions, including levels for each pertinent parameter specified in paragraph (c)(1) of this section.

(3) Compliance testing. - (i) General. Compliance testing must be conducted under conditions for which the owner or operator has submitted a certification of precompliance under paragraph (b) of this section and under conditions established in the notification of compliance testing required by paragraph (c)(2) of this section. The owner or operator may seek approval on a case-by-case basis to use compliance test data from one unit in lieu of testing a similar onsite unit. To support the request, the owner or operator must provide a comparison of the hazardous waste burned and other feedstreams, and the design, operation, and maintenance of both the tested unit and the similar unit. The Director shall provide a written approval to use compliance test data in lieu of testing a similar unit if he finds that the hazardous wastes, the devices, and the operating conditions are sufficiently similar, and the data from the other compliance test is adequate to meet the requirements of § 266.103(c).

(ii) Special requirements for industrial furnaces that recycle collected PM. Owners and operators of industrial furnaces that recycle back into the furnace particulate matter (PM) from the air pollution control system must comply with one of the following procedures for testing to determine compliance with the metals standards of § 266.106(c) or (d):

- (A) The special testing requirements prescribed in “Alternative Method for Implementing Metals Controls” in Appendix IX of this section; or
- (B) Stack emissions testing for a minimum of 6 hours each day while hazardous waste is burned during interim status. The testing must be conducted when burning normal hazardous waste for that day at normal

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feed rates for that day and when the air pollution control system is operated under normal conditions. During interim status, hazardous waste analysis for metals content must be sufficient for the owner or operator to determine if changes in metals content may affect the ability of the facility to meet the metals emissions standards established under § 266.106(c) or (d). Under this option, operating limits (under paragraph (c)(1) of this section) must be established during compliance testing under paragraph (c)(3) of this section only on the following parameters;

- (1) Feed rate of total hazardous waste;
- (2) Total feed rate of chlorine and chloride in total feed streams;
- (3) Total feed rate of ash in total feed streams, except that the ash feed rate for cement kilns and light-weight aggregate kilns is not limited;
- (4) Carbon monoxide concentration, and where required, hydrocarbon concentration in stack gas;
- (5) Maximum production rate of the device in appropriate units when producing normal product; or

(C) Conduct compliance testing to determine compliance with the metals standards to establish limits on the operating parameters of paragraph (c)(1) of this section only after the kiln system has been conditioned to enable it to reach equilibrium with respect to metals fed into the system and metals emissions. During conditioning, hazardous waste and raw materials having the same metals content as will be fed during the compliance test must be fed at the feed rates that will be fed during the compliance test.

(iii) Conduct of compliance testing. (A) If compliance with all applicable emissions standards of §§ 266.104 through 266.107 is not demonstrated simultaneously during a set of test runs, the operating conditions of additional test runs required to demonstrate compliance with remaining emissions standards must be as close as possible to the original operating conditions.

(B) Prior to obtaining test data for purposes of demonstrating compliance with the applicable emissions standards of §§ 266.104 through 266.107 or establishing limits on operating parameters under this section, the facility must operate under compliance test conditions for a sufficient period to reach

steady-state operations. Industrial furnaces that recycle collected particulate matter back into the furnace and that comply with paragraphs (c)(3)(ii)(A) or (B) of this section, however, need not reach steady state conditions with respect to the flow of metals in the system prior to beginning compliance testing for metals.

(C) Compliance test data on the level of an operating parameter for which a limit must be established in the certification of compliance must be obtained during emissions sampling for the pollutant(s) (i.e., metals, PM, HCl/Cl₂, organic compounds) for which the parameter must be established as specified by paragraph (c)(1) of this section.

(4) Certification of compliance. Within 90 days of completing compliance testing, the owner or operator must certify to the Director compliance with the emissions standards of §§ 266.104(b), (c), and (e), 266.105, 266.106, 266.107, and paragraph (a)(5)(i)(D) of this section. The certification of compliance must include the following information:

(i) General facility and testing information including:

- (A) EPA facility ID number;
- (B) Facility name, contact person, telephone number, and address;
- (C) Person responsible for conducting compliance testing, including company name, address, and telephone number, and a statement of qualifications;
- (D) Date(s) of each compliance test;
- (E) Description of boiler or industrial furnace tested;
- (F) Person responsible for quality assurance/quality control (QA/QC), title, and telephone number, and statement that procedures prescribed in the QA/QC plan submitted under § 266.103(c)(2)(iii) have been followed, or a description of any changes and an explanation of why changes were necessary.

(G) Description of any changes in the unit configuration prior to or during testing that would alter any of the information submitted in the prior notice of compliance testing under paragraph (c)(2) of this section, and an explanation of why the changes were necessary;

(H) Description of any changes in the planned test conditions prior to or during the testing that alter any of the information submitted in the prior notice of compliance testing under paragraph (c)(2) of this section, and an explanation of why the

changes were necessary; and

- (I) The complete report on results of emissions testing.
- (ii) Specific information on each test including:
 - (A) Purpose(s) of test (e.g., demonstrate conformance with the emissions limits for particulate matter, metals, HCl, Cl₂, and CO)
 - (B) Summary of test results for each run and for each test including the following information:
 - (1) Date of run;
 - (2) Duration of run;
 - (3) Time-weighted average and highest hourly rolling average CO level for each run and for the test;
 - (4) Highest hourly rolling average HC level, if HC monitoring is required for each run and for the test;
 - (5) If dioxin and furan testing is required under § 266.104(e), time-weighted average emissions for each run and for the test of chlorinated dioxin and furan emissions, and the predicted maximum annual average ground level concentration of the toxicity equivalency factor;
 - (6) Time-weighted average particulate matter emissions for each run and for the test;
 - (7) Time-weighted average HCl and Cl₂ emissions for each run and for the test;
 - (8) Time-weighted average emissions for the metals subject to regulation under § 266.106 for each run and for the test; and
 - (9) QA/QC results.
- (iii) Comparison of the actual emissions during each test with the emissions limits prescribed by §§ 266.104 (b), (c), and (e), 266.105, 266.106, and 266.107 and established for the facility in the certification of precompliance under paragraph (b) of this section.
- (iv) Determination of operating limits based on all valid runs of the compliance test for each applicable parameter listed in paragraph (c)(1) of this section using either of the following procedures:
 - (A) Instantaneous limits. A parameter may be measured and recorded on an instantaneous basis (i.e., the value that occurs at any time) and the operating limit specified as the time-weighted average

during all runs of the compliance test; or

- (B) Hourly rolling average basis. (1) The limit for a parameter may be established and continuously monitored on an hourly rolling average basis defined as follows:
 - (i) A continuous monitor is one which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each 15 seconds, and computes and records the average value at least every 60 seconds.
 - (ii) An hourly rolling average is the arithmetic mean of the 60 most recent 1-minute average values recorded by the continuous monitoring system.
- (2) The operating limit for the parameter shall be established based on compliance test data as the average over all test runs of the highest hourly rolling average value for each run.
- (C) Rolling average limits for carcinogenic metals and lead. Feed rate limits for the carcinogenic metals (i.e., arsenic, beryllium, cadmium and chromium) and lead may be established either on an hourly rolling average basis as prescribed by paragraph (c)(4)(iv)(B) of this section or on (up to) a 24 hour rolling average basis. If the owner or operator elects to use an averaging period from 2 to 24 hours:
 - (1) The feed rate of each metal shall be limited at any time to ten times the feed rate that would be allowed on an hourly rolling average basis;
 - (2) The continuous monitor shall meet the following specifications:
 - (i) A continuous monitor is one which continuously samples the regulated parameter without interruption, and evaluates the detector response at least once each 15 seconds, and computes and records the average value at least every 60 seconds.
 - (ii) The rolling average for the selected averaging period is defined as arithmetic mean of one hour block averages for the averaging period. A one hour block average is the arithmetic mean of the one minute averages

recorded during the 60-minute period beginning at one minute after the beginning of preceding clock hour; and

(3) The operating limit for the feed rate of each metal shall be established based on compliance test data as the average over all test runs of the highest hourly rolling average feed rate for each run.

(D) Feed rate limits for metals, total chloride and chlorine, and ash. Feed rate limits for metals, total chlorine and chloride, and ash are established and monitored by knowing the concentration of the substance (i.e., metals, chloride/chlorine, and ash) in each feedstream and the flow rate of the feedstream. To monitor the feed rate of these substances, the flow rate of each feedstream must be monitored under the continuous monitoring requirements of paragraphs (c)(4)(iv) (A) through (C) of this section.

(v) Certification of compliance statement. The following statement shall accompany the certification of compliance:

"I certify under penalty of law that this information was prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information and supporting documentation. Copies of all emissions tests, dispersion modeling results and other information used to determine conformance with the requirements of § 266.103(c) are available at the facility and can be obtained from the facility contact person listed above. Based on my inquiry of the person or persons who manages the facility, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I also acknowledge that the operating conditions established in this certification pursuant to § 266.103(c)(4)(iv) are enforceable limits at which the facility can legally operate during interim status until a revised certification of compliance is submitted."

(5) Special requirements for HC monitoring systems. When an owner or operator is required to comply with the hydrocarbon (HC) controls provided by Sec. 266.104(c) or paragraph (a)(5)(i)(D) of this section, a conditioned gas monitoring system may be used in conformance with specifications provided in Appendix IX of this section provided that the owner or operator submits a certification of compliance without using extensions of time provided by paragraph (c)(7) of this section.

(6) Special operating requirements for industrial furnaces that recycle collected PM. Owners and operators of industrial furnaces that recycle back into the furnace particulate matter (PM) from the air pollution control system must:

(i) When complying with the requirements

of paragraph (c)(3)(ii)(A) of this section, comply with the operating requirements prescribed in "Alternative Method to Implement the Metals Controls" in Appendix IX of this section; and

(ii) When complying with the requirements of paragraph (c)(3)(ii)(B) of this section, comply with the operating requirements prescribed by that paragraph.

(7) Extensions of time. (i) If the owner or operator does not submit a complete certification of compliance for all of the applicable emissions standards of §§ 266.104, 266.105, 266.106, and 266.107 by August 21, 1992, he/she must either:

(A) Stop burning hazardous waste and begin closure activities under paragraph (l) of this section for the hazardous waste portion of the facility; or

(B) Limit hazardous waste burning only for purposes of compliance testing (and pretesting to prepare for compliance testing) a total period of 720 hours for the period of time beginning August 21, 1992, submit a notification to the Director by August 21, 1992 stating that the facility is operating under restricted interim status and intends to resume burning hazardous waste, and submit a complete certification of compliance by August 23, 1993; or

(C) Obtain a case-by-case extension of time under paragraph (c)(7)(ii) of this section.

(ii) The owner or operator may request a case-by-case extension of time to extend any time limit provided by paragraph (c) of this section if compliance with the time limit is not practicable for reasons beyond the control of the owner or operator.

(A) In granting an extension, the Director may apply conditions as the facts warrant to ensure timely compliance with the requirements of this section and that the facility operates in a manner that does not pose a hazard to human health and the environment;

(B) When an owner or operator requests an extension of time to enable the facility to comply with the alternative hydrocarbon provisions of § 266.104(f) and obtain a RCRA operating permit because the facility cannot meet the HC limit of § 266.104(c) of this regulation:

(1) The Director shall, in considering whether to grant the extension:

(i) Determine whether the owner and operator have

submitted in a timely manner a complete part B permit application that includes information required under § 270.22(b) of this regulation; and

(ii) Consider whether the owner and operator have made a good faith effort to certify compliance with all other emission controls, including the controls on dioxins and furans of § 266.104(e) and the controls on PM, metals, and HCl/Cl₂.

(2) If an extension is granted, the Director shall, as a condition of the extension, require the facility to operate under flue gas concentration limits on CO and HC that, based on available information, including information in the part B permit application, are baseline CO and HC levels as defined by § 266.104(f)(1).

(8) Revised certification of compliance. The owner or operator may submit at any time a revised certification of compliance (recertification of compliance) under the following procedures:

(i) Prior to submittal of a revised certification of compliance, hazardous waste may not be burned for more than a total of 720 hours under operating conditions that exceed those established under a current certification of compliance, and such burning may be conducted only for purposes of determining whether the facility can operate under revised conditions and continue to meet the applicable emissions standards of §§ 266.104, 266.105, 266.106, and 266.107;

(ii) At least 30 days prior to first burning hazardous waste under operating conditions that exceed those established under a current certification of compliance, the owner or operator shall notify the Director and submit the following information:

(A) EPA facility ID number, and facility name, contact person, telephone number, and address;

(B) Operating conditions that the owner or operator is seeking to revise and description of the changes in facility design or operation that prompted the need to seek to revise the operating conditions;

(C) A determination that when operating under the revised operating conditions, the applicable emissions standards of §§ 266.104, 266.105, 266.106, and 266.107 are not likely to be exceeded. To document this determination, the owner or operator

shall submit the applicable information required under paragraph (b)(2) of this section; and

(D) Complete emissions testing protocol for any pretesting and for a new compliance test to determine compliance with the applicable emissions standards of §§ 266.104, 266.105, 266.106, and 266.107 when operating under revised operating conditions. The protocol shall include a schedule of pre-testing and compliance testing. If the owner and operator revises the scheduled date for the compliance test, he/she shall notify the Director in writing at least 30 days prior to the revised date of the compliance test;

(iii) Conduct a compliance test under the revised operating conditions and the protocol submitted to the Director to determine compliance with the applicable emissions standards of §§ 266.104, 266.105, 266.106, and 266.107; and

(iv) Submit a revised certification of compliance under paragraph (c)(4) of this section.

(d) Periodic Recertifications. The owner or operator must conduct compliance testing and submit to the Director a recertification of compliance under provisions of paragraph (c) of this section within five (5) years from submitting the previous certification or recertification. If the owner or operator seeks to recertify compliance under new operating conditions, he/she must comply with the requirements of paragraph (c)(8) of this section.

(e) Noncompliance with certification schedule. If the owner or operator does not comply with the interim status compliance schedule provided by paragraphs (b), (c), and (d) of this section, hazardous waste burning must terminate on the date that the deadline is missed, closure activities must begin under paragraph (l) of this section, and hazardous waste burning may not resume except under an operating permit issued under § 270.66 of this regulation. For purposes of compliance with the closure provisions of paragraph (l) of this section and §§ 265.112(d)(2) and 265.113 of this regulation the boiler or industrial furnace has received “the known final volume of hazardous waste” on the date that the deadline is missed.

(f) Start-up and shut-down. Hazardous waste (except waste fed solely as an ingredient under the Tier I (or adjusted Tier I) feed rate screening limits for metals and chloride/chlorine) must not be fed into the device during start-up and shut-down of the boiler or industrial furnace, unless the device is operating within the conditions of operation specified in the certification of compliance.

(g) Automatic waste feed cutoff. During the compliance test required by paragraph (c)(3) of this section, and upon certification of compliance under paragraph (c) of this section, a boiler or industrial furnace must be operated with a

functioning system that automatically cuts off the hazardous waste feed when the applicable operating conditions specified in paragraphs (c)(1) (i) and (v through xiii) of this section deviate from those established in the certification of compliance. In addition:

- (1) To minimize emissions of organic compounds, the minimum combustion chamber temperature (or the indicator of combustion chamber temperature) that occurred during the compliance test must be maintained while hazardous waste or hazardous waste residues remain in the combustion chamber, with the minimum temperature during the compliance test defined as either:
 - (i) If compliance with the combustion chamber temperature limit is based on an hourly rolling average, the minimum temperature during the compliance test is considered to be the average over all runs of the lowest hourly rolling average for each run; or
 - (ii) If compliance with the combustion chamber temperature limit is based on an instantaneous temperature measurement, the minimum temperature during the compliance test is considered to be the time-weighted average temperature during all runs of the test; and
- (2) Operating parameters limited by the certification of compliance must continue to be monitored during the cutoff, and the hazardous waste feed shall not be restarted until the levels of those parameters comply with the limits established in the certification of compliance.
- (h) Fugitive emissions. Fugitive emissions must be controlled by:
 - (1) Keeping the combustion zone totally sealed against fugitive emissions; or
 - (2) Maintaining the combustion zone pressure lower than atmospheric pressure; or
 - (3) An alternate means of control that the owner or operator can demonstrate provide fugitive emissions control equivalent to maintenance of combustion zone pressure lower than atmospheric pressure. Support for such demonstration shall be included in the operating record.
- (i) Changes. A boiler or industrial furnace must cease burning hazardous waste when changes in combustion properties, or feed rates of the hazardous waste, other fuels, or industrial furnace feedstocks, or changes in the boiler or industrial furnace design or operating conditions deviate from the limits specified in the certification of compliance.
- (j) Monitoring and Inspections. (1) The owner or operator must monitor and record the following, at a minimum, while burning hazardous waste:
 - (i) Feed rates and composition of hazardous waste, other fuels, and industrial furnace feed stocks, and feed rates of ash, metals, and total

chloride and chlorine as necessary to ensure conformance with the certification of precompliance or certification of compliance;

(ii) Carbon monoxide (CO), oxygen, and if applicable, hydrocarbons (HC), on a continuous basis at a common point in the boiler or industrial furnace downstream of the combustion zone and prior to release of stack gases to the atmosphere in accordance with the operating limits specified in the certification of compliance. CO, HC, and oxygen monitors must be installed, operated, and maintained in accordance with methods specified in Appendix IX of this part.

(iii) Upon the request of the Director, sampling and analysis of the hazardous waste (and other fuels and industrial furnace feed stocks as appropriate) and the stack gas emissions must be conducted to verify that the operating conditions established in the certification of precompliance or certification of compliance achieve the applicable standards of §§ 266.104, 266.105, 266.106, and 266.107.

(2) The boiler or industrial furnace and associated equipment (pumps, valves, pipes, fuel storage tanks, etc.) must be subjected to thorough visual inspection when they contain hazardous waste, at least daily for leaks, spills, fugitive emissions, and signs of tampering.

(3) The automatic hazardous waste feed cutoff system and associated alarms must be tested at least once every 7 days when hazardous waste is burned to verify operability, unless the owner or operator can demonstrate that weekly inspections will unduly restrict or upset operations and that less frequent inspections will be adequate. Support for such demonstration shall be included in the operating record. At a minimum, operational testing must be conducted at least once every 30 days.

(4) These monitoring and inspection data must be recorded and the records must be placed in the operating log.

(k) Recordkeeping. The owner or operator must keep in the operating record of the facility all information and data required by this section for five (5) years.

(l) Closure. At closure, the owner or operator must remove all hazardous waste and hazardous waste residues (including, but not limited to, ash, scrubber waters, and scrubber sludges) from the boiler or industrial furnace and must comply with §§ 265.111-265.115 of this regulation.

§ 266.104 Standards to control organic emissions.

(a) DRE standard-(1) General. Except as provided in paragraph (a)(3) of this section, a boiler or industrial furnace

burning hazardous waste must achieve a destruction and removal efficiency (DRE) of 99.99% for all organic hazardous constituents in the waste feed. To demonstrate conformance with this requirement, 99.99% DRE must be demonstrated during a trial burn for each principal organic hazardous constituent (POHC) designated (under paragraph (a)(2) of this section) in its permit for each waste feed. DRE is determined for each POHC from the following equation:

$$\text{DRE} = \left[1 - \frac{W_{\text{out}}}{W_{\text{in}}} \right] \times 100$$

where:

W_{in} = Mass feed rate of one principal organic hazardous constituent (POHC) in the hazardous waste fired to the boiler or industrial furnace; and

W_{out} = Mass emission rate of the same POHC present in stack gas prior to release to the atmosphere.

(2) Designation of POHCs. Principal organic hazardous constituents (POHCs) are those compounds for which compliance with the DRE requirements of this section shall be demonstrated in a trial burn in conformance with procedures prescribed in § 270.66 of this regulation. One or more POHCs shall be designated by the Director for each waste feed to be burned. POHCs shall be designated based on the degree of difficulty of destruction of the organic constituents in the waste and on their concentrations or mass in the waste feed considering the results of waste analyses submitted with part B of the permit application. POHCs are most likely to be selected from among those compounds listed in Section 261, Appendix VIII of this regulation that are also present in the normal waste feed. However, if the applicant demonstrates to the Director's satisfaction that a compound not listed in Appendix VIII or not present in the normal waste feed is a suitable indicator of compliance with the DRE requirements of this section, that compound may be designated as a POHC. Such POHCs need not be toxic or organic compounds.

(3) Dioxin-listed waste. A boiler or industrial furnace burning hazardous waste containing (or derived from) EPA Hazardous Wastes Nos. F020, F021, F022, F023, F026, or F027 must achieve a destruction and removal efficiency (DRE) of 99.9999% for each POHC designated (under paragraph (a)(2) of this section) in its permit. This performance must be demonstrated on POHCs that are more difficult to burn than tetra-, penta-, and hexachlorodibenzo-p-dioxins and dibenzofurans. DRE is determined for each POHC from the equation in paragraph (a)(1) of this section. In addition, the owner or operator of the boiler or industrial furnace must notify the Director of intent to burn EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, or F027.

(4) Automatic waiver of DRE trial burn. Owners and operators of boilers operated under the special operating requirements provided by § 266.110 are considered to be in compliance with the DRE standard of paragraph (a)(1) of this section and are exempt from the DRE trial burn.

(5) Low risk waste. Owners and operators of boilers or industrial furnaces that burn hazardous waste in compliance with the requirements of § 266.109(a) are considered to be in compliance with the DRE standard of paragraph (a)(1) of this section and are exempt from the DRE trial burn.

(b) Carbon monoxide standard. (1) Except as provided in paragraph (c) of this section, the stack gas concentration of carbon monoxide (CO) from a boiler or industrial furnace burning hazardous waste cannot exceed 100 ppmv on an hourly rolling average basis (i.e., over any 60 minute period), continuously corrected to 7 percent oxygen, dry gas basis.

(2) CO and oxygen shall be continuously monitored in conformance with "Performance Specifications for Continuous Emission Monitoring of Carbon Monoxide and Oxygen for Incinerators, Boilers, and Industrial Furnaces Burning Hazardous Waste" in Appendix IX of this part.

(3) Compliance with the 100 ppmv CO limit must be demonstrated during the trial burn (for new facilities or an interim status facility applying for a permit) or the compliance test (for interim status facilities). To demonstrate compliance, the highest hourly rolling average CO level during any valid run of the trial burn or compliance test must not exceed 100 ppmv.

(c) Alternative carbon monoxide standard. (1) The stack gas concentration of carbon monoxide (CO) from a boiler or industrial furnace burning hazardous waste may exceed the 100 ppmv limit provided that stack gas concentrations of hydrocarbons (HC) do not exceed 20 ppmv, except as provided by paragraph (f) of this section for certain industrial furnaces.

(2) HC limits must be established under this section on an hourly rolling average basis (i.e., over any 60 minute period), reported as propane, and continuously corrected to 7 percent oxygen, dry gas basis.

(3) HC shall be continuously monitored in conformance with "Performance Specifications for Continuous Emission Monitoring of Hydrocarbons for Incinerators, Boilers, and Industrial Furnaces Burning Hazardous Waste" in Appendix IX of this section. CO and oxygen shall be continuously monitored in conformance with paragraph (b)(2) of this section.

(4) The alternative CO standard is established based on CO data during the trial burn (for a new facility) and the compliance test (for an interim status facility). The alternative CO standard is the average over all valid runs of the highest hourly average CO level for each run. The CO limit is

implemented on an hourly rolling average basis, and continuously corrected to 7 percent oxygen, dry gas basis.

(d) Special requirements for furnaces. Owners and operators of industrial furnaces (e.g., kilns, cupolas) that feed hazardous waste for a purpose other than solely as an ingredient (see § 266.103(a)(5)(ii)) at any location other than the end where products are normally discharged and where fuels are normally fired must comply with the hydrocarbon limits provided by paragraphs (c) or (f) of this section irrespective of whether stack gas CO concentrations meet the 100 ppmv limit of paragraph (b) of this section.

(e) Controls for dioxins and furans. Owners and operators of boilers and industrial furnaces that are equipped with a dry particulate matter control device that operates within the temperature range of 450-750 °F, and industrial furnaces operating under an alternative hydrocarbon limit established under paragraph (f) of this section must conduct a site-specific risk assessment as follows to demonstrate that emissions of chlorinated dibenzo-p-dioxins and dibenzofurans do not result in an increased lifetime cancer risk to the hypothetical maximum exposed individual (MEI) exceeding 1 in 100,000:

(1) During the trial burn (for new facilities or an interim status facility applying for a permit) or compliance test (for interim status facilities), determine emission rates of the tetra-octa congeners of chlorinated dibenzo-p-dioxins and dibenzofurans (CDDs/CDFs) using Method 0023A, Sampling Method for Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans Emissions from Stationary Sources, EPA Publication SW-846, as incorporated by reference in § 260.11 of this regulation.

(2) Estimate the 2,3,7,8-TCDD toxicity equivalence of the tetra-octa CDDs/CDFs congeners using “Procedures for Estimating the Toxicity Equivalence of Chlorinated Dibenzo-p-Dioxin and Dibenzofuran Congeners” in Appendix IX of this section. Multiply the emission rates of CDD/CDF congeners with a toxicity equivalence greater than zero (see the procedure) by the calculated toxicity equivalence factor to estimate the equivalent emission rate of 2,3,7,8-TCDD;

(3) Conduct dispersion modeling using methods recommended in Appendix W of 40 CFR part 51 (“Guideline on Air Quality Models (Revised)” (1986) and its supplements), the “Hazardous Waste Combustion Air Quality Screening Procedure”, provided in Appendix IX of this Section, or in Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised (incorporated by reference in § 260.11) to predict the maximum annual average off-site ground level concentration of 2,3,7,8-TCDD equivalents determined under paragraph (e)(2) of this section. The maximum annual average concentration must be used when a

person resides on-site; and

(4) The ratio of the predicted maximum annual average ground level concentration of 2,3,7,8-TCDD equivalents to the risk-specific dose for 2,3,7,8-TCDD provided in Appendix V of this part (2.2×10^{-7}) shall not exceed 1.0.

(f) Monitoring CO and HC in the by-pass duct of a cement kiln. Cement kilns may comply with the carbon monoxide and hydrocarbon limits provided by paragraphs (b), (c), and (d) of this section by monitoring in the by-pass duct provided that:

(1) Hazardous waste is fired only into the kiln and not at any location downstream from the kiln exit relative to the direction of gas flow; and

(2) The by-pass duct diverts a minimum of 10% of kiln off-gas into the duct.

(g) Use of emissions test data to demonstrate compliance and establish operating limits. Compliance with the requirements of this section must be demonstrated simultaneously by emissions testing or during separate runs under identical operating conditions. Further, data to demonstrate compliance with the CO and HC limits of this section or to establish alternative CO or HC limits under this section must be obtained during the time that DRE testing, and where applicable, CDD/CDF testing under paragraph (e) of this section and comprehensive organic emissions testing under paragraph (f) is conducted.

(h) Enforcement. For the purposes of permit enforcement, compliance with the operating requirements specified in the permit (under § 266.102) will be regarded as compliance with this section. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the requirements of this section may be “information” justifying modification or revocation and re-issuance of a permit under § 270.41 of this regulation.

§ 266.105 Standards to control particulate matter.

(a) A boiler or industrial furnace burning hazardous waste may not emit particulate matter in excess of 180 milligrams per dry standard cubic meter (0.08 grains per dry standard cubic foot) after correction to a stack gas concentration of 7% oxygen, using procedures prescribed in 40 CFR part 60, Appendix A, methods 1 through 5, and Appendix IX of this part.

(b) An owner or operator meeting the requirements of § 266.109(b) for the low risk waste exemption is exempt from the particulate matter standard.

(c) Oxygen correction. (1) Measured pollutant levels must be corrected for the amount of oxygen in the stack gas according to the formula:

$$P_c = P_m \times 14/(E - Y)$$

Where:

P_c is the corrected concentration of the pollutant in the stack gas, P_m is the measured concentration of the pollutant

in the stack gas, E is the oxygen concentration on a dry basis in the combustion air fed to the device, and Y is the measured oxygen concentration on a dry basis in the stack.

(2) For devices that feed normal combustion air, E will equal 21 percent. For devices that feed oxygen-enriched air for combustion (that is, air with an oxygen concentration exceeding 21 percent), the value of E will be the concentration of oxygen in the enriched air.

(3) Compliance with all emission standards provided by this subpart must be based on correcting to 7 percent oxygen using this procedure.

(d) For the purposes of permit enforcement, compliance with the operating requirements specified in the permit (under § 266.102) will be regarded as compliance with this section. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the requirements of this section may be “information” justifying modification or revocation and re-issuance of a permit under § 270.41 of this regulation.

§ 266.106 Standards to control metals emissions.

(a) General. The owner or operator must comply with the metals standards provided by paragraphs (b), (c), (d), (e), or (f) of this section for each metal listed in paragraph (b) of this section that is present in the hazardous waste at detectable levels by using appropriate analytical procedures.

(b) Tier I feed rate screening limits. Feed rate screening limits for metals are specified in Appendix I of this part as a function of terrain-adjusted effective stack height and terrain and land use in the vicinity of the facility. Criteria for facilities that are not eligible to comply with the screening limits are provided in paragraph (b)(7) of this section.

(1) Noncarcinogenic metals. The feed rates of antimony, barium, lead, mercury, thallium, and silver in all feed streams, including hazardous waste, fuels, and industrial furnace feed stocks shall not exceed the screening limits specified in Appendix I of this section.

(i) The feed rate screening limits for antimony, barium, mercury, thallium, and silver are based on either:

(A) An hourly rolling average as defined in § 266.102(e)(6)(i)(B); or

(B) An instantaneous limit not to be exceeded at any time.

(ii) The feed rate screening limit for lead is based on one of the following:

(A) An hourly rolling average as defined in § 266.102(e)(6)(i)(B);

(B) An averaging period of 2 to 24 hours as defined in § 266.102(e)(6)(ii) with an instantaneous feed rate limit not to exceed 10 times the feed rate that would be allowed on an hourly rolling average basis; or

(C) An instantaneous limit not to be exceeded at any time.

(2) Carcinogenic metals. (i) The feed rates of arsenic, cadmium, beryllium, and chromium in all feed streams, including hazardous waste, fuels, and industrial furnace feed stocks shall not exceed values derived from the screening limits specified in Appendix I of this section. The feed rate of each of these metals is limited to a level such that the sum of the ratios of the actual feed rate to the feed rate screening limit specified in Appendix I shall not exceed 1.0, as provided by the following equation:

$$\sum_{i=1}^n \frac{AFR_{(i)}}{FRSL_{(i)}} \leq 1.0$$

where:

- n* = number of carcinogenic metals
- AFR* = actual feed rate to the device for metal “”
- FRSL* = feed rate screening limit provided by Appendix I of this part for metal “”.

(ii) The feed rate screening limits for the carcinogenic metals are based on either:

(A) An hourly rolling average; or

(B) An averaging period of 2 to 24 hours as defined in § 266.102(e)(6)(ii) with an instantaneous feed rate limit not to exceed 10 times the feed rate that would be allowed on an hourly rolling average basis.

(3) TESH. (i) The terrain-adjusted effective stack height is determined according to the following equation:

$$TESH = Ha + H1 - Tr$$

where:

- Ha* = Actual physical stack height
- H1* = Plume rise as determined from Appendix VI of this section as a function of stack flow rate and stack gas exhaust temperature.
- Tr* = Terrain rise within five kilometers of the stack.

(ii) The stack height (*Ha*) may not exceed good engineering practice as specified in 40 CFR 51.100(ii).

(iii) If the TESH for a particular facility is not listed in the table in the appendices, the nearest lower TESH listed in the table shall be used. If the TESH is four meters or less, a value of four meters shall be used.

(4) Terrain type. The screening limits are a function of whether the facility is located in noncomplex or complex terrain. A device located where any part of the surrounding terrain within 5 kilometers of the stack equals or exceeds the elevation of the physical stack height (*Ha*) is considered to be in complex terrain and the screening limits for complex terrain apply. Terrain measurements are to be made from U.S. Geological Survey 7.5-minute topographic maps of the area surrounding the facility.

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(5) Land use. The screening limits are a function of whether the facility is located in an area where the land use is urban or rural. To determine whether land use in the vicinity of the facility is urban or rural, procedures provided in appendices IX or X of this section shall be used.

(6) Multiple stacks. Owners and operators of facilities with more than one on-site stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls of metals emissions under a RCRA operating permit or interim status controls must comply with the screening limits for all such units assuming all hazardous waste is fed into the device with the worst-case stack based on dispersion characteristics. The worst-case stack is determined from the following equation as applied to each stack:

$$K = HVT$$

Where:

- K = a parameter accounting for relative influence of stack height and plume rise;
- H = physical stack height (meters);
- V = stack gas flow rate (m³/second); and
- T = exhaust temperature (°K).

The stack with the lowest value of *K* is the worst-case stack.

(7) Criteria for facilities not eligible for screening limits. If any criteria below are met, the Tier I and Tier II screening limits do not apply. Owners and operators of such facilities must comply with either the Tier III standards provided by paragraph (d) of this section or with the adjusted Tier I feed rate screening limits provided by paragraph (e) of this section.

- (i) The device is located in a narrow valley less than one kilometer wide;
- (ii) The device has a stack taller than 20 meters and is located such that the terrain rises to the physical height within one kilometer of the facility;
- (iii) The device has a stack taller than 20 meters and is located within five kilometers of a shoreline of a large body of water such as an ocean or large lake;
- (iv) The physical stack height of any stack is less than 2.5 times the height of any building within five building heights or five projected building widths of the stack and the distance from the stack to the closest boundary is within five building heights or five projected building widths of the associated building; or
- (v) The Director determines that standards based on site-specific dispersion modeling are required.

(8) Implementation. The feed rate of metals in each feedstream must be monitored to ensure that the feed rate screening limits are not exceeded.

(c) Tier II emission rate screening limits. Emission rate

screening limits are specified in Appendix I as a function of terrain-adjusted effective stack height and terrain and land use in the vicinity of the facility. Criteria for facilities that are not eligible to comply with the screening limits are provided in paragraph (b)(7) of this section.

(1) Noncarcinogenic metals. The emission rates of antimony, barium, lead, mercury, thallium, and silver shall not exceed the screening limits specified in Appendix I of this section.

(2) Carcinogenic metals. The emission rates of arsenic, cadmium, beryllium, and chromium shall not exceed values derived from the screening limits specified in Appendix I of this section. The emission rate of each of these metals is limited to a level such that the sum of the ratios of the actual emission rate to the emission rate screening limit specified in Appendix I shall not exceed 1.0, as provided by the following equation:

$$\sum_{i=1}^n \frac{AER_{(i)}}{ERSL_{(i)}} \leq 1.0$$

where:

- n = number of carcinogenic metals
- AER = actual emission rate for metal "r"
- ERSL = emission rate screening limit provided by Appendix I of this section for metal "r".

(3) Implementation. The emission rate limits must be implemented by limiting feed rates of the individual metals to levels during the trial burn (for new facilities or an interim status facility applying for a permit) or the compliance test (for interim status facilities). The feed rate averaging periods are the same as provided by paragraphs (b)(1)(i) and (ii) and (b)(2)(ii) of this section. The feed rate of metals in each feedstream must be monitored to ensure that the feed rate limits for the feedstreams specified under §§ 266.102 or 266.103 are not exceeded.

(4) Definitions and limitations. The definitions and limitations provided by paragraph (b) of this section for the following terms also apply to the Tier II emission rate screening limits provided by paragraph (c) of this section: terrain-adjusted effective stack height, good engineering practice stack height, terrain type, land use, and criteria for facilities not eligible to use the screening limits.

(5) Multiple stacks. (i) Owners and operators of facilities with more than one onsite stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on metals emissions under a RCRA operating permit or interim status controls must comply with the emissions screening limits for any such stacks assuming all hazardous waste is fed into the device with the worst-case stack based on dispersion characteristics.

(ii) The worst-case stack is determined by procedures provided in paragraph (b)(6) of

this section.

(iii) For each metal, the total emissions of the metal from those stacks shall not exceed the screening limit for the worst-case stack.

(d) Tier III and Adjusted Tier I site-specific risk assessment. The requirements of this paragraph apply to facilities complying with either the Tier III or Adjusted Tier I controls, except where specified otherwise.

(1) General. Conformance with the Tier III metals controls must be demonstrated by emissions testing to determine the emission rate for each metal. In addition, conformance with either the Tier III or Adjusted Tier I metals controls must be demonstrated by air dispersion modeling to predict the maximum annual average off-site ground level concentration for each metal, and a demonstration that acceptable ambient levels are not exceeded.

(2) Acceptable ambient levels. Appendices IV and V of this part list the acceptable ambient levels for purposes of this rule. Reference air concentrations (RACs) are listed for the noncarcinogenic metals and 10⁻⁵ risk-specific doses (RSDs) are listed for the carcinogenic metals. The RSD for a metal is the acceptable ambient level for that metal provided that only one of the four carcinogenic metals is emitted. If more than one carcinogenic metal is emitted, the acceptable ambient level for the carcinogenic metals is a fraction of the RSD as described in paragraph (d)(3) of this section.

(3) Carcinogenic metals. For the carcinogenic metals, arsenic, cadmium, beryllium, and chromium, the sum of the ratios of the predicted maximum annual average off-site ground level concentrations (except that on-site concentrations must be considered if a person resides on site) to the risk-specific dose (RSD) for all carcinogenic metals emitted shall not exceed 1.0 as determined by the following equation:

$$\sum_{i=1}^n \frac{\text{Predicted Ambient Concentration}_{(i)}}{\text{Risk-Specific Dose}_{(i)}} \leq 1.0$$

where: n = number of carcinogenic metals

(4) Noncarcinogenic metals. For the noncarcinogenic metals, the predicted maximum annual average off-site ground level concentration for each metal shall not exceed the reference air concentration (RAC).

(5) Multiple stacks. Owners and operators of facilities with more than one on-site stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on metals emissions under a RCRA operating permit or interim status controls must conduct emissions testing (except that facilities complying with Adjusted Tier I controls need not conduct emissions testing) and dispersion modeling to demonstrate that the

aggregate emissions from all such on-site stacks do not result in an exceedance of the acceptable ambient levels.

6) Implementation. Under Tier III, the metals controls must be implemented by limiting feed rates of the individual metals to levels during the trial burn (for new facilities or an interim status facility applying for a permit) or the compliance test (for interim status facilities). The feed rate averaging periods are the same as provided by paragraphs (b)(1) (i) and (ii) and (b)(2)(ii) of this section. The feed rate of metals in each feedstream must be monitored to ensure that the feed rate limits for the feedstreams specified under §§ 266.102 or 266.103 are not exceeded.

(e) Adjusted Tier I feed rate screening limits. The owner or operator may adjust the feed rate screening limits provided by Appendix I of this section to account for site-specific dispersion modeling. Under this approach, the adjusted feed rate screening limit for a metal is determined by back-calculating from the acceptable ambient level provided by appendices IV and V of this section using dispersion modeling to determine the maximum allowable emission rate. This emission rate becomes the adjusted Tier I feed rate screening limit. The feed rate screening limits for carcinogenic metals are implemented as prescribed in paragraph (b)(2) of this section.

(f) Alternative implementation approaches. (1) The Director may approve on a case-by-case basis approaches to implement the Tier II or Tier III metals emission limits provided by paragraphs (c) or (d) of this section alternative to monitoring the feed rate of metals in each feedstream.

(2) The emission limits provided by paragraph (d) of this section must be determined as follows:

(i) For each noncarcinogenic metal, by back-calculating from the RAC provided in Appendix IV of this section to determine the allowable emission rate for each metal using the dilution factor for the maximum annual average ground level concentration predicted by dispersion modeling in conformance with paragraph (h) of this section; and

(ii) For each carcinogenic metal by:

(A) Back-calculating from the RSD provided in Appendix V of this part to determine the allowable emission rate for each metal if that metal were the only carcinogenic metal emitted using the dilution factor for the maximum annual average ground level concentration predicted by dispersion modeling in conformance with paragraph (h) of this section; and

(B) If more than one carcinogenic metal is emitted, selecting an emission limit for each carcinogenic metal not to exceed the emission rate determined by paragraph

(f)(2)(ii)(A) of this section such that the sum for all carcinogenic metals of the ratios of the selected emission limit to the emission rate determined by that paragraph does not exceed 1.0.

(g) Emission testing — (1) General. Emission testing for metals shall be conducted using Method 0060, Determinations of Metals in Stack Emissions, EPA Publication SW-846, as incorporated by reference in § 260.11 of this regulation.

(2) Hexavalent chromium. Emissions of chromium are assumed to be hexavalent chromium unless the owner or operator conducts emissions testing to determine hexavalent chromium emissions using procedures prescribed in Method 0061, Determination of Hexavalent Chromium Emissions from Stationary Sources, EPA Publication SW-846, as incorporated by reference in § 260.11 of this regulation.

(h) Dispersion Modeling. Dispersion modeling required under this section shall be conducted according to methods recommended in Appendix W of 40 CFR Part 51 (“Guideline on Air Quality Models (Revised)” (1986) and its supplements), the “Hazardous Waste Combustion Air Quality Screening Procedure”, provided in Appendix IX of this Section, or in Screening Procedures for Estimating the Air Quality Impact of Stationary Sources, Revised (incorporated by reference in § 260.11) to predict the maximum annual average off-site ground level concentration. However, on-site concentrations must be considered when a person resides on-site.

(i) Enforcement. For the purposes of permit enforcement, compliance with the operating requirements specified in the permit (under § 266.102) will be regarded as compliance with this section. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the requirements of this section may be “information” justifying modification or revocation and re-issuance of a permit under § 270.41 of this regulation.

§ 266.107 Standards to control hydrogen chloride (HCl) and chlorine gas (Cl₂) emissions.

(a) General. The owner or operator must comply with the hydrogen chloride (HCl) and chlorine (Cl₂) controls provided by paragraph (b), (c), or (e) of this section.

(b) Screening limits-(1) Tier I feed rate screening limits. Feed rate screening limits are specified for total chlorine in Appendix II of this section as a function of terrain-adjusted effective stack height and terrain and land use in the vicinity of the facility. The feed rate of total chlorine and chloride, both organic and inorganic, in all feed streams, including hazardous waste, fuels, and industrial furnace feed stocks shall not exceed the levels specified.

(2) Tier II emission rate screening limits. Emission rate screening limits for HCl and Cl₂ are specified in Appendix III of this section as a function of terrain-adjusted effective stack height and terrain and land

use in the vicinity of the facility. The stack emission rates of HCl and Cl₂ shall not exceed the levels specified.

(3) Definitions and limitations. The definitions and limitations provided by § 266.106(b) for the following terms also apply to the screening limits provided by this paragraph: terrain-adjusted effective stack height, good engineering practice stack height, terrain type, land use, and criteria for facilities not eligible to use the screening limits.

(4) Multiple stacks. Owners and operators of facilities with more than one on-site stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on HCl or Cl₂ emissions under a RCRA operating permit or interim status controls must comply with the Tier I and Tier II screening limits for those stacks assuming all hazardous waste is fed into the device with the worst-case stack based on dispersion characteristics.

(i) The worst-case stack is determined by procedures provided in § 266.106(b)(6).

(ii) Under Tier I, the total feed rate of chlorine and chloride to all subject devices shall not exceed the screening limit for the worst-case stack.

(iii) Under Tier II, the total emissions of HCl and Cl₂ from all subject stacks shall not exceed the screening limit for the worst-case stack.

(c) Tier III site-specific risk assessments-(1) General. Conformance with the Tier III controls must be demonstrated by emissions testing to determine the emission rate for HCl and Cl₂, air dispersion modeling to predict the maximum annual average off-site ground level concentration for each compound, and a demonstration that acceptable ambient levels are not exceeded.

(2) Acceptable ambient levels. Appendix IV of this section lists the reference air concentrations (RACs) for HCl (7 micrograms per cubic meter) and Cl₂ (0.4 micrograms per cubic meter).

(3) Multiple stacks. Owners and operators of facilities with more than one on-site stack from a boiler, industrial furnace, incinerator, or other thermal treatment unit subject to controls on HCl or Cl₂ emissions under a RCRA operating permit or interim status controls must conduct emissions testing and dispersion modeling to demonstrate that the aggregate emissions from all such on-site stacks do not result in an exceedance of the acceptable ambient levels for HCl and Cl₂.

(d) Averaging periods. The HCl and Cl₂ controls are implemented by limiting the feed rate of total chlorine and chloride in all feedstreams, including hazardous waste, fuels, and industrial furnace feed stocks. Under Tier I, the feed rate of total chloride and chlorine is limited to the Tier I Screening Limits. Under Tier II and Tier III, the feed rate of total chloride and chlorine is limited to the feed rates during the trial burn (for new facilities or an interim status facility

applying for a permit) or the compliance test (for interim status facilities). The feed rate limits are based on either:

- (1) An hourly rolling average as defined in § 266.102(e)(6); or
- (2) An instantaneous basis not to be exceeded at any time.

(e) Adjusted Tier I feed rate screening limits. The owner or operator may adjust the feed rate screening limit provided by Appendix II of this Section to account for site-specific dispersion modeling. Under this approach, the adjusted feed rate screening limit is determined by back-calculating from the acceptable ambient level for Cl₂ provided by Appendix IV of this section using dispersion modeling to determine the maximum allowable emission rate. This emission rate becomes the adjusted Tier I feed rate screening limit.

(f) Emissions testing. Emissions testing for HCl and Cl₂ shall be conducted using the procedures described in Methods 0050 or 0051, EPA Publication SW-846, as incorporated by reference in § 260.11 of this regulation.

(g) Dispersion modeling. Dispersion modeling shall be conducted according to the provisions of § 266.106(h).

(h) Enforcement. For the purposes of permit enforcement, compliance with the operating requirements specified in the permit (under § 266.102) will be regarded as compliance with this section. However, evidence that compliance with those permit conditions is insufficient to ensure compliance with the requirements of this section may be “information” justifying modification or revocation and re-issuance of a permit under § 270.41 of this regulation.

§ 266.108 Small quantity on-site burner exemption.

(a) Exempt quantities. Owners and operators of facilities that burn hazardous waste in an on-site boiler or industrial furnace are exempt from the requirements of this subsection provided that:

- (1) The quantity of hazardous waste burned in a device for a calendar month does not exceed the limits provided in the following table based on the terrain-adjusted effective stack height as defined in § 266.106(b)(3):

Exempt Quantities for Small Quantity Burner Exemption

- (A) Terrain-adjusted effective stack height of device (meters)
- (B) Allowable hazardous waste burning rate (gallons/month)
- (C) Terrain-adjusted effective stack height of device (meters)
- (D) Allowable hazardous waste burning rate (Gallons/month)

(A)	(B)	(C)	(D)
0 to 3.9	0	40.0 to 44.9	210
4.0 to 5.9	13	45.0 to 49.9	260
6.0 to 7.9	18	50.0 to 54.9	330
8.0 to 9.9	27	55.0 to 59.9	400
10.0 to 11.9	40	60.0 to 64.9	490
12.0 to 13.9	48	65.0 to 69.9	610
14.0 to 15.9	59	70.0 to 74.9	680
16.0 to 17.9	69	75.0 to 79.9	760

18.0 to 19.9	76	80.0 to 84.9	850
20.0 to 21.9	84	85.0 to 89.9	960
22.0 to 23.9	93	90.0 to 94.9	1,100
24.0 to 25.9	100	95.0 to 99.9	1,200
26.0 to 27.9	110	100.0 to 104.9	1,300
28.0 to 29.9	130	105.0 to 109.9	1,500
30.0 to 34.9	140	110.0 to 114.9	1,700
35.0 to 39.9	170	115.0 or greater	1,900

(2) The maximum hazardous waste firing rate does not exceed at any time 1 percent of the total fuel requirements for the device (hazardous waste plus other fuel) on a total heat input or mass input basis, whichever results in the lower mass feed rate of hazardous waste.

(3) The hazardous waste has a minimum heating value of 5,000 Btu/lb, as generated; and

(4) The hazardous waste fuel does not contain (and is not derived from) EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, or F027.

(b) Mixing with nonhazardous fuels. If hazardous waste fuel is mixed with a nonhazardous fuel, the quantity of hazardous waste before such mixing is used to comply with paragraph (a).

(c) Multiple stacks. If an owner or operator burns hazardous waste in more than one on-site boiler or industrial furnace exempt under this section, the quantity limits provided by paragraph (a)(1) of this section are implemented according to the following equation:

$$\sum_{i=1}^n \frac{\text{Actual Quantity Burned}_{(i)}}{\text{Allowable Quantity Burned}_{(i)}} \leq 1.0$$

where:

n means the number of stacks;

Actual Quantity Burned means the waste quantity burned per month in device “*i*”;

Allowable Quantity Burned means the maximum allowable exempt quantity for stack “*i*” from the table in (a)(1) above.

Note: Hazardous wastes that are subject to the special requirements for small quantity generators under § 261.5 of this regulation may be burned in an off-site device under the exemption provided by § 266.108, but must be included in the quantity determination for the exemption.

(d) Notification requirements. The owner or operator of facilities qualifying for the small quantity burner exemption under this section must provide a one-time signed, written notice to the Department indicating the following:

(1) The combustion unit is operating as a small quantity burner of hazardous waste;

(2) The owner and operator are in compliance with the requirements of this section; and

(3) The maximum quantity of hazardous waste that the facility may burn per month as provided by § 266.108(a)(1).

(e) Recordkeeping requirements. The owner or operator must maintain at the facility for at least three years sufficient records documenting compliance with the hazardous waste quantity, firing rate, and heating value limits of this section. At a minimum, these records must indicate the quantity of hazardous waste and other fuel burned in each unit per

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calendar month, and the heating value of the hazardous waste.

§ 266.109 Low risk waste exemption.

(a) Waiver of DRE standard. The DRE standard of § 266.104(a) does not apply if the boiler or industrial furnace is operated in conformance with (a)(1) of this section and the owner or operator demonstrates by procedures prescribed in (a)(2) of this section that the burning will not result in unacceptable adverse health effects.

(1) The device shall be operated as follows:

(i) A minimum of 50 percent of fuel fired to the device shall be fossil fuel, fuels derived from fossil fuel, tall oil, or, if approved by the Director on a case-by-case basis, other nonhazardous fuel with combustion characteristics comparable to fossil fuel. Such fuels are termed “primary fuel” for purposes of this section. (Tall oil is a fuel derived from vegetable and rosin fatty acids.) The 50 percent primary fuel firing rate shall be determined on a total heat or mass input basis, whichever results in the greater mass feed rate of primary fuel fired;

(ii) Primary fuels and hazardous waste fuels shall have a minimum as-fired heating value of 8,000 Btu/lb;

(iii) The hazardous waste is fired directly into the primary fuel flame zone of the combustion chamber; and

(iv) The device operates in conformance with the carbon monoxide controls provided by § 266.104(b)(1). Devices subject to the exemption provided by this section are not eligible for the alternative carbon monoxide controls provided by § 266.104(c).

(2) Procedures to demonstrate that the hazardous waste burning will not pose unacceptable adverse public health effects are as follows:

(i) Identify and quantify those nonmetal compounds listed in Appendix VIII, Section 261 of this regulation that could reasonably be expected to be present in the hazardous waste. The constituents excluded from analysis must be identified and the basis for their exclusion explained;

(ii) Calculate reasonable, worst case emission rates for each constituent identified in paragraph (a)(2)(i) of this section by assuming the device achieves 99.9 percent destruction and removal efficiency. That is, assume that 0.1 percent of the mass weight of each constituent fed to the device is emitted.

(iii) For each constituent identified in paragraph (a)(2)(i) of this section, use

emissions dispersion modeling to predict the maximum annual average ground level concentration of the constituent.

(A) Dispersion modeling shall be conducted using methods specified in § 266.106(h).

(B) Owners and operators of facilities with more than one on-site stack from a boiler or industrial furnace that is exempt under this section must conduct dispersion modeling of emissions from all stacks exempt under this section to predict ambient levels prescribed by this paragraph.

(iv) Ground level concentrations of constituents predicted under paragraph (a)(2)(iii) of this section must not exceed the following levels:

(A) For the noncarcinogenic compounds listed in Appendix IV of this Section, the levels established in Appendix IV;

(B) For the carcinogenic compounds listed in Appendix V of this part, the sum for all constituents of the ratios of the actual ground level concentration to the level established in Appendix V cannot exceed 1.0; and

(C) For constituents not listed in Appendix IV or V, 0.1 micrograms per cubic meter.

(b) Waiver of particulate matter standard. The particulate matter standard of § 266.105 does not apply if:

(1) The DRE standard is waived under paragraph (a) of this section; and

(2) The owner or operator complies with the Tier I or adjusted Tier I metals feed rate screening limits provided by § 266.106 (b) or (e).

§ 266.110 Waiver of DRE trial burn for boilers.

Boilers that operate under the special requirements of this section, and that do not burn hazardous waste containing (or derived from) EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, or F027, are considered to be in conformance with the DRE standard of § 266.104(a), and a trial burn to demonstrate DRE is waived. When burning hazardous waste:

(a) A minimum of 50 percent of fuel fired to the device shall be fossil fuel, fuels derived from fossil fuel, tall oil, or, if approved by the Director on a case-by-case basis, other nonhazardous fuel with combustion characteristics comparable to fossil fuel. Such fuels are termed “primary fuel” for purposes of this section. (Tall oil is a fuel derived from vegetable and rosin fatty acids.) The 50 percent primary fuel firing rate shall be determined on a total heat or mass input basis, whichever results in the greater mass feed rate of primary fuel fired;

(b) Boiler load shall not be less than 40 percent. Boiler load is the ratio at any time of the total heat input to the maximum design heat input;

(c) Primary fuels and hazardous waste fuels shall have a minimum as-fired heating value of 8,000 Btu/lb, and each material fired in a burner where hazardous waste is fired must have a heating value of at least 8,000 Btu/lb, as-fired;

(d) The device shall operate in conformance with the carbon monoxide standard provided by § 266.104(b)(1). Boilers subject to the waiver of the DRE trial burn provided by this section are not eligible for the alternative carbon monoxide standard provided by § 266.104(c);

(e) The boiler must be a watertube type boiler that does not feed fuel using a stoker or stoker type mechanism; and

(f) The hazardous waste shall be fired directly into the primary fuel flame zone of the combustion chamber with an air or steam atomization firing system, mechanical atomization system, or a rotary cup atomization system under the following conditions:

(1) Viscosity. The viscosity of the hazardous waste fuel as-fired shall not exceed 300 SSU;

(2) Particle size. When a high pressure air or steam atomizer, low pressure atomizer, or mechanical atomizer is used, 70% of the hazardous waste fuel must pass through a 200 mesh (74 micron) screen, and when a rotary cup atomizer is used, 70% of the hazardous waste must pass through a 100 mesh (150 micron) screen;

(3) Mechanical atomization systems. Fuel pressure within a mechanical atomization system and fuel flow rate shall be maintained within the design range taking into account the viscosity and volatility of the fuel;

(4) Rotary cup atomization systems. Fuel flow rate through a rotary cup atomization system must be maintained within the design range taking into account the viscosity and volatility of the fuel.

§ 266.111 Standards for direct transfer.

(a) Applicability. The regulations in this section apply to owners and operators of boilers and industrial furnaces subject to §§ 266.102 or 266.103 if hazardous waste is directly transferred from a transport vehicle to a boiler or industrial furnace without the use of a storage unit.

(b) Definitions. (1) When used in this section, the following terms have the meanings given below:

“Direct transfer equipment” means any device (including but not limited to, such devices as piping, fittings, flanges, valves, and pumps) that is used to distribute, meter, or control the flow of hazardous waste between a container (i.e., transport vehicle) and a boiler or industrial furnace.

“Container” means any portable device in which hazardous waste is transported, stored, treated, or otherwise handled, and includes transport vehicles that are containers themselves (e.g., tank trucks, tanker-trailers, and rail tank

cars), and containers placed on or in a transport vehicle.

(2) This section references several requirements provided in subparts I and J of parts 264 and 265. For purposes of this section, the term “tank systems” in those referenced requirements means direct transfer equipment as defined in paragraph (b)(1) of this section.

(c) General operating requirements.

(1) No direct transfer of a pumpable hazardous waste shall be conducted from an open-top container to a boiler or industrial furnace.

(2) Direct transfer equipment used for pumpable hazardous waste shall always be closed, except when necessary to add or remove the waste, and shall not be opened, handled, or stored in a manner that may cause any rupture or leak.

(3) The direct transfer of hazardous waste to a boiler or industrial furnace shall be conducted so that it does not:

(i) Generate extreme heat or pressure, fire, explosion, or violent reaction;

(ii) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health;

(iii) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;

(iv) Damage the structural integrity of the container or direct transfer equipment containing the waste;

(v) Adversely affect the capability of the boiler or industrial furnace to meet the standards provided by §§ 266.104 through 266.107; or

(vi) Threaten human health or the environment.

(4) Hazardous waste shall not be placed in direct transfer equipment, if it could cause the equipment or its secondary containment system to rupture, leak, corrode, or otherwise fail.

(5) The owner or operator of the facility shall use appropriate controls and practices to prevent spills and overflows from the direct transfer equipment or its secondary containment systems. These include at a minimum:

(i) Spill prevention controls (e.g., check valves, dry discount couplings); and

(ii) Automatic waste feed cutoff to use if a leak or spill occurs from the direct transfer equipment.

(d) Areas where direct transfer vehicles (containers) are located. Applying the definition of container under this section, owners and operators must comply with the following requirements:

(1) The containment requirements of § 264.175 of this regulation;

(2) The use and management requirements of

subsection I, Section 265 of this regulation, except for §§ 265.170 and 265.174, and except that in lieu of the special requirements of § 265.176 for ignitable or reactive waste, the owner or operator may comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjacent property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's (NFPA) "Flammable and Combustible Liquids Code," (1977 or 1981), (incorporated by reference, see § 260.11). The owner or operator must obtain and keep on file at the facility a written certification by the local Fire Marshall that the installation meets the subject NFPA codes; and

(3) The closure requirements of § 264.178 of this regulation.

(e) Direct transfer equipment. Direct transfer equipment must meet the following requirements:

(1) Secondary containment. Owners and operators shall comply with the secondary containment requirements of § 265.193 of this regulation, except for paragraphs 265.193 (a), (d), (e), and (i) as follows:

(i) For all new direct transfer equipment, prior to their being put into service; and

(ii) For existing direct transfer equipment within 2 years after August 21, 1991.

(2) Requirements prior to meeting secondary containment requirements. (i) For existing direct transfer equipment that does not have secondary containment, the owner or operator shall determine whether the equipment is leaking or is unfit for use. The owner or operator shall obtain and keep on file at the facility a written assessment reviewed and certified by a qualified, registered professional engineer in accordance with § 270.11(d) of this regulation that attests to the equipment's integrity by August 21, 1992.

(ii) This assessment shall determine whether the direct transfer equipment is adequately designed and has sufficient structural strength and compatibility with the waste(s) to be transferred to ensure that it will not collapse, rupture, or fail. At a minimum, this assessment shall consider the following:

(A) Design standard(s), if available, according to which the direct transfer equipment was constructed;

(B) Hazardous characteristics of the waste(s) that have been or will be handled;

(C) Existing corrosion protection measures;

(D) Documented age of the equipment, if available, (otherwise, an estimate of the age); and

(E) Results of a leak test or other integrity examination such that the effects of temperature variations, vapor pockets, cracks, leaks, corrosion, and erosion are accounted for.

(iii) If, as a result of the assessment specified above, the direct transfer equipment is found to be leaking or unfit for use, the owner or operator shall comply with the requirements of §§ 265.196 (a) and (b) of this regulation.

(3) Inspections and recordkeeping. (i) The owner or operator must inspect at least once each operating hour when hazardous waste is being transferred from the transport vehicle (container) to the boiler or industrial furnace:

(A) Overflow/spill control equipment (e.g., waste-feed cutoff systems, bypass systems, and drainage systems) to ensure that it is in good working order;

(B) The above ground portions of the direct transfer equipment to detect corrosion, erosion, or releases of waste (e.g., wet spots, dead vegetation); and

(C) Data gathered from monitoring equipment and leak-detection equipment, (e.g., pressure and temperature gauges) to ensure that the direct transfer equipment is being operated according to its design.

(ii) The owner or operator must inspect cathodic protection systems, if used, to ensure that they are functioning properly according to the schedule provided by § 265.195(b) of this regulation:

(iii) Records of inspections made under this paragraph shall be maintained in the operating record at the facility, and available for inspection for at least 3 years from the date of the inspection.

(4) Design and installation of new ancillary equipment. Owners and operators must comply with the requirements of § 265.192 of this regulation.

(5) Response to leaks or spills. Owners and operators must comply with the requirements of § 265.196 of this regulation.

(6) Closure. Owners and operators must comply with the requirements of § 265.197 of this regulation, except for § 265.197 (c)(2) through (c)(4).

§ 266.112 Regulation of residues.

A residue derived from the burning or processing of hazardous waste in a boiler or industrial furnace is not excluded from the definition of a hazardous waste under § 261.4(b) (4), (7), or (8) unless the device and the owner or operator meet the following requirements:

(a) The device meets the following criteria:

(1) Boilers. Boilers must burn at least 50% coal on a total heat input or mass input basis, whichever results in the greater mass feed rate of coal;

(2) Ore or mineral furnaces. Industrial furnaces subject to § 261.4(b)(7) must process at least 50% by weight normal, nonhazardous raw materials;

(3) Cement kilns. Cement kilns must process at least 50% by weight normal cement-production raw materials;

(b) The owner or operator demonstrates that the hazardous waste does not significantly affect the residue by demonstrating conformance with either of the following criteria:

(1) Comparison of waste-derived residue with normal residue. The waste-derived residue must not contain Appendix VIII, Section 261 constituents (toxic constituents) that could reasonably be attributable to the hazardous waste at concentrations significantly higher than in residue generated without burning or processing of hazardous waste, using the following procedure. Toxic compounds that could reasonably be attributable to burning or processing the hazardous waste (constituents of concern) include toxic constituents in the hazardous waste, and the organic compounds listed in Appendix VIII of this section that may be generated as products of incomplete combustion. For polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans, analyses must be performed to determine specific congeners and homologues, and the results converted to 2,3,7,8-TCDD equivalent values using the procedure specified in section 4.0 of appendix IX of this section.

(i) Normal residue. Concentrations of toxic constituents of concern in normal residue shall be determined based on analyses of a minimum of 10 samples representing a minimum of 10 days of operation. Composite samples may be used to develop a sample for analysis provided that the compositing period does not exceed 24 hours. The upper tolerance limit (at 95% confidence with a 95% proportion of the sample distribution) of the concentration in the normal residue shall be considered the statistically-derived concentration in the normal residue. If changes in raw materials or fuels reduce the statistically-derived concentrations of the toxic constituents of concern in the normal residue, the statistically-derived concentrations must be revised or statistically-derived concentrations of toxic constituents in normal residue must be established for a new mode of operation with the new raw material or fuel. To determine the upper tolerance limit in the normal residue, the owner or operator shall use statistical procedures prescribed in “Statistical

Methodology for Bevill Residue Determinations” in Appendix IX of this section.

(ii) Waste-derived residue. Waste-derived residue shall be sampled and analyzed as often as necessary to determine whether the residue generated during each 24-hour period has concentrations of toxic constituents that are higher than the concentrations established for the normal residue under paragraph (b)(1)(i) of this section. If so, hazardous waste burning has significantly affected the residue and the residue shall not be excluded from the definition of a hazardous waste. Concentrations of toxic constituents of concern in the waste-derived residue shall be determined based on analysis of one or more samples obtained over a 24-hour period. Multiple samples may be analyzed, and multiple samples may be taken to form a composite sample for analysis provided that the sampling period does not exceed 24 hours. If more than one sample is analyzed to characterize waste-derived residues generated over a 24-hour period, the concentration of each toxic constituent shall be the arithmetic mean of the concentrations in the samples. No results may be disregarded; or

(2) Comparison of waste-derived residue concentrations with health-based limits-

(i) *Nonmetal constituents*. The concentration of each nonmetal toxic constituent of concern (specified in paragraph (b)(1) of this section) in the waste-derived residue must not exceed the health-based level specified in appendix VII of this Section, or the level of detection whichever is higher. If a health-based limit for a constituent of concern is not listed in appendix VII of this part, then a limit of 0.002 micrograms per kilogram or the level of detection (using analytical procedures contained in SW-846, or other appropriate methods), whichever is higher, must be used. The levels specified in appendix VII of this section (and the default level of 0.002 micrograms per kilogram or the level of detection for constituents as identified in Note 1 of appendix VII of this paragraph) are administratively stayed under the condition, for those constituents specified in paragraph b)(1) of this section, that the owner or operator complies with alternative levels defined as the land disposal restriction limits specified in § 268.43 of this regulation for F039 nonwastewaters. In complying with those alternative levels, if an owner or operator is unable to detect a constituent despite documenting use of best

good-faith efforts as defined by applicable EPA or Department guidance or standards, the owner or operator is deemed to be in compliance for that constituent. Until new guidance or standards are developed, the owner or operator may demonstrate such good faith efforts by achieving a detection limit for the constituent that does not exceed an order of magnitude above the level provided by § 268.43 of this regulation for F039 nonwastewaters. In complying with the § 268.43 of this regulation F039 nonwastewater levels for polychlorinated dibenzo-p-dioxins and polychlorinated dibenzo-furans, analyses must be performed for total hexachlorodibenzo-p-dioxins, total hexachlorodibenzofurans, total pentachlorodibenzo-p-dioxins, total pentachlorodibenzofurans, total tetrachlorodibenzo-p-dioxins, and total tetrachlorodibenzofurans.

Note to this paragraph (b)(2)(i): The administrative stay, under the condition that the owner or operator complies with alternative levels defined as the land disposal restriction limits specified in § 268.43 of this Regulation for F039 nonwastewaters, remains in effect until further administrative action is taken and notice is published in the Federal Register and the Code of Federal Regulations.

(i) Metal constituents. The concentration of metals in an extract obtained using the Toxicity Characteristic Leaching Procedure of § 261.24 of this regulation must not exceed the levels specified in Appendix VII of this section and

(iii) Sampling and analysis. Waste-derived residue shall be sampled and analyzed as often as necessary to determine whether the residue generated during each 24-hour period has concentrations of toxic constituents that are higher than the health-based levels. Concentrations of toxic constituents of concern in the waste-derived residue shall be determined based on analysis of one or more samples obtained over a 24-hour period. Multiple samples may be analyzed, and multiple samples may be taken to form a composite sample for analysis provided that the sampling period does not exceed 24 hours. If more than one sample is analyzed to characterize waste-derived residues generated over a 24-hour period, the concentration of each toxic constituent shall be the arithmetic mean of the concentrations in the samples. No results may be disregarded; and

(c) Records sufficient to document compliance with the provisions of this section shall be retained until closure of the boiler or industrial furnace unit. At a minimum, the following shall be recorded.

(1) Levels of constituents in Appendix VIII, Section 261, that are present in waste-derived

residues;

(2) If the waste-derived residue is compared with normal residue under paragraph (b)(1) of this section:

(i) The levels of constituents in Appendix VIII, Section 261, that are present in normal residues; and

(ii) Data and information, including analyses of samples as necessary, obtained to determine if changes in raw materials or fuels would reduce the concentration of toxic constituents of concern in the normal residue.

Subsections I-L (Reserved)

Subsection M — Military Munitions

§ 266.200 Applicability.

(a) The regulations in this subsection identify when military munitions become a solid waste, and, if these wastes are also hazardous under this subsection or Section 261, the management standards that apply to these wastes.

(b) Unless otherwise specified in this subsection, all applicable requirements in Sections 260 through 270 apply to waste military munitions.

§ 266.201 Definitions.

In addition to the definitions in § 260.10, the following definitions apply to this subsection:

“Active range” means a military range that is currently in service and is being regularly used for range activities.

“Chemical agents and munitions” are defined as in 50 U.S.C. section 1521(j)(1).

“Director” is as defined in § 270.2.

“Explosives or munitions emergency response specialist” is as defined in § 260.10.

“Explosives or munitions emergency” is as defined in § 260.10.

“Explosives or munitions emergency response” is as defined in § 260.10.

“Inactive range” means a military range that is not currently being used, but that is still under military control and considered by the military to be a potential range area, and that has not been put to a new use that is incompatible with range activities.

“Military” means the Department of Defense (DOD), the Armed Services, Coast Guard, National Guard, Department of Energy (DOE), or other parties under contract or acting as an agent for the foregoing, who handle military munitions.

“Military munitions” is as defined in § 260.10.

“Military range” means designated land and water areas

set aside, managed, and used to conduct research on, develop, test, and evaluate military munitions and explosives, other ordnance, or weapon systems, or to train military personnel in their use and handling. Ranges include firing lines and positions, maneuver areas, firing lanes, test pads, detonation pads, impact areas, and buffer zones with restricted access and exclusionary areas.

“Unexploded ordnance (UXO)” means military munitions that have been primed, fused, armed, or otherwise prepared for action, and have been fired, dropped, launched, projected, or placed in such a manner as to constitute a hazard to operations, installation, personnel, or material and remain unexploded either by malfunction, design, or any other cause.

§ 266.202 Definition of solid waste.

(a) A military munition is not a solid waste when:

(1) Used for its intended purpose, including:

(i) Use in training military personnel or explosives and munitions emergency response specialists (including training in proper destruction of unused propellant or other munitions); or

(ii) Use in research, development, testing, and evaluation of military munitions, weapons, or weapon systems; or

(iii) Recovery, collection, and on-range destruction of unexploded ordnance and munitions fragments during range clearance activities at active or inactive ranges. However, “use for intended purpose” does not include the on-range disposal or burial of unexploded ordnance and contaminants when the burial is not a result of product use.

(2) An unused munition, or component thereof, is being repaired, reused, recycled, reclaimed, disassembled, reconfigured, or otherwise subjected to materials recovery activities, unless such activities involve use constituting disposal as defined in § 261.2(c)(1), or burning for energy recovery as defined in § 261.2(c)(2).

(b) An unused military munition is a solid waste when any of the following occurs:

(1) The munition is abandoned by being disposed of, burned, detonated (except during intended use as specified in paragraph (a) of this section), incinerated, or treated prior to disposal; or

(2) The munition is removed from storage in a military magazine or other storage area for the purpose of being disposed of, burned, or incinerated, or treated prior to disposal, or

(3) The munition is deteriorated or damaged (e.g., the integrity of the munition is compromised by cracks, leaks, or other damage) to the point that it cannot be put into serviceable condition, and

cannot reasonably be recycled or used for other purposes; or

(4) The munition has been declared a solid waste by an authorized military official.

(c) A used or fired military munition is a solid waste:

(1) When transported off range or from the site of use, where the site of use is not a range, for the purposes of storage, reclamation, treatment, disposal, or treatment prior to disposal; or

(2) If recovered, collected, and then disposed of by burial, or landfilling either on or off a range.

(d) For purposes of RCRA section 1004(27), a used or fired military munition is a solid waste, and, therefore, is potentially subject to RCRA corrective action authorities under sections 3004(u) and (v), and 3008(h), or imminent and substantial endangerment authorities under section 7003, if the munition lands off-range and is not promptly rendered safe and/or retrieved. Any imminent and substantial threats associated with any remaining material must be addressed. If remedial action is infeasible, the operator of the range must maintain a record of the event for as long as any threat remains. The record must include the type of munition and its location (to the extent the location is known).

§ 266.203 Standards applicable to the transportation of solid waste military munitions.

(a) Criteria for hazardous waste regulation of waste non-chemical military munitions in transportation. (1) Waste military munitions that are being transported and that exhibit a hazardous waste characteristic or are listed as hazardous waste under Section 261, are listed or identified as a hazardous waste (and thus are subject to regulation under Sections 260 through 270), unless all the following conditions are met:

(i) The waste military munitions are not chemical agents or chemical munitions;

(ii) The waste military munitions must be transported in accordance with the Department of Defense shipping controls applicable to the transport of military munitions;

(iii) The waste military munitions must be transported from a military owned or operated installation to a military owned or operated treatment, storage, or disposal facility; and

(iv) The transporter of the waste must provide oral notice to the Director within 24 hours from the time the transporter becomes aware of any loss or theft of the waste military munitions, or any failure to meet a condition of paragraph (a)(1) of this section that may endanger health or the environment. In addition, a written submission describing the circumstances shall be provided within 5 days from the time the transporter becomes aware of any loss or theft of the waste military munitions or any failure to meet a condition of

paragraph (a)(1) of this section.

(2) If any waste military munitions shipped under paragraph (a)(1) of this section are not received by the receiving facility within 45 days of the day the waste was shipped, the owner or operator of the receiving facility must report this non-receipt to the Director within 5 days.

(3) The exemption in paragraph (a)(1) of this section from regulation as hazardous waste shall apply only to the transportation of non-chemical waste military munitions. It does not affect the regulatory status of waste military munitions as hazardous wastes with regard to storage, treatment or disposal.

(4) The conditional exemption in paragraph (a)(1) of this section applies only so long as all of the conditions in paragraph (a)(1) of this section are met.

(b) Reinstatement of exemption. If any waste military munition loses its exemption under paragraph (a)(1) of this section, an application may be filed with the Director for reinstatement of the exemption from hazardous waste transportation regulation with respect to such munition as soon as the munition is returned to compliance with the conditions of paragraph (a)(1) of this section. If the Director finds that reinstatement of the exemption is appropriate based on factors such as the transporter's provision of a satisfactory explanation of the circumstances of the violation, or a demonstration that the violations are not likely to recur, the Director may reinstate the exemption under paragraph (a)(1) of this section. If the Director does not take action on the reinstatement application within 60 days after receipt of the application, then reinstatement shall be deemed granted, retroactive to the date of the application. The Director may terminate a conditional exemption reinstated by default in the preceding sentence if the Director finds that reinstatement is inappropriate based on factors such as the transporter's failure to provide a satisfactory explanation of the circumstances of the violation, or failure to demonstrate that the violations are not likely to recur. In reinstating the exemption under paragraph (a)(1) of this section, the Director may specify additional conditions as are necessary to ensure and document proper transportation to protect human health and the environment.

(c) Amendments to DOD shipping controls. The Department of Defense shipping controls applicable to the transport of military munitions referenced in paragraph (a)(1)(ii) of this section are Government Bill of Lading (GBL) (GSA Standard Form 1109), requisition tracking form DD Form 1348, the Signature and Talley Record (DD Form 1907), Special Instructions for Motor Vehicle Drivers (DD Form 836), and the Motor Vehicle Inspection Report (DD Form 626) in effect on November 8, 1995, except as provided in the following sentence. Any amendments to the Department of Defense shipping controls shall become effective for purposes of paragraph (a)(1) of this section on the date the Department of Defense publishes notice in the

Federal Register that the shipping controls referenced in paragraph (a)(1)(ii) of this section have been amended.

§ 266.204 Standards applicable to emergency responses.

Explosives and munitions emergencies involving military munitions or explosives are subject to §§ 262.10(i), 263.10(e), 264.1(g)(8), 265.1(c)(11), and 270.1(c)(3), or alternatively to § 270.61 of this regulation.

§ 266.205 Standards applicable to the storage of solid waste military munitions.

(a) Criteria for hazardous waste regulation of waste non-chemical military munitions in storage. (1) Waste military munitions in storage that exhibit a hazardous waste characteristic or are listed as hazardous waste under Section 261, are listed or identified as a hazardous waste (and thus are subject to regulation under Sections 260 through 279), unless all the following conditions are met:

(i) The waste military munitions are not chemical agents or chemical munitions.

(ii) The waste military munitions must be subject to the jurisdiction of the Department of Defense Explosives Safety Board (DDESB).

(iii) The waste military munitions must be stored in accordance with the DDESB storage standards applicable to waste military munitions.

(iv) Within 90 days of August 12, 1997 or within 90 days of when a storage unit is first used to store waste military munitions, whichever is later, the owner or operator must notify the Director of the location of any waste storage unit used to store waste military munitions for which the conditional exemption in paragraph (a)(1) is claimed.

(v) The owner or operator must provide oral notice to the Director within 24 hours from the time the owner or operator becomes aware of any loss or theft of the waste military munitions, or any failure to meet a condition of paragraph (a)(1) that may endanger health or the environment. In addition, a written submission describing the circumstances shall be provided within 5 days from the time the owner or operator becomes aware of any loss or theft of the waste military munitions or any failure to meet a condition of paragraph (a)(1) of this section.

(vi) The owner or operator must inventory the waste military munitions at least annually, must inspect the waste military munitions at

least quarterly for compliance with the conditions of paragraph (a)(1) of this section, and must maintain records of the findings of these inventories and inspections for at least three years.

(vii) Access to the stored waste military munitions must be limited to appropriately trained and authorized personnel.

(2) The conditional exemption in paragraph (a)(1) of this section from regulation as hazardous waste shall apply only to the storage of non-chemical waste military munitions. It does not affect the regulatory status of waste military munitions as hazardous wastes with regard to transportation, treatment or disposal.

(3) The conditional exemption in paragraph (a)(1) of this section applies only so long as all of the conditions in paragraph (a)(1) of this section are met.

(b) Notice of termination of waste storage. The owner or operator must notify the Director when a storage unit identified in paragraph (a)(1)(iv) of this section will no longer be used to store waste military munitions.

(c) Reinstatement of conditional exemption. If any waste military munition loses its conditional exemption under paragraph (a)(1) of this section, an application may be filed with the Director for reinstatement of the conditional exemption from hazardous waste storage regulation with respect to such munition as soon as the munition is returned to compliance with the conditions of paragraph (a)(1) of this section. If the Director finds that reinstatement of the conditional exemption is appropriate based on factors such as the owner's or operator's provision of a satisfactory explanation of the circumstances of the violation, or a demonstration that the violations are not likely to recur, the Director may reinstate the conditional exemption under paragraph (a)(1) of this section. If the Director does not take action on the reinstatement application within 60 days after receipt of the application, then reinstatement shall be deemed granted, retroactive to the date of the application. However, the Director may terminate a conditional exemption reinstated by default in the preceding sentence if he/she finds that reinstatement is inappropriate based on factors such as the owner's or operator's failure to provide a satisfactory explanation of the circumstances of the violation, or failure to demonstrate that the violations are not likely to recur. In reinstating the conditional exemption under paragraph (a)(1) of this section, the Director may specify additional conditions as are necessary to ensure and document proper storage to protect human health and the environment.

(d) Waste chemical munitions. (1) Waste military munitions that are chemical agents or chemical munitions and that exhibit a hazardous waste characteristic or are listed as hazardous waste under Section 261, are listed or identified as a hazardous waste and shall be subject to the applicable regulatory requirements of RCRA subtitle C.

(2) Waste military munitions that are chemical

agents or chemical munitions and that exhibit a hazardous waste characteristic or are listed as hazardous waste under Section 261, are not subject to the storage prohibition in RCRA section 3004(j), codified at 40 CFR 268.50.

(e) Amendments to DDESB storage standards. The DDESB storage standards applicable to waste military munitions, referenced in paragraph (a)(1)(iii) of this section, are DOD 6055.9-STD ("DOD Ammunition and Explosive Safety Standards"), in effect on November 8, 1995, except as provided in the following sentence. Any amendments to the DDESB storage standards shall become effective for purposes of paragraph (a)(1) of this section on the date the Department of Defense publishes notice in the Federal Register that the DDESB standards referenced in paragraph (a)(1) of this section have been amended.

§ 266.206 Standards applicable to the treatment and disposal of waste military munitions.

The treatment and disposal of hazardous waste military munitions are subject to the applicable permitting, procedural, and technical standards in Sections 260 through 270 of this regulation.

Subpart N—Conditional Exemption for Low-Level Mixed Waste Storage, Treatment, Transportation, and Disposal

Terms

§ 266.210 What definitions apply to this subpart?

This subsection uses the following special definitions:

"Agreement State" means a state that has entered into an agreement with the NRC under subsection 274b of the Atomic Energy Act of 1954, as amended (68 Stat. 919), to assume responsibility for regulating within its borders byproduct, source, or special nuclear material in quantities not sufficient to form a critical mass.

"Certified delivery" means certified mail with return receipt requested, or equivalent courier service, or other means, that provides the sender with a receipt confirming delivery.

"Director" refers to the definition in § 270.2.

"Eligible Naturally Occurring and/or Accelerator-produced Radioactive Material" (NARM) is NARM that is eligible for the Transportation and Disposal Conditional Exemption. It is a NARM waste that contains RCRA hazardous waste, meets the waste acceptance criteria of, and is allowed by State NARM regulations to be disposed of at a low-level radioactive waste disposal facility (LLRWDF) licensed in accordance with 10 CFR Part 61 or NRC

Agreement State equivalent regulations.

“Exempted waste” means a waste that meets the eligibility criteria in § 266.225 and meets all of the conditions in § 266.230, or meets the eligibility criteria in § 266.310 and complies with all the conditions in § 266.315. Such waste is conditionally exempted from the regulatory definition of hazardous waste described in § 261.3 of this regulation.

“Hazardous Waste” means any material which is defined to be hazardous waste in accordance with § 261.3, “Definition of Hazardous Waste.”

“Land Disposal Restriction (LDR) Treatment Standards” means treatment standards, under Section 268 of this regulation, that a RCRA hazardous waste must meet before it can be disposed of in a RCRA hazardous waste land disposal unit.

“License” means a license issued by the Nuclear Regulatory Commission, or NRC Agreement State, to users that manage radionuclides regulated by NRC, or NRC Agreement States, under authority of the Atomic Energy Act of 1954, as amended.

“Low-Level Mixed Waste” (LLMW) is a waste that contains both low-level radioactive waste and RCRA hazardous waste.

“Low-Level Radioactive Waste” (LLW) is a radioactive waste which contains source, special nuclear, or by-product material, and which is not classified as high-level radioactive waste, transuranic waste, spent nuclear fuel, or byproduct material as defined in section 11e.(2) of the Atomic Energy Act. (See also NRC definition of “waste” at 10 CFR 61.2)

“Mixed Waste” means a waste that contains both RCRA hazardous waste and source, special nuclear, or byproduct material subject to the Atomic Energy Act of 1954, as amended.

“Naturally Occurring and/or Accelerator-produced Radioactive Material” (NARM) means radioactive materials that:

(1) Are naturally occurring and are not source, special nuclear, or byproduct materials (as defined by the AEA) or

(2) Are produced by an accelerator. NARM is regulated by the States under State law, or by DOE (as authorized by the AEA) under DOE orders.

“NRC” means the U. S. Nuclear Regulatory Commission.

“We” or “us” within this subpart, means the Director as defined in § 270.2 of this regulation.

“You” means a generator, treater, or other handler of low-level mixed waste or eligible NARM.

Storage and Treatment Conditional Exemption and Eligibility

§ 266.220 What does a storage and treatment conditional exemption do?

The storage and treatment conditional exemption exempts your low-level mixed waste from the regulatory definition

of hazardous waste in § 261.3 if your waste meets the eligibility criteria in § 266.225 and you meet the conditions in § 266.230.

§ 266.225 What wastes are eligible for the storage and treatment conditional exemption?

Low-level mixed waste (LLMW), defined in § 266.210, is eligible for this conditional exemption if it is generated and managed by you under a single NRC or NRC Agreement State license. (Mixed waste generated at a facility with a different license number and shipped to your facility for storage or treatment requires a permit and is ineligible for this exemption. In addition, NARM waste is ineligible this exemption.)

§ 266.230 What conditions must you meet for your LLMW to qualify for and maintain a storage and treatment exemption?

(a) For your LLMW to qualify for the exemption you must notify us in writing by certified delivery that you are claiming a conditional exemption for the LLMW stored on your facility. The dated notification must include your name, address, RCRA identification number, NRC or NRC Agreement State license number, the waste code(s) and storage unit(s) for which you are seeking an exemption, and a statement that you meet the conditions of this subpart. Your notification must be signed by your authorized representative who certifies that the information in the notification is true, accurate, and complete. You must notify us of your claim either within 90 days of the effective date of this rule in your State, or within 90 days of when a storage unit is first used to store conditionally exempt LLMW.

(b) To qualify for and maintain an exemption for your LLMW you must:

(1) Store your LLMW waste in tanks or containers in compliance with the requirements of your license that apply to the proper storage of low-level radioactive waste (not including those license requirements that relate solely to recordkeeping);

(2) Store your LLMW in tanks or containers in compliance with chemical compatibility requirements of a tank or container in §§ 264.177, or 264.199 or 265.177, or 265.199 of this regulation;

(3) Certify that facility personnel who manage stored conditionally exempt LLMW are trained in a manner that ensures that the conditionally exempt waste is safely managed and includes training in chemical waste management and hazardous materials incidents response that meets the personnel training standards found in § 265.16(a)(3) of this regulation;

(4) Conduct an inventory of your stored conditionally exempt LLMW at least annually and inspect it at least quarterly for compliance with

subsection N of this section; and

(5) Maintain an accurate emergency plan and provide it to all local authorities who may have to respond to a fire, explosion, or release of hazardous waste or hazardous constituents. Your plan must describe emergency response arrangements with local authorities; describe evacuation plans; list the names, addresses, and telephone numbers of all facility personnel qualified to work with local authorities as emergency coordinators; and list emergency equipment.

Treatment

§ 266.235 What waste treatment does the storage and treatment conditional exemption allow?

You may treat your low-level mixed waste at your facility within a tank or container in accordance with the terms of your NRC or NRC Agreement State license. Treatment that cannot be done in a tank or container without a RCRA permit (such as incineration) is not allowed under this exemption.

Loss of Conditional Exemption

§ 266.240 How could you lose the conditional exemption for your LLMW and what action must you take?

(a) Your LLMW will automatically lose the storage and treatment conditional exemption if you fail to meet any of the conditions specified in § 266.230. When your LLMW loses the exemption, you must immediately manage that waste which failed the condition as RCRA hazardous waste, and the storage unit storing the LLMW immediately becomes subject to RCRA hazardous waste container and/or tank storage requirements.

(1) If you fail to meet any of the conditions specified in § 266.230 you must report to us and the NRC, or the oversight agency in the NRC Agreement State, in writing by certified delivery within 30 days of learning of the failure. Your report must be signed by your authorized representative certifying that the information provided is true, accurate, and complete. This report must include:

- (i) The specific condition(s) you failed to meet;
- (ii) A description of the LLMW (including the waste name, hazardous waste codes and quantity) and storage location at the facility; and
- (iii) The date(s) on which you failed to meet the condition(s).

(2) If the failure to meet any of the conditions may endanger human health or the environment,

you must also immediately notify us orally within 24 hours and follow up with a written notification within five days. Failures that may endanger human health or the environment include, but are not limited to, discharge of a CERCLA reportable quantity or other leaking or exploding tanks or containers, or detection of radionuclides above background or hazardous constituents in the leachate collection system of a storage area. If the failure may endanger human health or the environment, you must follow the provisions of your emergency plan.

(b) We may terminate your conditional exemption for your LLMW, or require you to meet additional conditions to claim a conditional exemption, for serious or repeated noncompliance with any requirement(s) of subpart N of this part.

§ 266.245 If you lose the storage and treatment conditional exemption for your LLMW, can the exemption be reclaimed?

(a) You may reclaim the storage and treatment exemption for your LLMW if:

(1) You again meet the conditions specified in § 266.230; and

(2) You send us a notice by certified delivery that you are reclaiming the exemption for your LLMW. Your notice must be signed by your authorized representative certifying that the information contained in your notice is true, complete, and accurate. In your notice you must do the following:

- (i) Explain the circumstances of each failure.
- (ii) Certify that you have corrected each failure that caused you to lose the exemption for your LLMW and that you again meet all the conditions as of the date you specify.
- (iii) Describe plans that you have implemented, listing specific steps you have taken, to ensure the conditions will be met in the future.
- (iv) Include any other information you want us to consider when we review your notice reclaiming the exemption.

(b) We may terminate a reclaimed conditional exemption if we find that your claim is inappropriate based on factors including, but not limited to, the following: you have failed to correct the problem; you explained the circumstances of the failure unsatisfactorily; or you failed to implement a plan with steps to prevent another failure to meet the conditions of §266.230. In reviewing a reclaimed conditional exemption under this section, we may add conditions to the exemption to ensure that waste management during storage and treatment of the LLMW will protect human health and the environment.

Recordkeeping

§ 266.250 What records must you keep at your facility and for how long?

(a) In addition to those records required by your NRC or NRC Agreement State license, you must keep records as follows:

(1) Your initial notification records, return receipts, reports to us of failure(s) to meet the exemption conditions, and all records supporting any reclaim of an exemption;

(2) Records of your LLMW annual inventories, and quarterly inspections;

(3) Your certification that facility personnel who manage stored mixed waste are trained in safe management of LLMW including training in chemical waste management and hazardous materials incidents response; and

(4) Your emergency plan as specified in § 266.230(b).

(b) You must maintain records concerning notification, personnel trained, and your emergency plan for as long as you claim this exemption and for three years thereafter, or in accordance with NRC regulations under 10 CFR part 20 (or equivalent NRC Agreement State regulations), whichever is longer. You must maintain records concerning your annual inventory and quarterly inspections for three years after the waste is sent for disposal, or in accordance with NRC regulations under 10 CFR part 20 (or equivalent NRC Agreement State regulations), whichever is longer.

Reentry Into RCRA

§ 266.255 When is your LLMW no longer eligible for the storage and treatment conditional exemption?

(a) When your LLMW has met the requirements of your NRC or NRC Agreement State license for decay-in-storage and can be disposed of as non-radioactive waste, then the conditional exemption for storage no longer applies. On that date your waste is subject to hazardous waste regulation under the relevant sections of Sections 260 through 268 of this regulation, and the time period for accumulation of a hazardous waste as specified in § 262.34 begins.

(b) When your conditionally exempt LLMW, which has been generated and stored under a single NRC or NRC Agreement State license number, is removed from storage, it is no longer eligible for the storage and treatment exemption. However, your waste may be eligible for the transportation and disposal conditional exemption at §266.305.

Storage Unit Closure

§ 266.260 Do closure requirements apply to units that stored LLMW prior to the effective date of Subpart N?

Interim status and permitted storage units that have been used to store only LLMW prior to the effective date of subpart N of this part and, after that date, store only LLMW which becomes exempt under this subpart N, are not subject to the closure requirements of Sections 264 and 265 of this regulation. Storage units (or portions of units) that have been used to store both LLMW and non-mixed hazardous waste prior to the effective date of subpart N or are used to store both after that date remain subject to closure requirements with respect to the non-mixed hazardous waste.

Transportation and Disposal Conditional Exemption

§ 266.305 What does the transportation and disposal conditional exemption do?

This conditional exemption exempts your waste from the regulatory definition of hazardous waste in § 261.3 if your waste meets the eligibility criteria under § 266.310, and you meet the conditions in § 266.315.

Eligibility

§ 266.310 What wastes are eligible for the transportation and disposal conditional exemption?

Eligible waste must be:

(a) A low-level mixed waste (LLMW), as defined in § 266.210, that meets the waste acceptance criteria of a LLRWDF; and/or

(b) An eligible NARM waste, defined in § 266.210.

Conditions

§ 266.315 What are the conditions you must meet for your waste to qualify for and maintain the transportation and disposal conditional exemption?

You must meet the following conditions for your eligible waste to qualify for and maintain the exemption:

(a) The eligible waste must meet or be treated to meet LDR treatment standards as described in § 266.320.

(b) If you are not already subject to NRC, or NRC Agreement State equivalent manifest and transportation regulations for the shipment of your waste, you must manifest and transport your waste according to NRC regulations as described in § 266.325.

(c) The exempted waste must be in containers when it is disposed of in the LLRWDF as described in § 266.340.

(d) The exempted waste must be disposed of at a designated LLRWDF as described in § 266.335.

§ 266.320 What treatment standards must your eligible waste meet?

Your LLMW or eligible NARM waste must meet Land Disposal Restriction (LDR) treatment standards specified in Section 268, subpart D of this regulation.

§266.325 Are you subject to the manifest and transportation condition in §266.315(b)?

If you are not already subject to NRC, or NRC Agreement State equivalent manifest and transportation regulations for the shipment of your waste, you must meet the manifest requirements under 10 CFR 20.2006 (or NRC Agreement State equivalent regulations), and the transportation requirements under 10 CFR 1.5 (or NRC Agreement State equivalent regulations) to ship the exempted waste.

§ 266.330 When does the transportation and disposal exemption take effect?

The exemption becomes effective once all the following have occurred:

(a) Your eligible waste meets the applicable LDR treatment standards.

(b) You have received return receipts that you have notified both ADEQ and the LLRWDF as described in 266.345.

(c) You have completed the packaging and preparation for shipment requirements for your waste according to NRC Packaging and Transportation regulations found under 10 CFR part 71 (or NRC Agreement State equivalent regulations); and you have prepared a manifest for your waste according to NRC manifest regulations found under 10 CFR part 20 (or NRC Agreement State equivalent regulations), and

(d) You have placed your waste on a transportation vehicle destined for a LLRWDF licensed by NRC or an NRC Agreement State.

§ 266.335 Where must your exempted waste be disposed of?

Your exempted waste must be disposed of in a LLRWDF that is regulated and licensed by NRC under 10 CFR part 61 or by an NRC Agreement State under equivalent State regulations, including State NARM licensing regulations for eligible NARM.

§ 266.340 What type of container must be used for disposal of exempted waste?

Your exempted waste must be placed in containers before it is disposed. The container must be:

(a) A carbon steel drum; or

(b) An alternative container with equivalent containment performance in the disposal environment as a carbon steel drum; or

(c) A high integrity container as defined by NRC.

Notification

§ 266.345 Whom must you notify?

(a) You must provide a one time notice to ADEQ stating that you are claiming the transportation and disposal conditional exemption prior to the initial shipment of an exempted waste from your facility to a LLRWDF. Your dated written notice must include your facility name, address, phone number, and RCRA ID number, and be sent by certified delivery.

(b) You must notify the LLRWDF receiving your exempted waste by certified delivery before shipment of each exempted waste. You can only ship the exempted waste after you have received the return receipt of your notice to the LLRWDF. This notification must include the following:

(1) A statement that you have claimed the exemption for the waste.

(2) A statement that the eligible waste meets applicable LDR treatment standards.

(3) Your facility's name, address, and RCRA ID number.

(4) The RCRA hazardous waste codes prior to the exemption of the waste streams.

(5) A statement that the exempted waste must be placed in a container according to Sec. 266.340 prior to disposal in order for the waste to remain exempt under the transportation and disposal conditional exemption of subpart N of this part.

(6) The manifest number of the shipment that will contain the exempted waste.

(7) A certification that all the information provided is true, complete, and accurate. The statement must be signed by your authorized representative.

Recordkeeping

§ 266.350 What records must you keep at your facility and for how long?

In addition to those records required by your NRC or NRC Agreement State license, you must keep records as follows:

(a) You must follow the applicable existing recordkeeping requirements under §§ 264.73, 265.73, and 268.7 of this regulation to demonstrate that your waste has met LDR

treatment standards prior to your claiming the exemption.

(b) You must keep a copy of all notifications and return receipts required under §§ 266.355, and § 266.360 for three years after the exempted waste is sent for disposal.

(c) You must keep a copy of all notifications and return receipts required under § 266.345(a) for three years after the last exempted waste is sent for disposal.

(d) You must keep a copy of the notification and return receipt required under § 266.345(b) for three years after the exempted waste is sent for disposal.

(e) If you are not already subject to NRC, or NRC Agreement State equivalent manifest and transportation regulations for the shipment of your waste, you must also keep all other documents related to tracking the exempted waste as required under 10 CFR 20.2006 or NRC Agreement State equivalent regulations, including applicable NARM requirements, in addition to the records specified in § 266.350(a) through (d).

Loss of Transportation and Disposal Conditional Exemption

§ 266.355 How could you lose the transportation and disposal conditional exemption for your waste and what actions must you take?

(a) Any waste will automatically lose the transportation and disposal exemption if you fail to manage it in accordance with all of the conditions specified in § 266.315.

(1) When you fail to meet any of the conditions specified in § 266.315 for any of your wastes, you must report to ADEQ, in writing by certified delivery, within 30 days of learning of the failure. Your report must be signed by your authorized representative certifying that the information provided is true, accurate, and complete. This report must include:

- (i) The specific condition(s) that you failed to meet for the waste;
- (ii) A description of the waste (including the waste name, hazardous waste codes and quantity) that lost the exemption; and
- (iii) The date(s) on which you failed to meet the condition(s) for the waste.

(2) If the failure to meet any of the conditions may endanger human health or the environment, you must also immediately notify ADEQ orally within 24 hours and follow up with a written notification

within 5 days.

(b) ADEQ may terminate your ability to claim a conditional exemption for your waste, or require you to meet additional conditions to claim a conditional exemption, for serious or repeated noncompliance with any requirement(s) of subsection N of this section.

§ 266.360 If you lose the transportation and disposal conditional exemption for a waste, can the exemption be reclaimed?

(a) You may reclaim the transportation and disposal exemption for a waste after you have received a return receipt confirming that ADEQ has received your notification of the loss of the exemption specified in § 266.355(a) and if:

(1) You again meet the conditions specified in § 266.315 for the waste; and

(2) You send a notice, by certified delivery, to ADEQ that you are reclaiming the exemption for the waste. Your notice must be signed by your authorized representative certifying that the information provided is true, accurate, and complete. The notice must:

- (i) Explain the circumstances of each failure.
- (ii) Certify that each failure that caused you to lose the exemption for the waste has been corrected and that you again meet all conditions for the waste as of the date you specify.
- (iii) Describe plans you have implemented, listing the specific steps that you have taken, to ensure that conditions will be met in the future.
- (iv) Include any other information you want us to consider when we review your notice reclaiming the exemption.

(b) ADEQ may terminate a reclaimed conditional exemption if the Department finds that your claim is inappropriate based on factors including, but not limited to: you have failed to correct the problem; you explained the circumstances of the failure unsatisfactorily; or you failed to implement a plan with steps to prevent another failure to meet the conditions of § 266.315. In reviewing a reclaimed conditional exemption under this section, we may add conditions to the exemption to ensure that transportation and disposal activities will protect human health and the environment.

Section 266

Appendices

Appendix I.-Tier I and Tier II Feed Rate and Emissions Screening Limits for Metals

Table I-A.-Tier I and Tier II Feed Rate and Emissions Screening Limits for Noncarcinogenic Metals for Facilities in Noncomplex Terrain

[Values for urban areas]

Terrain adjusted r)eff. stack ht. (m)	Antimony (g/hr)	Barium (g/hr)	Lead (g/hr)	Mercury (g/hr)	Silver (g/hr)	Thallium (g/
4	6.0E+01	1.0E+04	1.8E+01	6.0E+01	6.0E+02	6.0E+01
6	6.8E+01	1.1E+04	2.0E+01	6.8E+01	6.8E+02	6.8E+01
8	7.6E+01	1.3E+04	2.3E+01	7.6E+01	7.6E+02	7.6E+01
10	8.6E+01	1.4E+04	2.6E+01	8.6E+01	8.6E+02	8.6E+01
12	9.6E+01	1.7E+04	3.0E+01	9.6E+01	9.6E+02	9.6E+01
14	1.1E+02	1.8E+04	3.4E+01	1.1E+02	1.1E+03	1.1E+02
16	1.3E+02	2.1E+04	3.6E+01	1.3E+02	1.3E+03	1.3E+02
18	1.4E+02	2.4E+04	4.3E+01	1.4E+02	1.4E+03	1.4E+02
20	1.6E+02	2.7E+04	4.6E+01	1.6E+02	1.6E+03	1.6E+02
22	1.8E+02	3.0E+04	5.4E+01	1.8E+02	1.8E+03	1.8E+02
24	2.0E+02	3.4E+04	6.0E+01	2.0E+02	2.0E+03	2.0E+02
26	2.3E+02	3.9E+04	6.8E+01	2.3E+02	2.3E+03	2.3E+02
28	2.6E+02	4.3E+04	7.8E+01	2.6E+02	2.6E+03	2.6E+02
30	3.0E+02	5.0E+04	9.0E+01	3.0E+02	3.0E+03	3.0E+02
35	4.0E+02	6.6E+04	1.1E+02	4.0E+02	4.0E+03	4.0E+02
40	4.6E+02	7.8E+04	1.4E+02	4.6E+02	4.6E+03	4.6E+02
45	6.0E+02	1.0E+05	1.8E+02	6.0E+02	6.0E+03	6.0E+02
50	7.8E+02	1.3E+05	2.3E+02	7.8E+02	7.8E+03	7.8E+02
55	9.6E+02	1.7E+05	3.0E+02	9.6E+02	9.6E+03	9.6E+02
60	1.2E+03	2.0E+05	3.6E+02	1.2E+03	1.2E+04	1.2E+03
65	1.5E+03	2.5E+05	4.3E+02	1.5E+03	1.5E+04	1.5E+03
70	1.7E+03	2.8E+05	5.0E+02	1.7E+03	1.7E+04	1.7E+03
75	1.9E+03	3.2E+05	5.8E+02	1.9E+03	1.9E+04	1.9E+03
80	2.2E+03	3.6E+05	6.4E+02	2.2E+03	2.2E+04	2.2E+03
85	2.5E+03	4.0E+05	7.6E+02	2.5E+03	2.5E+04	2.5E+03
90	2.8E+03	4.6E+05	8.2E+02	2.8E+03	2.8E+04	2.8E+03
95	3.2E+03	5.4E+05	9.6E+02	3.2E+03	3.2E+04	3.2E+03
100	3.6E+03	6.0E+05	1.1E+03	3.6E+03	3.6E+04	3.6E+03
105	4.0E+03	6.8E+05	1.2E+03	4.0E+03	4.0E+04	4.0E+03
110	4.6E+03	7.8E+05	1.4E+03	4.6E+03	4.6E+04	4.6E+03
115	5.4E+03	8.6E+05	1.6E+03	5.4E+03	5.4E+04	5.4E+03
120	6.0E+03	1.0E+06	1.8E+03	6.0E+03	6.0E+04	6.0E+03

Table I-B.-Tier I and Tier II Feed Rate and Emissions Screening Limits for Noncarcinogenic Metals for Facilities in Noncomplex Terrain

Terrain adjusted eff. stack ht. (m)	Antimony (g/hr)	Barium (g/hr)	Lead (g/hr)	Mercury (g/hr)	Silver (g/hr)	Thallium (g/hr)
4	3.1E+01	5.2E+03	9.4E+00	3.1E+01	3.1E+02	3.1E+01
6	3.6E+01	6.0E+03	1.1E+01	3.6E+01	3.6E+02	3.6E+01
8	4.0E+01	6.8E+03	1.2E+01	4.0E+01	4.0E+02	4.0E+01
10	4.6E+01	7.8E+03	1.4E+01	4.6E+01	4.6E+02	4.6E+01
12	5.8E+01	9.6E+03	1.7E+01	5.8E+01	5.8E+02	5.8E+01
14	6.8E+01	1.1E+04	2.1E+01	6.8E+01	6.8E+02	6.8E+01
16	8.6E+01	1.4E+04	2.6E+01	8.6E+01	8.6E+02	8.6E+01
18	1.1E+02	1.8E+04	3.2E+01	1.1E+02	1.1E+03	1.1E+02
20	1.3E+02	2.2E+04	4.0E+01	1.3E+02	1.3E+03	1.3E+02
22	1.7E+02	2.8E+04	5.0E+01	1.7E+02	1.7E+03	1.7E+02
24	2.2E+02	3.6E+04	6.4E+01	2.2E+02	2.2E+03	2.2E+02
26	2.8E+02	4.6E+04	8.2E+01	2.8E+02	2.8E+03	2.8E+02

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Terrain adjusted eff. stack ht. (m)	Antimony (g/hr)	Barium (g/hr)	Lead (g/hr)	Mercury (g/hr)	Silver (g/hr)	Thallium (g/hr)
28	3.5E+02	5.8E+04	1.0E+02	3.5E+02	3.5E+03	3.5E+02
30	4.3E+02	7.6E+04	1.3E+02	4.3E+02	4.3E+03	4.3E+02
35	7.2E+02	1.2E+05	2.1E+02	7.2E+02	7.2E+03	7.2E+02
40	1.1E+03	1.8E+05	3.2E+02	1.1E+03	1.1E+04	1.1E+03
45	1.5E+03	2.5E+05	4.6E+02	1.5E+03	1.5E+04	1.5E+03
50	2.0E+03	3.3E+05	6.0E+02	2.0E+03	2.0E+04	2.0E+03
55	2.6E+03	4.4E+05	7.8E+02	2.6E+03	2.6E+04	2.6E+03
60	3.4E+03	5.8E+05	1.0E+03	3.4E+03	3.4E+04	3.4E+03
65	4.6E+03	7.6E+05	1.4E+03	4.6E+03	4.6E+04	4.6E+03
70	5.4E+03	9.0E+05	1.6E+03	5.4E+03	5.4E+04	5.4E+03
75	6.4E+03	1.1E+06	1.9E+03	6.4E+03	6.4E+04	6.4E+03
80	7.6E+03	1.3E+06	2.3E+03	7.6E+03	7.6E+04	7.6E+03
85	9.4E+03	1.5E+06	2.8E+03	9.4E+03	9.4E+04	9.4E+03
90	1.1E+04	1.8E+06	3.3E+03	1.1E+04	1.1E+05	1.1E+04
95	1.3E+04	2.2E+06	3.9E+03	1.3E+04	1.3E+05	1.3E+04
100	1.5E+04	2.6E+06	4.6E+03	1.5E+04	1.5E+05	1.5E+04
105	1.8E+04	3.0E+06	5.4E+03	1.8E+04	1.8E+05	1.8E+04
110	2.2E+04	3.6E+06	6.6E+03	2.2E+04	2.2E+05	2.2E+04
115	2.6E+04	4.4E+06	7.8E+03	2.6E+04	2.6E+05	2.6E+04
120	3.1E+04	5.0E+06	9.2E+03	3.1E+04	3.1E+05	3.1E+04

Table I-C.-Tier I and Tier II Feed Rate and Emissions Screening Limits for Noncarcinogenic Metals for Facilities in Complex Terrain
 Values for urban and rural areas

Terrain adjusted eff. stack ht. (m)	Antimony (g/hr)	Barium (g/hr)	Lead (g/hr)	Mercury (g/hr)	Silver (g/hr)	Thallium (g/hr)
4	1.4E+01	2.4E+03	4.3E+00	1.4E+01	1.4E+02	1.4E+01
6	2.1E+01	3.5E+03	6.2E+00	2.1E+01	2.1E+02	2.1E+01
8	3.0E+01	5.0E+03	9.2E+00	3.0E+01	3.0E+02	3.0E+01
10	4.3E+01	7.6E+03	1.3E+01	4.3E+01	4.3E+02	4.3E+01
12	5.4E+01	9.0E+03	1.7E+01	5.4E+01	5.4E+02	5.4E+01
14	6.8E+01	1.1E+04	2.0E+01	6.8E+01	6.8E+02	6.8E+01
16	7.8E+01	1.3E+04	2.4E+01	7.8E+01	7.8E+02	7.8E+01
18	8.6E+01	1.4E+04	2.6E+01	8.6E+01	8.6E+02	8.6E+01
20	9.6E+01	1.6E+04	2.9E+01	9.6E+01	9.6E+02	9.6E+01
22	1.0E+02	1.8E+04	3.2E+01	1.0E+02	1.0E+03	1.0E+02
24	1.2E+02	1.9E+04	3.5E+01	1.2E+02	1.2E+03	1.2E+02
26	1.3E+02	2.2E+04	3.6E+01	1.3E+02	1.3E+03	1.3E+02
28	1.4E+02	2.4E+04	4.3E+01	1.4E+02	1.4E+03	1.4E+02
30	1.6E+02	2.7E+04	4.6E+01	1.6E+02	1.6E+03	1.6E+02
35	2.0E+02	3.3E+04	5.8E+01	2.0E+02	2.0E+03	2.0E+02
40	2.4E+02	4.0E+04	7.2E+01	2.4E+02	2.4E+03	2.4E+02
45	3.0E+02	5.0E+04	9.0E+01	3.0E+02	3.0E+03	3.0E+02
50	3.6E+02	6.0E+04	1.1E+02	3.6E+02	3.6E+03	3.6E+02
55	4.6E+02	7.6E+04	1.4E+02	4.6E+02	4.6E+03	4.6E+02
60	5.8E+02	9.4E+04	1.7E+02	5.8E+02	5.8E+03	5.8E+02
65	6.8E+02	1.1E+05	2.1E+02	6.8E+02	6.8E+03	6.8E+02
70	7.8E+02	1.3E+05	2.4E+02	7.8E+02	7.8E+03	7.8E+02
75	8.6E+02	1.4E+05	2.6E+02	8.6E+02	8.6E+03	8.6E+02
80	9.6E+02	1.6E+05	2.9E+02	9.6E+02	9.6E+03	9.6E+02
85	1.1E+03	1.8E+05	3.3E+02	1.1E+03	1.1E+04	1.1E+03
90	1.2E+03	2.0E+05	3.6E+02	1.2E+03	1.2E+04	1.2E+03
95	1.4E+03	2.3E+05	4.0E+02	1.4E+03	1.4E+04	1.4E+03
100	1.5E+03	2.6E+05	4.6E+02	1.5E+03	1.5E+04	1.5E+03
105	1.7E+03	2.8E+05	5.0E+02	1.7E+03	1.7E+04	1.7E+03
110	1.9E+03	3.2E+05	5.8E+02	1.9E+03	1.9E+04	1.9E+03
115	2.1E+03	3.6E+05	6.4E+02	2.1E+03	2.1E+04	2.1E+03
120	2.4E+03	4.0E+05	7.2E+02	2.4E+03	2.4E+04	2.4E+03

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Table I-D.-Tier I and Tier II Feed Rate and Emissions Screening Limits for Carcinogenic Metals for Facilities in Noncomplex Terrain

Terrain adjusted eff. stack ht. (m)	Values for use in urban areas				Values for use in rural areas			
	Arsenic (g/hr)	Cadmium (g/hr)	Chromium (g/hr)	Beryllium (g/hr)	Arsenic (g/hr)	Cadmium (g/hr)	Chromium (g/hr)	Beryllium (g/hr)
4	4.6E-01	1.1E+00	1.7E-01	8.2E-01	2.4E-01	5.8E-01	8.6E-02	4.3E-01
6	5.4E-01	1.3E+00	1.9E-01	9.4E-01	2.8E-01	6.6E-01	1.0E-01	5.0E-01
8	6.0E-01	1.4E+00	2.2E-01	1.1E+00	3.2E-01	7.6E-01	1.1E-01	5.6E-01
10	6.8E-01	1.6E+00	2.4E-01	1.2E+00	3.6E-01	8.6E-01	1.3E-01	6.4E-01
12	7.6E-01	1.8E+00	2.7E-01	1.4E+00	4.3E-01	1.1E+00	1.6E-01	7.8E-01
14	8.6E-01	2.1E+00	3.1E-01	1.5E+00	5.4E-01	1.3E+00	2.0E-01	9.6E-01
16	9.6E-01	2.3E+00	3.5E-01	1.7E+00	6.8E-01	1.6E+00	2.4E-01	1.2E+00
18	1.1E+00	2.6E+00	4.0E-01	2.0E+00	8.2E-01	2.0E+00	3.0E-01	1.5E+00
20	1.2E+00	3.0E+00	4.4E-01	2.2E+00	1.0E+00	2.5E+00	3.7E-01	1.9E+00
22	1.4E+00	3.4E+00	5.0E-01	2.5E+00	1.3E+00	3.2E+00	4.8E-01	2.4E+00
24	1.6E+00	3.9E+00	5.8E-01	2.8E+00	1.7E+00	4.0E+00	6.0E-01	3.0E+00
26	1.8E+00	4.3E+00	6.4E-01	3.2E+00	2.1E+00	5.0E+00	7.6E-01	3.9E+00
28	2.0E+00	4.8E+00	7.2E-01	3.6E+00	2.7E+00	6.4E+00	9.8E-01	5.0E+00
30	2.3E+00	5.4E+00	8.2E-01	4.0E+00	3.5E+00	8.2E+00	1.2E+00	6.2E+00
35	3.0E+00	6.8E+00	1.0E+00	5.4E+00	5.4E+00	1.3E+01	1.9E+00	9.6E+00
40	3.6E+00	9.0E+00	1.3E+00	6.8E+00	8.2E+00	2.0E+01	3.0E+00	1.5E+01
45	4.6E+00	1.1E+01	1.7E+00	8.6E+00	1.1E+01	2.8E+01	4.2E+00	2.1E+01
50	6.0E+00	1.4E+01	2.2E+00	1.1E+01	1.5E+01	3.7E+01	5.4E+00	2.8E+01
55	7.6E+00	1.8E+01	2.7E+00	1.4E+01	2.0E+01	5.0E+01	7.2E+00	3.6E+01
60	9.4E+00	2.2E+01	3.4E+00	1.7E+01	2.7E+01	6.4E+01	9.6E+00	4.8E+01
65	1.1E+01	2.8E+01	4.2E+00	2.1E+01	3.6E+01	8.6E+01	1.3E+01	6.4E+01
70	1.3E+01	3.1E+01	4.6E+00	2.4E+01	4.3E+01	1.0E+02	1.5E+01	7.6E+01
75	1.5E+01	3.6E+01	5.4E+00	2.7E+01	5.0E+01	1.2E+02	1.8E+01	9.0E+01
80	1.7E+01	4.0E+01	6.0E+00	3.0E+01	6.0E+01	1.4E+02	2.2E+01	1.1E+02
85	1.9E+01	4.6E+01	6.8E+00	3.4E+01	7.2E+01	1.7E+02	2.6E+01	1.3E+02
90	2.2E+01	5.0E+01	7.8E+00	3.9E+01	8.6E+01	2.0E+02	3.0E+01	1.5E+02
95	2.5E+01	5.8E+01	9.0E+00	4.4E+01	1.0E+02	2.4E+02	3.6E+01	1.8E+02
100	2.8E+01	6.8E+01	1.0E+01	5.0E+01	1.2E+02	2.9E+02	4.3E+01	2.2E+02
105	3.2E+01	7.6E+01	1.1E+01	5.6E+01	1.4E+02	3.4E+02	5.0E+01	2.6E+02
110	3.6E+01	8.6E+01	1.3E+01	6.4E+01	1.7E+02	4.0E+02	6.0E+01	3.0E+02
115	4.0E+01	9.6E+01	1.5E+01	7.2E+01	2.0E+02	4.8E+02	7.2E+01	3.6E+02
120	4.6E+01	1.1E+02	1.7E+01	8.2E+01	2.4E+02	5.8E+02	8.6E+01	4.3E+02

Table I-E.-Tier I and Tier II Feed Rate and Emissions Screening Limits for Carcinogenic Metals for Facilities in Complex Terrain

Values for use in urban and rural areas

Terrain adjusted eff. stack ht. (m)	Arsenic (g/hr)	Cadmium (g/hr)	Chromium (g/hr)	Beryllium (g/hr)
4	1.1E-01	2.6E-01	4.0E-02	2.0E-01
6	1.6E-01	3.9E-01	5.8E-02	2.9E-01
8	2.4E-01	5.8E-01	8.6E-02	4.3E-01
10	3.5E-01	8.2E-01	1.3E-01	6.2E-01
12	4.3E-01	1.0E+00	1.5E-01	7.6E-01
14	5.0E-01	1.3E+00	1.9E-01	9.4E-01
16	6.0E-01	1.4E+00	2.2E-01	1.1E+00
18	6.8E-01	1.6E+00	2.4E-01	1.2E+00
20	7.6E-01	1.8E+00	2.7E-01	1.3E+00
22	8.2E-01	1.9E+00	3.0E-01	1.5E+00
24	9.0E-01	2.1E+00	3.3E-01	1.6E+00
26	1.0E+00	2.4E+00	3.6E-01	1.8E+00
28	1.1E+00	2.7E+00	4.0E-01	2.0E+00
30	1.2E+00	3.0E+00	4.4E-01	2.2E+00
35	1.5E+00	3.7E+00	5.4E-01	2.7E+00
40	1.9E+00	4.6E+00	6.8E-01	3.4E+00
45	2.4E+00	5.4E+00	8.4E-01	4.2E+00
50	2.9E+00	6.8E+00	1.0E+00	5.0E+00
55	3.5E+00	8.4E+00	1.3E+00	6.4E+00

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Terrain adjusted eff. stack ht. (m)	Arsenic (g/hr)	Cadmium (g/hr)	Chromium (g/hr)	Beryllium (g/hr)
60	4.3E+00	1.0E+01	1.5E+00	7.8E+00
65	5.4E+00	1.3E+01	1.9E+00	9.6E+00
70	6.0E+00	1.4E+01	2.2E+00	1.1E+01
75	6.8E+00	1.6E+01	2.4E+00	1.2E+01
80	7.6E+00	1.8E+01	2.7E+00	1.3E+01
85	8.2E+00	2.0E+01	3.0E+00	1.5E+01
90	9.4E+00	2.3E+01	3.4E+00	1.7E+01
95	1.0E+01	2.5E+01	4.0E+00	1.9E+01
100	1.2E+01	2.8E+01	4.3E+00	2.1E+01
105	1.3E+01	3.2E+01	4.8E+00	2.4E+01
110	1.5E+01	3.5E+01	5.4E+00	2.7E+01
115	1.7E+01	4.0E+01	6.0E+00	3.0E+01
120	1.9E+01	4.4E+01	6.4E+00	3.3E+01

Appendix II-Tier I Feed Rate Screening Limits for Total Chlorine

Terrain-adjusted effective stack height (m)	Noncomplex Terrain		Complex Terrain
	Urban (g/hr)	Rural (g/hr)	(g/hr)
4	8.2E + 01	4.2E + 01	1.9E + 01
6	9.1E + 01	4.8E + 01	2.8E + 01
8	1.0E + 02	5.3E + 01	4.1E + 01
10	1.2E + 02	6.2E + 01	5.8E + 01
12	1.3E + 02	7.7E + 01	7.2E + 01
14	1.5E + 02	9.1E + 01	9.1E + 01
16	1.7E + 02	1.2E + 02	1.1E + 02
18	1.9E + 02	1.4E + 02	1.2E + 02
20	2.1E + 02	1.8E + 02	1.3E + 02
22	2.4E + 02	2.3E + 02	1.4E + 02
24	2.7E + 02	2.9E + 02	1.6E + 02
26	3.1E + 02	3.7E + 02	1.7E + 02
28	3.5E + 02	4.7E + 02	1.9E + 02
30	3.9E + 02	5.8E + 02	2.1E + 02
35	5.3E + 02	9.6E + 02	2.6E + 02
40	6.2E + 02	1.4E + 03	3.3E + 02
45	8.2E + 02	2.0E + 03	4.0E + 02
50	1.1E + 03	2.6E + 03	4.8E + 02
55	1.3E + 03	3.5E + 03	6.2E + 02
60	1.6E + 03	4.6E + 03	7.7E + 02
65	2.0E + 03	6.2E + 03	9.1E + 02
70	2.3E + 03	7.2E + 03	1.1E + 03
75	2.5E + 03	8.6E + 03	1.2E + 03
80	2.9E + 03	1.0E + 04	1.3E + 03
85	3.3E + 03	1.2E + 04	1.4E + 03
90	3.7E + 03	1.4E + 04	1.6E + 03
95	4.2E + 03	1.7E + 04	1.8E + 03
100	4.8E + 03	2.1E + 04	2.0E + 03
105	5.3E + 03	2.4E + 04	2.3E + 03
110	6.2E + 03	2.9E + 04	2.5E + 03
115	7.2E + 03	3.5E + 04	2.8E + 03
120	8.2E + 03	4.1E + 04	3.2E + 03

Appendix III-Tier II Emission Rate Screening Limits for Free Chlorine and Hydrogen Chloride

Terrain-adjusted effective stack height (m)	Noncomplex terrain				Complex terrain	
	Values for urban areas		Values for rural areas		Values for use in urban and rural areas	
	Cl ₂ (g/hr)	HCl (g/hr)	Cl ₂ (g/hr)	HCl (g/hr)	Cl ₂ (g/hr)	HCl (g/hr)
4	8.2E + 01	1.4E + 03	4.2E + 01	7.3E + 02	1.9E + 01	3.3E + 02
6	9.1E + 01	1.6E + 03	4.8E + 01	8.3E + 02	2.8E + 01	4.9E + 02
8	1.0E + 02	1.8E + 03	5.3E + 01	9.2E + 02	4.1E + 01	7.1E + 02
10	1.2E + 02	2.0E + 03	6.2E + 01	1.1E + 03	5.8E + 01	1.0E + 03
12	1.3E + 02	2.3E + 03	7.7E + 01	1.3E + 03	7.2E + 01	1.3E + 03
14	1.5E + 02	2.6E + 03	9.1E + 01	1.6E + 03	9.1E + 01	1.6E + 03
16	1.7E + 02	2.9E + 03	1.2E + 02	2.0E + 03	1.1E + 02	1.8E + 03

Terrain-adjusted effective stack height (m)	Noncomplex terrain				Complex terrain	
	Values for urban areas		Values for rural areas		Values for use in urban and rural areas	
	Cl ₂ (g/hr)	HCl (g/hr)	Cl ₂ (g/hr)	HCl (g/hr)	Cl ₂ (g/hr)	HCl (g/hr)
18	1.9E + 02	3.3E + 03	1.4E + 02	2.5E + 03	1.2E + 02	2.0E + 03
20	2.1E + 02	3.7E + 03	1.8E + 02	3.1E + 03	1.3E + 02	2.3E + 03
22	2.4E + 02	4.2E + 03	2.3E + 02	3.9E + 03	1.4E + 02	2.4E + 03
24	2.7E + 02	4.8E + 03	2.9E + 02	5.0E + 03	1.6E + 02	2.8E + 03
26	3.1E + 02	5.4E + 03	3.7E + 02	6.5E + 03	1.7E + 02	3.0E + 03
28	3.5E + 02	6.0E + 03	4.7E + 02	8.1E + 03	1.9E + 02	3.4E + 03
30	3.9E + 02	6.9E + 03	5.8E + 02	1.0E + 04	2.1E + 02	3.7E + 03
35	5.3E + 02	9.2E + 03	9.6E + 02	1.7E + 04	2.6E + 02	4.6E + 03
40	6.2E + 02	1.1E + 04	1.4E + 03	2.5E + 04	3.3E + 02	5.7E + 03
45	8.2E + 02	1.4E + 04	2.0E + 03	3.5E + 04	4.0E + 02	7.0E + 03
50	1.1E + 03	1.8E + 04	2.6E + 03	4.6E + 04	4.8E + 02	8.4E + 03
55	1.3E + 03	2.3E + 04	3.5E + 03	6.1E + 04	6.2E + 02	1.1E + 04
60	1.6E + 03	2.9E + 04	4.6E + 03	8.1E + 04	7.7E + 02	1.3E + 04
65	2.0E + 03	3.4E + 04	6.2E + 03	1.1E + 05	9.1E + 02	1.6E + 04
70	2.3E + 03	3.9E + 04	7.2E + 03	1.3E + 05	1.1E + 03	1.8E + 04
75	2.5E + 03	4.5E + 04	8.6E + 03	1.5E + 05	1.2E + 03	2.0E + 04
80	2.9E + 03	5.0E + 04	1.0E + 04	1.8E + 05	1.3E + 03	2.3E + 04
85	3.3E + 03	5.8E + 04	1.2E + 04	2.2E + 05	1.4E + 03	2.5E + 04
90	3.7E + 03	6.6E + 04	1.4E + 04	2.5E + 05	1.6E + 03	2.9E + 04
95	4.2E + 03	7.4E + 04	1.7E + 04	3.0E + 05	1.8E + 03	3.2E + 04
100	4.8E + 03	8.4E + 04	2.1E + 04	3.6E + 05	2.0E + 03	3.5E + 04
105	5.3E + 03	9.2E + 04	2.4E + 04	4.3E + 05	2.3E + 03	3.9E + 04
110	6.2E + 03	1.1E + 05	2.9E + 04	5.1E + 05	2.5E + 03	4.5E + 04
115	7.2E + 03	1.3E + 05	3.5E + 04	6.1E + 05	2.8E + 03	5.0E + 04
120	8.2E + 03	1.4E + 05	4.1E + 04	7.2E + 05	3.2E + 03	5.6E + 04

Appendix IV-Reference Air Concentrations*

Constituent	CAS No.	RAC (ug/m ³)	Constituent	CAS No.	RAC (ug/m ³)
Acetaldehyde	75-07-0	10	Endosulfan	115-29-1	0.05
Acetonitrile	75-05-8	10	Endrin	72-20-8	0.3
Acetophenone	98-86-2	100	Fluorine	7782-41-4	50
Acrolein	107-02-8	20	Formic Acid	64-18-6	2000
Aldicarb	116-06-3	1	Glycidyaldehyde	765-34-4	0.3
Aluminum Phosphide	20859-73-8	0.3	Hexachlorocyclopentadiene	77-47-4	5
Allyl Alcohol	107-18-6	5	Hexachlorophene	70-30-4	0.3
Antimony	7440-36-0	0.3	Hydrocyanic Acid	74-90-8	20
Barium	7440-39-3	50	Hydrogen Chloride	7647-01-1	7
Barium Cyanide	542-62-1	50	Hydrogen Sulfide	7783-06-4	3
Bromomethane	74-83-9	0.8	Isobutyl Alcohol	78-83-1	300
Calcium Cyanide	592-01-8	30	Lead	7439-92-1	0.09
Carbon Disulfide	75-15-0	200	Maleic Anyhdride	108-31-6	100
Chloral	75-87-6	2	Mercury	7439-97-6	0.3
Chlorine (free)		0.4	Methacrylonitrile	126-98-7	0.1
2-Chloro-1,3-butadiene	126-99-8	3	Methomyl	16752-77-5	20
Chromium III	16065-83-1	1000	Methoxychlor	72-43-5	50
Copper Cyanide	544-92-3	5	Methyl Chlorocarbonate	79-22-1	1000
Cresols	1319-77-3	50	Methyl Ethyl Ketone	78-93-3	80
Cumene	98-82-8	1	Methyl Parathion	298-00-0	0.3
Cyanide (free)	57-12-15	20	Nickel Cyanide	557-19-7	20
Cyanogen	460-19-5	30	Nitric Oxide	10102-43-9	100
Cyanogen Bromide	506-68-3	80	Nitrobenzene	98-95-3	0.8
Di-n-butyl Phthalate	84-74-2	100	Pentachlorobenzene	608-93-5	0.8
o-Dichlorobenzene	95-50-1	10	Pentachlorophenol	87-86-5	30
p-Dichlorobenzene	106-46-7	10	Phenol	108-95-2	30
Dichlorodifluoromethane	75-71-8	200	M-Phenylenediamine	108-45-2	5
2,4-Dichlorophenol	120-83-2	3	Phenylmercuric Acetate	62-38-4	0.075
Diethyl Phthalate	84-66-2	800	Phosphine	7803-51-2	0.3
Dimethoate	60-51-5	0.8	Phthalic Anhydride	85-44-9	2000
2,4-Dinitrophenol	51-28-5	2	Potassium Cyanide	151-50-8	50
Dinoseb	88-85-7	0.9	Potassium Silver Cyanide	506-61-6	200
Diphenylamine	122-39-4	20	Pyridine	110-86-1	1
			Selenious Acid	7783-60-8	3
			Selenourea	630-10-4	5
			Silver	7440-22-4	3

Constituent	CAS No.	RAC (ug/m ³)
Silver Cyanide	506-64-9	100
Sodium Cyanide	143-33-9	30
Strychnine	57-24-9	0.3
1,2,4,5-Tetrachlorobenzene	95-94-3	0.3
2,3,4,6-Tetrachlorophenol	58-90-2	30
Tetraethyl Lead	78-00-2	0.0001
Tetrahydrofuran	109-99-9	10
Thallic Oxide	1314-32-5	0.3
Thallium	7440-28-0	0.5
Thallium (I) Acetate	563-68-8	0.5
Thallium (I) Carbonate	6533-73-9	0.3
Thallium (I) Chloride	7791-12-0	0.3
Thallium (I) Nitrate	10102-45-1	0.5
Thallium Selenite	12039-52-0	0.5
Thallium (I) Sulfate	7446-18-6	0.075
Thiram	137-26-8	5
Toluene	108-88-3	300
1,2,4-Trichlorobenzene	120-82-1	20
Trichloromonofluoromethane	75-69-4	300
2,4,5-Trichlorophenol	95-95-4	100
Vanadium Pentoxide	1314-62-1	20
Warfarin	81-81-2	0.3
Xylenes	1330-20-7	80
Zinc Cyanide	557-21-1	50
Zinc Phosphide	1314-84-7	0.3

FOOTNOTE: *The RAC for other appendix VIII Section 261 constituents not listed herein or in appendix V of this part is 0.1 ug/m³.

Appendix V-Risk Specific Doses (10⁻⁵)

Constituent	CAS No.	Unit risk (m3/ug)	RsD (ug/m3)
Acrylamide	79-06-1	1.3E-03	7.7E-03
Acrylonitrile	107-13-1	6.8E-05	1.5E-01
Aldrin	309-00-2	4.9E-03	2.0E-03
Aniline	62-53-3	7.4E-06	1.4E+00
Arsenic	7440-38-2	4.3E-03	2.3E-03
Benz(a)anthracene	56-55-3	8.9E-04	1.1E-02
Benzene	71-43-2	8.3E-06	1.2E+00
Benzidine	92-87-5	6.7E-02	1.5E-04
Benzo(a)pyrene	50-32-8	3.3E-03	3.0E-03
Beryllium	7440-41-7	2.4E-03	4.2E-03
Bis(2-chloroethyl) ether	111-44-4	3.3E-04	3.0E-02
Bis(chloromethyl) ether	542-88-1	6.2E-02	1.6E-04
Bis(2-ethylhexyl)-phtalate	117-81-7	2.4E-07	4.2E+01
1,3-Butadiene	106-99-0	2.8E-04	3.6E-02
Cadmium	7440-43-9	1.8E-03	5.6E-03
Carbon Tetrachloride	56-23-5	1.5E-05	6.7E-01
Chlordane	57-74-9	3.7E-04	2.7E-02
Chloroform	67-66-3	2.3E-05	4.3E-01
Chloromethane	74-87-3	3.6E-06	2.8E+00
Chromium VI	7440-47-3	1.2E-02	8.3E-04
DDT	50-29-3	9.7E-05	1.0E-01
Dibenz(a,h)anthracene	53-70-3	1.4E-02	7.1E-04
1,2-Dibromo-3-chloropropane	96-12-8	6.3E-03	1.6E-03
1,2-Dibromoethane	106-93-4	2.2E-04	4.5E-02
1,1-Dichloroethane	75-34-3	2.6E-05	3.8E-01

Constituent	CAS No.	Unit risk (m3/ug)	RsD (ug/m3)
1,2-Dichloroethane	107-06-2	2.6E-05	3.8E-01
1,1-Dichloroethylene	75-35-4	5.0E-05	2.0E-01
1,3-Dichloropropene	542-75-6	3.5E-01	2.9E-05
Dieldrin	60-57-1	4.6E-03	2.2E-03
Diethylstilbestrol	56-53-1	1.4E-01	7.1E-05
Dimethylnitrosamin	62-75-9	1.4E-02	7.1E-04
2,4-Dinitrotoluene	121-14-2	8.8E-05	1.1E-01
1,2-Diphenylhydrazine	122-66-7	2.2E-04	4.5E-02
1,4-Dioxane	123-91-1	1.4E-06	7.1E+00
Epichlorohydrin	106-89-8	1.2E-06	8.3E+00
Ethylene Oxide	75-21-8	1.0E-04	1.0E-01
Ethylene Dibromide	106-93-4	2.2E-04	4.5E-02
Formaldehyde	50-00-0	1.3E-05	7.7E-01
Heptachlor	76-44-8	1.3E-03	7.7E-03
Heptachlor Epoxide	1024-57-3	2.6E-03	3.8E-03
Hexachlorobenzene	118-74-1	4.9E-04	2.0E-02
Hexachlorobutadiene	87-68-3	2.0E-05	5.0E-01
Alpha-hexachlorocyclohexane	319-84-6	1.8E-03	5.6E-03
Beta-hexachlorocyclohexane	319-85-7	5.3E-04	1.9E-02
Gamma-hexachlorocyclohexane	58-89-9	3.8E-04	2.6E-02
Hexachlorocyclohexane, Technical		5.1E-04	2.0E-02
Hexachlorodibenzop-dioxin(1,2 Mixture)		1.3E+07	.7E-06
Hexachloroethane	67-72-1	4.0E-06	2.5E+00
Hydrazine	302-01-2	2.9E-03	3.4E-03
Hydrazine Sulfate	302-01-2	2.9E-03	3.4E-03
3-Methylcholanthrene	6-49-5	2.7E-03	3.7E-03
Methyl Hydrazine	60-34-4	3.1E-04	3.2E-02
Methylene Chloride	75-09-2	4.1E-06	2.4E+00
4,4'-Methylene-bis-2-chloroaniline	101-14-4	4.7E-05	2.1E-01
Nickel	7440-02-0	2.4E-04	4.2E-02
Nickel Refinery Dust	7440-02-0	2.4E-04	4.2E-02
Nickel Subsulfide	12035-72-2	4.8E-04	2.1E-02
2-Nitropropane	79-46-9	2.7E-02	3.7E-04
N-Nitroso-n-butyl amine	924-16-3	1.6E-03	6.3E-03
N-Nitroso-n-methyl urea	684-93-5	8.6E-02	1.2E-04
N-Nitrosodiethyl amine	55-18-5	4.3E-02	2.3E-04
N-Nitrosopyrrolidine	930-55-2	6.1E-04	1.6E-02
Pentachloronitrobenzene	82-68-8	7.3E-05	1.4E-01
PCBs	1336-36-3	1.2E-03	8.3E-03
Pronamide	23950-58-5	4.6E-06	2.2E+00
Reserpine	50-55-5	3.0E-03	3.3E-03
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	4.5E+01	2.2E-07
1,1,2,2-Tetrachloroethane	79-34-5	5.8E-05	1.7E-01
Tetrachloroethylene	127-18-4	4.8E-07	2.1E+01
Thiourea	62-56-6	5.5E-04	1.8E-02
1,1,2-Trichloroethane	79-00-5	1.6E-05	6.3E-01
Trichloroethylene	79-01-6	1.3E-06	7.7E+00
2,4,6-Trichlorophenol	88-06-2	5.7E-06	1.8E+00
Toxaphene	8001-35-2	3.2E-04	3.1E-02
Vinyl Chloride	75-01-4	7.1E-06	1.4E+00

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Appendix VI-Stack Plume Rise

[Estimated Plume Rise (in Meters) Based on Stack Exit Flow Rate and Gas Temperature]

Exhaust Temperature (K°)

Flow rate (m3/s)	<325	325-349	350-399	400-449	500-599	600-699	700-799	800-999	1000-1499	>1499
<0.5	0	0	0	0	0	0	0	0	0	0
0.5-0.9	0	0	0	0	0	0	0	0	1	1
1.0-1.9	0	0	0	0	1	1	2	3	3	3
2.0-2.9	0	0	1	3	4	4	6	6	7	8
3.0-3.9	0	1	2	5	6	7	9	10	11	12
4.0-4.9	1	2	4	6	8	10	12	13	14	15
5.0-7.4	2	3	5	8	10	12	14	16	17	19
7.5-9.9	3	5	8	12	15	17	20	22	22	23
10.0-12.4	4	6	10	15	19	21	23	24	25	26
12.5-14.9	4	7	12	18	22	23	25	26	27	28
15.0-19.9	5	8	13	20	23	24	26	27	28	29
20.0-24.9	6	10	17	23	25	27	29	30	31	32
25.0-29.9	7	12	20	25	27	29	31	32	33	35
30.0-34.9	8	14	22	26	29	31	33	35	36	37
35.0-39.9	9	16	23	28	30	32	35	36	37	39
40.0-49.9	10	17	24	29	32	34	36	38	39	41
50.0-59.9	12	21	26	31	34	36	39	41	42	44
60.0-69.9	14	22	27	33	36	39	42	43	45	47
70.0-79.9	16	23	29	35	38	41	44	46	47	49
80.0-89.9	17	25	30	36	40	42	46	48	49	51
90.0-99.9	19	26	31	38	42	44	48	50	51	53
100.0-119.9	21	26	32	39	43	46	49	52	53	55
120.0-139.9	22	28	35	42	46	49	52	55	56	59
140.0-159.9	23	30	36	44	48	51	55	58	59	62
160.0-179.9	25	31	38	46	50	54	58	60	62	65
180.0-199.9	26	32	40	48	52	56	60	63	65	67
>199.9	26	33	41	49	54	58	62	65	67	69

Appendix VII-Health-Based Limits for Exclusion of Waste-Derived Residues*

Metals-TCLP Extract Concentration Limits

Constituent	CAS No.	Concentration limits (mg/L)
Antimony	7440-36-0	1xE+00
Arsenic	7440-38-2	5xE+00
Barium	7440-39-3	1xE+02
Beryllium	7440-41-7	7xE-03
Cadmium	7440-43-9	1xE+00
Chromium	7440-47-3	5xE+00
Lead	7439-92-1	5xE+00
Mercury	7439-97-6	2xE-01
Nickel	7440-02-0	7xE+01
Selenium	7782-49-2	1xE+00
Silver	7440-22-4	5xE+00
Thallium	7440-28-0	7XE+00

Nonmetals-Residue Concentration Limits

Constituent	CAS No.	Concentration limits for residues (mg/kg)
Acetonitrile	75-05-8	2xE-01
Acetophenone	98-86-2	4xE+00

Nonmetals-Residue Concentration Limits

Constituent	CAS No.	Concentration limits for residues (mg/kg)
Acrolein	107-02-8	5xE-01
Acrylamide	79-06-1	2xE-04
Acrylonitrile	107-13-1	7xE-04
Aldrin	309-00-2	2xE-05
Allyl alcohol	107-18-6	2xE-01
Aluminum phosphide	20859-73-8	1xE-02
Aniline	62-53-3	6xE-02
Barium cyanide	542-62-1	1xE+00
Benz(a)anthracene	56-55-3	1xE-04
Benzene	71-43-2	5xE-03
Benzidine	92-87-5	1xE-06
Bis(2-chloroethyl) ether	111-44-4	3xE-04
Bis(chloromethyl) ether	542-88-1	2xE-06
Bis(2-ethylhexyl) phthalate	117-81-7	3xE+01
Bromoform	75-25-2	7xE-01
Calcium cyanide	592-01-8	1xE-06
Carbon disulfide	75-15-0	4xE+00
Carbon tetrachloride	56-23-5	5xE-03
Chlordane	57-74-9	3xE-04
Chlorobenzene	108-90-7	1xE+00
Chloroform	67-66-3	6xE-02
Copper cyanide	544-92-3	2xE-01
Cresols (Cresylic acid)	1319-77-3	2xE+00
Cyanogen	460-19-5	1xE+00
DDT	50-29-3	1xE-03

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Nonmetals-Residue Concentration Limits

Constituent	CAS No.	Concentration limits for residues (mg/kg)
Dibenz(a, h)-anthracene	53-70-3	7x E-06
1,2-Dibromo-3-chloropropane	96-12-8	2x E-05
p-Dichlorobenzene	106-46-7	7.5x E-02
Dichlorodifluoromethane	75-71-8	7x E+00
1,1-Dichloroethylene	75-35-4	5x E-03
2,4-Dichlorophenol	120-83-2	1x E-01
1,3-Dichloropropene	542-75-6	1x E-03
Dieldrin	60-57-1	2x E-05
Diethyl phthalate	84-66-2	3x E+01
Diethylstilbesterol	56-53-1	7x E-07
Dimethoate	60-51-5	3x E-02
2,4-Dinitrotoluene	121-14-2	5x E-04
Diphenylamine	122-39-4	9x E-01
1,2-Diphenylhydrazine	122-66-7	5x E-04
Endosulfan	115-29-7	2x E-03
Endrin	72-20-8	2x E-04
Epichlorohydrin	106-89-8	4x E-02
Ethylene dibromide	106-93-4	4x E-07
Ethylene oxide	75-21-8	3x E-04
Fluorine	7782-41-4	4x E+00
Formic acid	64-18-6	7x E+01
Heptachlor	76-44-8	8x E-05
Heptachlor epoxide	1024-57-3	4x E-05
Hexachlorobenzene	118-74-1	2x E-04
Hexachlorobutadiene	87-68-3	5x E-03
Hexachlorocyclopentadiene	77-47-4	2x E-01
Hexachlorodibenzo-p-dioxins	19408-74-3	6x E-08
Hexachloroethane	67-72-1	3x E-02
Hydrazine	302-01-1	1x E-04
Hydrogen cyanide	74-90-8	7x E-05
Hydrogen sulfide	7783-06-4	1x E-06
Isobutyl alcohol	78-83-1	1x E+01
Methomyl	16752-77-5	1x E+00
Methoxychlor	72-43-5	1x E-01
3-Methylcholanthrene	56-49-5	4x E-05
4,4'-Methylenebis (2-chloroaniline)	101-14-4	2x E-03
Methylene chloride	75-09-2	5x E-02
Methyl ethyl ketone (MEK)	78-93-3	2x E+00
Methyl hydrazine	60-34-4	3x E-04
Methyl parathion	298-00-0	2x E-02
Naphthalene	91-20-3	1x E+01
Nickel cyanide	557-19-7	7x E-01
Nitric oxide	10102-43-9	4x E+00
Nitrobenzene	98-95-3	2x E-02
N-Nitrosodi-n-butylamine	924-16-3	6x E-05
N-Nitrosodiethylamine	55-18-5	2x E-06
N-Nitroso-N-methylurea	684-93-5	1x E-07
N-Nitrosopyrrolidine	930-55-2	2x E-04
Pentachlorobenzene	608-93-5	3x E-02
Pentachloronitrobenzene (PCNB)	82-68-8	1x E-01
Pentachlorophenol	87-86-5	1x E+00
Phenol	108-95-2	1x E+00
Phenylmercury acetate	62-38-4	3x E-03
Phosphine	7803-51-2	1x E-02
Polychlorinated biphenyls, N.O.S	1336-36-3	5x E-05
Potassium cyanide	151-50-8	2x E+00
Potassium silver cyanide	506-61-6	7x E+00
Pronamide	23950-58-5	3x E+00
Pyridine	110-86-1	4x E-02
Reserpine	50-55-5	3x E-05
Selenourea	630-10-4	2x E-01
Silver cyanide	506-64-9	4x E+00
Sodium cyanide	143-33-9	1x E+00
Strychnine	57-24-9	1x E-02

1,2,4,5-Tetrachlorobenzene	95-94-3	1x E-02
1,1,2,2-tetrachloroethane	79-34-5	2x E-03
Tetrachloroethylene	127-18-4	7x E-01
2,3,4,6-Tetrachlorophenol	58-90-2	1x E-02
Tetraethyl lead	78-00-2	4x E-06
Thiourea	62-56-6	2x E-04
Toluene	108-88-3	1x E+01
Toxaphene	8001-35-2	5x E-03
1,1,2-Trichloroethane	79-00-5	6x E-03
Trichloroethylene	79-01-6	5x E-03
Trichloromonofluoromethane	75-69-4	1x E+01
2,4,5-Trichlorophenol	95-95-4	4x E+00
2,4,6-Trichlorophenol	88-06-2	4x E+00
Vanadium pentoxide	1314-62-1	7x E-01
Vinyl chloride	75-01-4	2x E-03

*Note: The health-based concentration limits for Appendix VIII, Section 261 constituents for which a health-based concentration is not provided below is 2x E-06 mg/kg.

Appendix VIII-Potential PICs for Determination of Exclusion of Waste-Derived Residues PICs Found in Stack Effluents

Volatiles

Benzene
Toluene
Carbon tetrachloride
Chloroform
Methylene chloride
Trichloroethylene
Tetrachloroethylene
1,1,1-Trichloroethane
Chlorobenzene
cis-1,4-Dichloro-2-butene
Bromochloromethane
Bromodichloromethane
Bromoform
Bromomethane
Methylene bromide
Methyl ethyl ketone

Semivolatiles

Bis(2-ethylhexyl)phthalate
Naphthalene
Phenol
Diethyl phthalate
Butyl benzyl phthalate
2,4-Dimethylphenol
o-Dichlorobenzene
m-Dichlorobenzene
p-Dichlorobenzene
Hexachlorobenzene
2,4,6-Trichlorophenol
Fluoranthene
o-Nitrophenol
1,2,4-Trichlorobenzene
o-Chlorophenol
Pentachlorophenol
Pyrene
Dimethyl phthalate
Mononitrobenzene
2,6-Toluene diisocyanate
Polychlorinated dibenzo-p-dioxins¹
Polychlorinated dibenzo-furans¹

¹ Analyses for polychlorinated dibenzo-p-dioxins and polychlorinated dibenzo-furans are required only for residues collected from areas downstream of the combustion chamber (e.g., ductwork, boiler tubes, heat exchange surfaces, air pollution control devices, etc.).

APPENDIX IX. - METHODS MANUAL FOR COMPLIANCE WITH THE BIF REGULATIONS

This appendix is incorporated by reference from 40 CFR Part 266, Appendix IX. Please refer to this document, or you may obtain a copy of this manual from the ADEQ Hazardous Waste Division, (501) 682-0833 or via the BBS service at (501) 682-0563.

APPENDIX X. - GUIDELINE ON AIR QUALITY MODELS

This appendix has been deleted by a revised Federal ruling at 58 FR 38816, July 20, 1993. Please refer to Appendix W of 40 CFR Part 51 (Guideline on Air Quality Models (Revised) (1986)) and its supplements for detailed in-

formation regarding air modeling for compliance with the requirements of this Section. A copy of this manual may be obtained from the ADEQ Hazardous Waste Division, (501) 682-0833, or via the BBS service at (501) 682-0563.

APPENDIX XI.-LEAD-BEARING MATERIALS THAT MAY BE PROCESSED IN EX-EMPT LEAD SMELTERS

A. Exempt Lead-Bearing Materials When Generated or Originally Produced By Lead-Associated Industries¹

- Acid dump/fill solids
- Sump mud
- Materials from laboratory analyses
- Acid filters
- Baghouse bags
- Clothing (e.g., coveralls, aprons, shoes, hats, gloves)
- Sweepings
- Air filter bags and cartridges
- Respiratory cartridge filters
- Shop abrasives
- Stacking boards
- Waste shipping containers (e.g., cartons, bags, drums, cardboard)
- Paper hand towels
- Wiping rags and sponges
- Contaminated pallets
- Water treatment sludges, filter cakes, residues, and solids
- Emission control dusts, sludges, filter cakes, residues, and solids from lead-associated industries (e.g., K069 and D008 wastes)
- Spent grids, posts, and separators
- Spent batteries
- Lead oxide and lead oxide residues
- Lead plates and groups
- Spent battery cases, covers, and vents
- Pasting belts
- Water filter media
- Cheesecloth from pasting rollers
- Pasting additive bags
- Asphalt paving materials

B. Exempt Lead-Bearing Materials When Generated or Originally Produced By Any Industry

- Charging jumpers and clips
- Platen abrasive
- Fluff from lead wire and cable casings
- Lead-based pigments and compounding pigment dust

1. Lead-associated industries are lead smelters, lead-acid battery manufacturing, and lead chemical manufacturing (e.g., manufacturing of lead oxide or other lead compounds).

APPENDIX XII.-NICKEL OR CHROMIUM-BEARING MATERIALS THAT MAY BE PROCESSED IN EXEMPT NICKEL-CHROMIUM RECOVERY FURNACES

A. Exempt Nickel or Chromium-Bearing Materials when Generated by Manufacturers or Users of Nickel, Chromium, or Iron

- Baghouse bags
- Raney nickel catalyst
- Floor sweepings
- Air filters
- Electroplating bath filters
- Wastewater filter media
- Wood pallets
- Disposable clothing (coveralls, aprons, hats, and gloves)
- Laboratory samples and spent chemicals
- Shipping containers and plastic liners from containers or vehicles used to transport nickel or chromium-containing wastes
- Respirator cartridge filters
- Paper hand towels

B. Exempt Nickel or Chromium-Bearing Materials when Generated by Any Industry

- Electroplating wastewater treatment sludges (F006)
- Nickel and/or chromium-containing solutions
- Nickel, chromium, and iron catalysts
- Nickel-cadmium and nickel-iron batteries
- Filter cake from wet scrubber system water treatment plants in the specialty steel industry
- Filter cake from nickel-chromium alloy pickling operations

Appendix XIII to Section 266 - Mercury Bearing Wastes That May Be Processed in Exempt Mercury Recovery Units

These are exempt mercury-bearing materials with less than 500 ppm of Section 261, appendix VIII organic constituents when generated by manufacturers or users of mercury or mercury products.

1. Activated carbon
2. Decomposer graphite
3. Wood
4. Paper
5. Protective clothing
6. Sweepings
7. Respiratory cartridge filters
8. Cleanup articles
9. Plastic bags and other contaminated containers
10. Laboratory and process control samples
11. K106 and other wastewater treatment plant sludge and filter cake
12. Mercury cell sump and tank sludge
13. Mercury cell process solids
14. Recoverable levels of mercury contained in soil

Section 267—STANDARDS FOR OWNERS AND OPERATORS OF HAZARDOUS WASTE FACILITIES OPERATING UNDER A STANDARDIZED PERMIT

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Subsection A—General

§ 267.1 What are the purpose, scope and applicability of this section?

(a) The purpose of this section is to establish minimum national standards which define the acceptable management of hazardous waste under a Section 270, subsection J standardized permit.

(b) This section applies to owners and operators of facilities who treat or store hazardous waste under a Section 270, subsection J standardized permit, except as provided otherwise in Section 261, subsection A, or Section 264.1(f) and (g) of this Regulation.

§ 267.2 What is the relationship to interim status standards?

If you are a facility owner or operator who has fully complied with the requirements for interim status—as defined in Section 3005(e) of RCRA and Section 270.70 of this Regulation—you must comply with the regulations specified in Section 265 of this Regulation instead of the regulations in this section, until final administrative disposition of the standardized permit application is made, except as provided under Section 264, subsection S.

§ 267.3 How does this section affect an imminent hazard action?

Notwithstanding any other provisions of this section, enforcement actions may be brought pursuant to section 7003 of RCRA.

Subsection B—General Facility Standards

§ 267.10 Does this subsection apply to me?

This subsection applies to you if you own or operate a facility that treats or stores hazardous waste under a Section 270, subsection J standardized permit, except as provided in § 267.1(b) of this Regulation.

§ 267.11 What must I do to comply with this subsection?

To comply with this subsection, you must obtain an EPA identification number, and follow the requirements below for waste analysis, security, inspections, training, special waste handling, and location standards.

§ 267.12 How do I obtain an EPA identification number?

You must apply to the Department for an EPA identification number following the current notification procedures and using forms as provided by the Department. You may obtain these forms by contacting the Department, or from the ADEQ web site at <http://www.adeq.state.ar.us>

§ 267.13 What are my waste analysis requirements?

(a) Before you treat or store any hazardous wastes, you must obtain a detailed chemical and physical analysis of a representative sample of the wastes. At a minimum, the analysis must contain all the information needed to treat or store the waste to comply with this section and Section 268 of this Regulation.

(1) You may include data in the analysis that was developed under Section 261, and published or documented data on the hazardous waste or on hazardous waste generated from similar processes.

(2) You must repeat the analysis as necessary to ensure that it is accurate and up to date. At a minimum, you must repeat the analysis if the process or operation generating the hazardous wastes has changed.

(b) You must develop and follow a written waste analysis plan that describes the procedures you will follow to comply with paragraph (a) of this section. You must keep this plan at the facility. If you receive wastes generated from off-site, and are eligible for a standardized permit, you also must have submitted the waste analysis plan with the Notice of Intent. At a minimum, the plan must specify all of the following:

(1) The hazardous waste parameters that you will analyze and the rationale for selecting these parameters (that is, how analysis for these parameters will provide sufficient information on the waste's properties to comply with paragraph (a) of this section).

(2) The test methods you will use to test for these parameters.

(3) The sampling method you will use to obtain a representative sample of the waste to be analyzed. You may obtain a representative sample using either:

- (i) One of the sampling methods described in appendix I of Section 261; or
- (ii) An equivalent sampling method.

(4) How frequently you will review or repeat the initial analysis of the waste to ensure that the analysis is accurate and up to date.

(5) Where applicable, the methods you will use to meet the additional waste analysis requirements for specific waste management methods as specified in §§ 264.17, 264.1034(d), 264.1063(d), and 264.1083.

§ 267.14 What are my security requirements?

(a) You must prevent, and minimize the possibility for, livestock and unauthorized people from entering the active portion of your facility.

(b) Your facility must have:

(1) A 24-hour surveillance system (for example, television monitoring or surveillance by guards or facility personnel) that continuously monitors and controls entry onto the active portion of the facility; or

(2) An artificial or natural barrier (for example, a fence in good repair or a fence combined with a cliff) that completely surrounds the active portion of the facility; and

(3) A means to control entry, at all times, through the gates or other entrances to the active portion of the facility (for example, an attendant, television monitors, locked entrance, or controlled roadway access to the facility).

(c) You must post a sign at each entrance to the active portion of a facility, and at other prominent locations, in sufficient numbers to be seen from any approach to this active portion. The sign must bear the legend "Danger—Unauthorized Personnel Keep Out." The legend must be in English and in any other language predominant in the area surrounding the facility (for example, facilities in counties bordering the Canadian province of Quebec must post signs in French, and facilities in counties bordering Mexico must post signs in Spanish), and must be legible from a distance of at least 25 feet. You may use existing signs with a legend other than "Danger—Unauthorized Personnel Keep Out" if the legend on the sign indicates that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous.

§ 267.15 What are my general inspection requirements?

(a) You must inspect your facility for malfunctions and deterioration, operator errors, and discharges that may be causing, or may lead to:

(1) Release of hazardous waste constituents to the environment; or

(2) A threat to human health. You must conduct these inspections often enough to identify problems in time to correct them before they result in harm to human health or the environment.

(b) You must develop and follow a written schedule for inspecting, monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting, or responding to environmental or human health hazards.

(1) You must keep this schedule at the facility.

(2) The schedule must identify the equipment and

devices you will inspect and what problems you look for, such as malfunctions or deterioration of equipment (for example, inoperative sump pump, leaking fitting, etc.).

(3) The frequency of your inspections may vary for the items on the schedule. However, the frequency should be based on the rate of deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, malfunction, or any operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use. At a minimum, the inspection schedule must include the items and frequencies required in §§ 267.174, 267.193, 267.195, 267.1103, and §§ 264.1033, 264.1052, 264.1053, 264.1058, and 264.1083 through 264.1089, where applicable.

(c) You must remedy any deterioration or malfunction of equipment or structures that the inspection reveals in time to prevent any environmental or human health hazard. Where a hazard is imminent or has already occurred, you must take remedial action immediately.

(d) You must record all inspections. You must keep these records for at least three years from the date of inspection. At a minimum, you must include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions.

§ 267.16 What training must my employees have?

(a) Your facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of this section. You must ensure that this program includes all the elements described in the documents that are required under paragraph (d)(3) of this section.

(1) A person trained in hazardous waste management procedures must direct this program, and must teach facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to their employment positions.

(2) At a minimum, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by including instruction on emergency procedures, emergency equipment, and emergency systems, including all of the following, where applicable:

(i) Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment

(ii) Key parameters for automatic waste feed cut-off systems.

- (iii) Communications or alarm systems.
- (iv) Response to fires or explosions.
- (v) Response to ground water contamination incidents.
- (vi) Shutdown of operations.

(b) Facility personnel must successfully complete the program required in paragraph (a) of this section within six months after the date of their employment or assignment to a facility, or to a new position at a facility, whichever is later. Employees hired after the effective date of your standardized permit must not work in unsupervised positions until they have completed the training requirements of paragraph (a) of this section.

(c) Facility personnel must take part in an annual review of the initial training required in paragraph (a) of this section.

(d) You must maintain the following documents and records at your facility:

(1) The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;

(2) A written job description for each position listed under paragraph (d)(1) of this section. This description must include the requisite skill, education, or other qualifications, and duties of employees assigned to each position;

(3) A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under paragraph (d)(1) of this section;

(4) Records that document that facility personnel have received and completed the training or job experience required under paragraphs (a), (b), and (c) of this section.

(e) You must keep training records on current personnel until your facility closes. You must keep training records on former employees for at least three years from the date the employee last worked at your facility. Personnel training records may accompany personnel transferred within your company.

(f) *Additionally, you must meet the following requirements:*

(1) No employee may be assigned the duties of transferring, handling, sorting, mixing, treating or disposing of hazardous waste unless that employee meets the requirements set out in § 267.16 (a), (b) and (c) above.

(2) No employee may be assigned the duties of transferring, handling, sorting, mixing, treating or disposing of hazardous waste unless that employee has demonstrated his/her capabilities of:

(i) Reading and comprehending label instructions, operational procedures, contingency plans and regulatory directives;

(ii) Understanding the basic nature of the materials which he/she is assigned to transfer, handle, sort, mix, treat or dispose relative to

the material's reactivity, toxicity, explosiveness and flammability; and

(iii) Operating all equipment which he/she is assigned to operate, including personal safety and emergency equipment.

(3) You must promptly modify the training required of your employees whenever required to do so upon the direction of the Department or whenever modification in training is required as a condition of permit; provided, however, that preliminary training, approved by the Department, shall have been completed prior to commencement of operation of a new hazardous waste management facility or prior to commencement of an operation in an existing facility for which a permit has been issued or modified.

§ 267.17 What are the requirements for managing ignitable, reactive, or incompatible wastes?

(a) You must take precautions to prevent accidental ignition or reaction of ignitable or reactive waste by following these requirements:

(1) You must separate these wastes and protect them from sources of ignition or reaction such as: open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (for example, from heat-producing chemical reactions), and radiant heat.

(2) While ignitable or reactive waste is being handled, you must confine smoking and open flames to specially designated locations.

(3) "No Smoking" signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

(b) If you treat or store ignitable or reactive waste, or mix incompatible waste or incompatible wastes and other materials, you must take precautions to prevent reactions that:

(1) Generate extreme heat or pressure, fire or explosions, or violent reactions.

(2) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health or the environment.

(3) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions.

(4) Damage the structural integrity of the device or facility.

(5) Threaten human health or the environment in any similar way.

(c) You must document compliance with paragraph (a) or (b) of this section. You may base this documentation on references to published scientific or engineering literature, data from trial tests (for example bench scale or pilot scale

tests), waste analyses (as specified in § 267.13), or the results of the treatment of similar wastes by similar treatment processes and under similar operating conditions.

§ 267.18 What are the standards for selecting the location of my facility?

(a) You may not locate portions of new facilities where hazardous waste will be treated or stored within 61 meters (200 feet) of a fault that has had displacement in Holocene time.

(1) “Fault” means a fracture along which rocks on one side have been displaced with respect to those on the other side.

(2) “Displacement” means the relative movement of any two sides of a fault measured in any direction.

(3) “Holocene” means the most recent epoch of the Quaternary period, extending from the end of the Pleistocene to the present.

Note to paragraph (a)(3): Procedures for demonstrating compliance with this standard are specified in Section 270.14(b)(11) of this Regulation. Facilities which are located in political jurisdictions other than those listed in appendix VI to Section 264, are assumed to be in compliance with this requirement.

(b) If your facility is located in a 100-year flood plain, it must be designed, constructed, operated, and maintained to prevent washout of any hazardous waste by a 100-year flood.

(1) “100-year flood plain” means any land area that is subject to a one percent or greater chance of flooding in any given year from any source.

(2) “Washout” means the movement of hazardous waste from the active portion of the facility as a result of flooding.

(3) “100-year flood” means a flood that has a one percent chance of being equaled or exceeded in any given year.

Subsection C—Preparedness and Prevention

§ 267.30 Does this subsection apply to me?

This subsection applies to you if you own or operate a facility that treats or stores hazardous waste under a Section 270, subsection J standardized permit, except as provided in § 267.1(b).

§ 267.31 What are the general design and operation standards?

You must design, construct, maintain, and operate your facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water that could threaten human health or the environment.

§ 267.32 What equipment am I required to have?

Your facility must be equipped with all of the following, unless none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:

(a) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel.

(b) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams.

(c) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment.

(d) Water at adequate volume and pressure to supply water hose streams, or foam-producing equipment, or automatic sprinklers, or water spray systems.

§ 267.33 What are the testing and maintenance requirements for the equipment?

You must test and maintain all required facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, as necessary, to assure its proper operation in time of emergency.

§ 267.34 When must personnel have access to communication equipment or an alarm system?

(a) Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless the device is not required under § 267.32.

(b) If just one employee is on the premises while the facility is operating, that person must have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, unless not required under § 267.32.

§ 267.35 How do I ensure access for personnel and equipment during emergencies?

You must maintain enough aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, as appropriate, considering the type of waste being stored or treated.

§ 267.36 What arrangements must I make with local authorities for emergencies?

(a) You must attempt to make the following arrangements, as appropriate, for the type of waste handled at your facility and the potential need for the services of these organizations:

(1) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes.

(2) Agreements designating primary emergency authority to a specific police and a specific fire department where more than one police and fire department might respond to an emergency, and agreements with any others to provide support to the primary emergency authority.

(3) Agreements with State emergency response teams, emergency response contractors, and equipment suppliers.

(4) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses that could result from fires, explosions, or releases at the facility.

(b) If State or local authorities decline to enter into such arrangements, you must document the refusal in the operating record.

Subsection D—Contingency Plan and Emergency Procedures

§ 267.50 Does this subsection apply to me?

This subsection applies to you if you own or operate a facility that treats or stores hazardous waste under a Section 270, subsection J standardized permit, except as provided in § 267.1(b).

§ 267.51 What is the purpose of the contingency plan and how do I use it?

(a) You must have a contingency plan for your facility. You must design the plan to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

(b) You must implement the provisions of the plan immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.

§ 267.52 What must be in the contingency plan?

(a) Your contingency plan must:

(1) Describe the actions facility personnel will take to comply with §§ 267.51 and 267.56 in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

(2) Describe all arrangements agreed upon under § 267.36 by local police departments, fire departments, hospitals, contractors, and state and local emergency response teams to coordinate emergency services.

(3) List names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see § 267.55), and you must keep the list up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates.

(4) Include a current list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. In addition, you must include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(5) Include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. You must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).

(b) If you have already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan under 40 CFR part 112, or some other emergency or contingency plan, you need only amend that plan to incorporate hazardous waste management provisions that will comply with the requirements of this section.

§ 267.53 Who must have copies of the contingency plan?

(a) You must maintain a copy of the plan with all revisions at the facility; and

(b) You must submit a copy with all revisions to all local police departments, fire departments, hospitals, and state and local emergency response teams that may be called upon to provide emergency services.

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§ 267.54 When must I amend the contingency plan?

You must review, and immediately amend the contingency plan, if necessary, whenever:

- (a) The facility permit is revised.
- (b) The plan fails in an emergency.
- (c) You change the facility (in its design, construction, operation, maintenance, or other circumstances) in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency.
- (d) You change the list of emergency coordinators.
- (e) You change the list of emergency equipment.

§ 267.55 What is the role of the emergency coordinator?

At least one employee must be either on the facility premises or on call at all times (that is, available to respond to an emergency by reaching the facility within a short period of time) who has the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan.

§ 267.56 What are the required emergency procedures for the emergency coordinator?

- (a) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately:
 - (1) Activate internal facility alarm or communication systems, where applicable, to notify all facility personnel, and
 - (2) Notify appropriate State or local agencies with designated response roles if their help is needed.
- (b) Whenever there is a release, fire, or explosion, the emergency coordinator must:
 - (1) Immediately identify the character, exact source, amount, and areal extent of any released materials. He may do this by observation or review of facility records or manifests, and, if necessary, by chemical analysis.
 - (2) Assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion. For example, the assessment would consider the effects of any toxic, irritating, or as-

phyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions.

(c) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, he must report his findings as follows:

(1) If his assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate officials decide whether local areas should be evacuated; and

(2) He must immediately notify either the government official designated as the on-scene coordinator for that geographical area, or the National Response Center (using their 24-hour toll-free number 800/ 424-8802). The report must include:

- (i) Name and telephone number of the reporter.
- (ii) Name and address of facility.
- (iii) Time and type of incident (for example, a release or a fire).
- (iv) Name and quantity of material(s) involved, to the extent known.
- (v) The extent of injuries, if any.
- (vi) The possible hazards to human health or the environment outside the facility.

(d) During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing release waste, and removing or isolating containers.

(e) If the facility stops operations in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, when appropriate.

§ 267.57 What must the emergency coordinator do after an emergency?

(a) Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

(b) The emergency coordinator must ensure that, in the affected area(s) of the facility:

(1) No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed.

(2) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

§ 267.58 What notification and recordkeeping must I do after an emergency?

(a) You must notify the Director, and other appropriate State and local authorities, that the facility is in compliance with § 267.57(b) before operations are resumed in the affected area(s) of the facility.

(b) You must note the time, date, and details of any incident that requires implementing the contingency plan in the operating record. Within 15 days after the incident, you must submit a written report on the incident to the Director. You must include the following in the report:

- (1) The name, address, and telephone number of the owner or operator.
- (2) The name, address, and telephone number of the facility.
- (3) The date, time, and type of incident (e.g., fire, explosion).
- (4) The name and quantity of material(s) involved.
- (5) The extent of injuries, if any.
- (6) An assessment of actual or potential hazards to human health or the environment, where this is applicable.
- (7) The estimated quantity and disposition of recovered material that resulted from the incident.

Subsection E—Recordkeeping, Reporting, and Notifying

§ 267.70 Does this subsection apply to me?

This subsection applies to you if you own or operate a facility that stores or non-thermally treats a hazardous waste under a Section 270, subsection J standardized permit, except as provided in § 267.1(b). In addition, you must comply with the manifest requirements of Section 262 of this Regulation whenever a shipment of hazardous waste is initiated from your facility.

§ 267.71 Use of the manifest system.

(a) If a facility receives hazardous waste accompanied by a manifest, the owner or operator, or his agent, must:

- (1) Sign and date each copy of the manifest to certify that the hazardous waste covered by the manifest was received;
- (2) Note any significant discrepancies in the manifest (as defined in § 267.72(a)) on each copy of the manifest;
- (3) Immediately give the transporter at least one copy of the signed manifest;
- (4) Within 30 days after the delivery, send a copy of the manifest to the generator; and
- (5) Retain at the facility a copy of each manifest

for at least three years from the date of delivery.

(b) If a facility receives, from a rail or water (bulk shipment) transporter, hazardous waste which is accompanied by a shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, generator's certification, and signatures), the owner or operator, or his agent, must:

(1) Sign and date each copy of the manifest or shipping paper (if the manifest has not been received) to certify that the hazardous waste covered by the manifest or shipping paper was received;

(2) Note any significant discrepancies (as defined in § 267.72(a)) in the manifest or shipping paper (if the manifest has not been received) on each copy of the manifest or shipping paper. Note that the Commission does not intend that the owner or operator of a facility whose procedures under § 267.13(c) include waste analysis must perform that analysis before signing the shipping paper and giving it to the transporter. Section 267.72(b), however, requires reporting an unreconciled discrepancy discovered during later analysis.

(3) Immediately give the rail or water (bulk shipment) transporter at least one copy of the manifest or shipping paper (if the manifest has not been received);

(4) Within 30 days after the delivery, send a copy of the signed and dated manifest to the generator; however, if the manifest has not been received within 30 days after delivery, the owner or operator, or his agent, must send a copy of the shipping paper signed and dated to the generator. Note that § 262.23(c) of this Regulation requires the generator to send three copies of the manifest to the facility when hazardous waste is sent by rail or water (bulk shipment); and

(5) Retain at the facility a copy of the manifest and shipping paper (if signed in lieu of the manifest at the time of delivery) for at least three years from the date of delivery.

(c) Whenever a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility must comply with the requirements of section 262 of this Regulation. The Commission notes that the provisions of § 262.34 are applicable to the on-site accumulation of hazardous wastes by generators. Therefore, the provisions of § 262.34 only apply to owners or operators who are shipping hazardous waste which they generated at that facility.

(d) Within three working days of the receipt of a shipment subject to Section 262, subsection H, the owner or operator of the facility must provide a copy of the tracking document bearing all required signatures to the notifier, to the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460, and to competent authorities of all other concerned countries.

The original copy of the tracking document must be maintained at the facility for at least three years from the date of signature.

§ 267.72 Manifest discrepancies.

(a) Manifest discrepancies are differences between the quantity or type of hazardous waste designated on the manifest or shipping paper, and the quantity or type of hazardous waste a facility actually receives. Significant discrepancies in quantity are:

- (1) For bulk waste, variations greater than 10 percent in weight; and
- (2) For batch waste, any variation in piece count, such as a discrepancy of one drum in a truckload. Significant discrepancies in type are obvious differences which can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or toxic constituents not reported on the manifest or shipping paper.

(b) Upon discovering a significant discrepancy, the owner or operator must attempt to reconcile the discrepancy with the waste generator or transporter (e.g., with telephone conversations). If the discrepancy is not resolved within 15 days after receiving the waste, the owner or operator must immediately submit to the Director a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue.

§ 267.73 What information must I keep?

(a) You must keep a written operating record at your facility.

(b) You must record the following information, as it becomes available, and maintain the operating record until you close the facility:

- (1) A description and the quantity of each type of hazardous waste generated, and the method(s) and date(s) of its storage and/or treatment at the facility as required by Appendix I of Section 264;
- (2) The location of each hazardous waste within the facility and the quantity at each location;
- (3) Records and results of waste analyses and waste determinations you perform as specified in §§ 267.13, 267.17, and Sections 264.1034, 264.1063, 264.1083, and 268.7;
- (4) Summary reports and details of all incidents that require you to implement the contingency plan as specified in § 267.58(b));
- (5) Records and results of inspections as required by § 267.15(d) (except you need to keep these data for only three years);
- (6) Monitoring, testing or analytical data, and corrective action when required by subsection F of this section and §§ 267.191, 267.193, 267.195, and

Sections 264.1034(c) through 264.1034(f), 264.1035, 264.1063(d) through 264.1063(i), 264.1064, 264.1088, 264.1089, and 264.1090;

(7) All closure cost estimates under § 267.142;

(8) Your certification, at least annually, that you have a program in place to reduce the volume and toxicity of hazardous waste that you generate to the degree that you determine to be economically practicable; and that the proposed method of treatment or storage is that practicable method currently available to you that minimizes the present and future threat to human health and the environment;

(9) For an on-site treatment facility, the information contained in the notice (except the manifest number), and the certification and demonstration, if applicable, required by you under Section 268.7 of this Regulation; and

(10) For an on-site storage facility, the information in the notice (except the manifest number), and the certification and demonstration, if applicable, required by you under § 268.7.

(11) For an off-site treatment facility, a copy of the notice, and the certification and demonstration, if applicable, required by the generator or the owner or operator under § 268.7 or § 268.8;

(12) For an off-site storage facility, a copy of the notice, and the certification and demonstration, if applicable, required by the generator or the owner or operator under § 268.7 or § 268.8.

§ 267.74 Who sees the records?

(a) You must furnish all records, including plans, required under this section upon the request of any officer, employee, or representative of ADEQ who is duly designated by the Director, and make them available at all reasonable times for inspection.

(b) The retention period for all records required under this section is extended automatically during the course of any unresolved enforcement action involving the facility or as requested by the Director.

§ 267.75 What reports must I prepare and to whom do I send them?

You must prepare an annual report and other reports listed in paragraph (b) of this section.

(a) Annual report. You must prepare and submit a single copy of an annual report to the Director by March 1 of each year. The annual report must be submitted on forms as provided by the Department. The report must cover facility activities during the previous calendar year and must include:

- (1) The EPA identification number, name, and address of the facility;
- (2) The calendar year covered by the report;

- (3) The method of treatment or storage for each hazardous waste;
- (4) The most recent closure cost estimate under § 267.142;
- (5) A description of the efforts undertaken during the year to reduce the volume and toxicity of generated waste.
- (6) A description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for the years prior to 1984.
- (7) The certification signed by you.

(b) Additional reports. In addition to submitting the biennial reports, you must also report to the Director:

- (1) Releases, fires, and explosions as specified in § 267.58(b);
- (2) Facility closures specified in § 267.117; and
- (3) As otherwise required by subsections I, J, and DD of this section and Section 264, subsections AA, BB, CC.

(c) For off-site facilities, the EPA identification number of each hazardous waste generator from which the facility received a hazardous waste during the year; for imported shipments, the report must give the name and address of the foreign generator;

(d) A description and the quantity of each hazardous waste the facility received during the year. For off-site facilities, this information must be listed by EPA identification number of each generator.

§ 267.76 What notifications must I make?

Before transferring ownership or operation of a facility during its operating life, you must notify the new owner or operator in writing of the requirements of this section and Section 270, subsection J.

Subsection F—Releases from Solid Waste Management Units

§ 267.90 Who must comply with this section?

This subsection applies to you if you own or operate a facility that treats or stores hazardous waste under a Section 270, subsection J standardized permit, except as provided in § 267.1(b), or unless your facility already has a permit that imposes requirements for corrective action under Section 264.101 of this Regulation.

§ 267.91–267.100 [Reserved]

§ 267.101 What must I do to address corrective action for solid waste management units?

(a) You must institute corrective action as necessary to protect human health and the environment for all releases of hazardous waste or constituents from any solid waste management unit at the facility, regardless of the time at which waste was placed in such unit.

(b) The Director will specify corrective action in the supplemental portion of your standardized permit in accordance with this section and Section 264, subsection S of this Regulation. The Director will include in the supplemental portion of your standardized permit schedules of compliance for corrective action (where corrective action cannot be completed prior to issuance of the permit) and assurances of financial responsibility for completing corrective action.

(c) You must implement corrective action beyond the facility property boundary, where necessary to protect human health and the environment, unless you demonstrate to the satisfaction of the Director that, despite your best efforts, you were unable to obtain the necessary permission to undertake such actions. You are not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis. You must provide assurances of financial responsibility for such corrective action.

(d) You do not have to comply with this section if you are the owner or operator of a remediation waste site unless your site is part of a facility that is subject to a permit for treating, storing, or disposing of hazardous wastes that are not remediation wastes.

Subsection G—Closure

§ 267.110 Does this subsection apply to me?

This subsection applies to you if you own or operate a facility that treats or stores hazardous waste under a Section 270, subsection J standardized permit, except as provided in § 267.1(b).

§ 267.111 What general standards must I meet when I stop operating the unit?

You must close the storage and treatment units in a manner that:

- (a) Minimizes the need for further maintenance; and
- (b) Controls, minimizes, or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere; and

(c) Meets the closure requirements of this subsection and the requirements of §§ 267.176, 267.201, and 267.1108. If you determine that, when applicable, the closure requirements of § 267.201(tanks) or § 267.1108 (containment build-

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ings) cannot be met, then you must close the unit in accordance with the requirements that apply to landfills (§ 264.310). In addition, for the purposes of post-closure and financial responsibility, such a tank system or containment building is then considered to be a landfill, and you must apply for a post-closure care permit in accordance with Section 270 of this Regulation.

§ 267.112 What procedures must I follow?

(a) To close a facility, you must follow your approved closure plan, and follow notification requirements.

(1) Your closure plan must be submitted at the time you submitted your Notice of Intent to operate under a standardized permit. Final issuance of the standardized permit constitutes approval of the closure plan, and the plan becomes a condition of the RCRA standardized permit.

(2) The Director's approval of the plan must ensure that the approved plan is consistent with §§ 267.111 through 267.115, 267.176, 267.201, and 267.1108.

(b) Satisfy the requirements for content of closure plan. The closure plan must identify steps necessary to perform partial and/or final closure of the facility. The closure plan must include, at least:

(1) A description of how each hazardous waste management unit at the facility subject to this subsection will be closed following § 267.111.

(2) A description of how final closure of the facility will be conducted in accordance with § 267.111. The description must identify the maximum extent of the operations which will be unclosed during the active life of the facility.

(3) An estimate of the maximum inventory of hazardous wastes ever on site during the active life of the facility and a detailed description of the methods you will use during partial and /or final closure, such as methods for removing, transporting, treating, storing, or disposing of all hazardous wastes, and identification of the type(s) of off-site hazardous waste management units to be used, if applicable.

(4) A detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated containment system components, equipment, structures, and soils during partial or final closure. These might include procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination required to satisfy the closure performance standard;

(5) A detailed description of other activities necessary during the closure period to ensure that partial or final closure satisfies the closure performance

standards.

(6) A schedule for closure of each hazardous waste management unit, and for final closure of the facility. The schedule must include, at a minimum, the total time required to close each hazardous waste management unit and the time required for intervening closure activities that allow tracking of progress of partial or final closure.

(7) For facilities that use trust funds to establish financial assurance under § 267.143 and that are expected to close prior to the expiration of the permit, an estimate of the expected year of final closure.

(c) You may submit a written notification to the Director for a permit modification to amend the closure plan at any time prior to the notification of partial or final closure of the facility, following the applicable procedures in 40 CFR 124.211.

(1) Events leading to a change in the closure plan, and therefore requiring a modification, may include:

(i) A change in the operating plan or facility design;

(ii) A change in the expected year of closure, if applicable; or

(iii) In conducting partial or final closure activities, an unexpected event requiring a modification of the approved closure plan.

(2) The written notification or request must include a copy of the amended closure plan for review or approval by the Director. The Director will approve, disapprove, or modify this amended plan in accordance with the procedures in 40 CFR 124.211, 270.320 of this Regulation, and Regulation No. 8.

(d) Notification before final closure.

(1) You must notify the Director in writing at least 45 days before the date that you expect to begin final closure of a treatment or storage tank, container storage area, or containment building.

(2) The date when you "expect to begin closure" must be no later than 30 days after the date that any hazardous waste management unit receives the known final volume of hazardous wastes.

(3) If your facility's permit is terminated, or if you are otherwise ordered, by judicial decree or final order under section 3008 of RCRA, to cease receiving hazardous wastes or to close, then the requirements of this paragraph (d) do not apply. However, you must close the facility following the deadlines established in § 267.115.

§ 267.113 Will the public have the opportunity to comment on the plan?

(a) The Director will provide you and the public, when the draft standardized permit is public noticed, the opportu-

nity to submit written comments on the plan and to the draft permit as allowed by Regulation No. 8. The Director will also, in response to a request or at his/her own discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning the closure plan, and the permit.

(b) The Director will give public notice of the hearing 30 days before it occurs. Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments, and the two notices may be combined.

§ 267.114 [Reserved]

§ 267.115 After I stop operating, how long until I must close?

(a) Within 90 days after the final volume of hazardous waste is sent to a unit, you must treat or remove from the unit all hazardous wastes following the approved closure plan.

(b) You must complete final closure activities in accordance with the approved closure plan within 180 days after the final volume of hazardous wastes is sent to the unit. The Director may approve an extension of 180 days to the closure period if you comply with all applicable requirements for requesting a modification to the permit and demonstrate that:

(1) The final closure activities will take longer than 180 days to complete due to circumstances beyond your control, excluding ground water contamination; and

(2) You have taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed, but not operating hazardous waste management unit or facility, including compliance with all applicable permit requirements.

(3) The demonstration must be made at least 30 days prior to the expiration of the initial 180-day period.

(c) Nothing in this section precludes you from removing hazardous wastes and decontaminating or dismantling equipment in accordance with the approved final closure plan at any time before or after notification of final closure.

§ 267.116 What must I do with contaminated equipment, structure, and soils?

You must properly dispose of or decontaminate all contaminated equipment, structures, and soils during the partial and final closure periods. By removing any hazardous wastes or hazardous constituents during partial and final closure, you may become a generator of hazardous waste and must handle that waste following all applicable requirements of Section 262 of this Regulation.

§ 267.117 How do I certify closure?

Within 60 days of the completion of final closure of each unit under a Section 270 subsection J standardized permit, you must submit to the Director, by registered mail, a certification that each hazardous waste management unit or facility, as applicable, has been closed following the specifications in the closure plan. Both you and an independent qualified Arkansas-registered professional engineer must sign the certification. You must furnish documentation supporting the independent registered professional engineer's certification to the Director upon request until he releases you from the financial assurance requirements for closure under § 267.143(i).

Subsection H—Financial Requirements

§ 267.140 Who must comply with this subsection, and briefly, what do they have to do?

(a) The regulations in this subsection apply to owners and operators who treat or store hazardous waste under a standardized permit, except as provided in § 267.1(b), or § 267.140(d) below.

(b) The owner or operator must:

(1) Prepare a closure cost estimate as required in § 267.142;

(2) Demonstrate financial assurance for closure as required in § 267.143; and

(3) Demonstrate financial assurance for liability as required in § 267.147.

(c) The owner or operator must notify the Director if the owner or operator is named as a debtor in a bankruptcy proceeding under Title 11 (Bankruptcy), U.S. Code (See also § 267.148).

(d) States and the Federal government are exempt from the requirements of this subsection.

§ 267.141 Definitions of terms as used in this subsection.

(a) Closure plan means the plan for closure prepared in accordance with the requirements of § 267.112.

(b) Current closure cost estimate means the most recent of the estimates prepared in accordance with § 267.142 (a), (b), and (c).

(c) [Reserved]

(d) Parent corporation means a corporation which directly owns at least 50 percent of the voting stock of the corporation which is the facility owner or operator; the latter corporation is deemed a "subsidiary" of the parent corporation.

(e) [Reserved]

(f) The following terms are used in the specifications for the financial tests for closure and liability coverage. The

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definitions are intended to assist in the understanding of these regulations and are not intended to limit the meanings of terms in a way that conflicts with generally accepted accounting practices:

“Assets” means all existing and all probable future economic benefits obtained or controlled by a particular entity.

“Current plugging and abandonment cost estimate” means the most recent of the estimates prepared in accordance with 40 CFR 144.62(a), (b), and (c).

“Independently audited” refers to an audit performed by an independent certified public accountant in accordance with generally accepted auditing standards.

“Liabilities” means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.

“Tangible net worth” means the tangible assets that remain after deducting liabilities; such assets would not include intangibles such as goodwill and rights to patents or royalties.

(g) In the liability insurance requirements, the terms bodily injury and property damage shall have the meanings given these terms by applicable State law. However, these terms do not include those liabilities which, consistent with standard industry practices, are excluded from coverage in liability policies for bodily injury and property damage. The Commission intends the meanings of other terms used in the liability insurance requirements to be consistent with their common meanings within the insurance industry. The definitions given below of several of the terms are intended to assist in the understanding of these regulations and are not intended to limit their meanings in a way that conflicts with general insurance industry usage.

“Accidental occurrence” means an accident, including continuous or repeated exposure to conditions, which results in bodily injury or property damage neither expected nor intended from the standpoint of the insured.

“Legal defense costs” means any expenses that an insurer incurs in defending against claims of third parties brought under the terms and conditions of an insurance policy.

“Sudden accidental occurrence” means an occurrence which is not continuous or repeated in nature.

(h) “Substantial business relationship” means the extent of a business relationship necessary under applicable State law to make a guarantee contract issued incident to that relationship valid and enforceable. A “substantial business relationship” must arise from a pattern of recent or ongoing business transactions, in addition to the guarantee it-

self, such that a currently existing business relationship between the guarantor and the owner or operator is demonstrated to the satisfaction of the Director.

§ 267.142 Cost estimate for closure.

(a) The owner or operator must have at the facility a detailed written estimate, in current dollars, of the cost of closing the facility in accordance with the requirements in §§ 267.111 through 267.115 and applicable closure requirements in §§ 267.176, 267.201, 267.1108.

(1) The estimate must equal the cost of final closure at the point in the facility’s active life when the extent and manner of its operation would make closure the most expensive, as indicated by the closure plan (see § 267.112(b)); and

(2) The closure cost estimate must be based on the costs to the owner or operator of hiring a third party to close the facility. A third party is a party who is neither a parent nor a subsidiary of the owner or operator. (See definition of parent corporation in § 267.141(d).) The owner or operator may use costs for onsite disposal if he can demonstrate that onsite disposal capacity will exist at all times over the life of the facility.

(3) The closure cost estimate may not incorporate any salvage value that may be realized with the sale of hazardous wastes, or non-hazardous wastes, facility structures or equipment, land, or other assets associated with the facility at the time of partial or final closure.

(4) The owner or operator may not incorporate a zero cost for hazardous wastes, or non-hazardous wastes that might have economic value.

(b) During the active life of the facility, the owner or operator must adjust the closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with § 267.143. For owners and operators using the financial test or corporate guarantee, the closure cost estimate must be updated for inflation within 30 days after the close of the firm’s fiscal year and before submission of updated information to the Director as specified in § 267.143(f)(2)(iii). The adjustment may be made by recalculating the maximum costs of closure in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross Domestic Product published by the U.S. Department of Commerce in its Survey of Current Business, as specified in paragraphs (b)(1) and (2) of this section. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

(1) The first adjustment is made by multiplying the closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate.

(2) Subsequent adjustments are made by multiplying the latest adjusted closure cost estimate by

the latest inflation factor.

(c) During the active life of the facility, the owner or operator must revise the closure cost estimate no later than 30 days after the Director has approved the request to modify the closure plan, if the change in the closure plan increases the cost of closure. The revised closure cost estimate must be adjusted for inflation as specified in § 267.142(b).

(d) The owner or operator must keep the following at the facility during the operating life of the facility: The latest closure cost estimate prepared in accordance with paragraphs (a) and (c) of this section and, when this estimate has been adjusted in accordance with paragraph (b) of this section, the latest adjusted closure cost estimate.

§ 267.143 Financial assurance for closure.

The owner or operator must establish financial assurance for closure of each storage or treatment unit that he owns or operates. In establishing financial assurance for closure, the owner or operator must choose from the financial assurance mechanisms in paragraphs (a), (b), (c), (d), (e), (f), and (g) of this section. The owner or operator can also use a combination of mechanisms for a single facility if they meet the requirement in paragraph (h) of this section, or may use a single mechanism for multiple facilities as in paragraph (i) of this section. The Director will release the owner or operator from the requirements of this section after the owner or operator meets the criteria under paragraph (j) of this section.

(a) Closure Trust Fund. Owners and operators can use the “closure trust fund,” that is specified in Sections 264.143(a)(1) and (2), and 264.143(a)(6)–(11) of this Regulation. For purposes of this paragraph, the following provisions also apply:

(1) Payments into the trust fund for a new facility must be made annually by the owner or operator over the remaining operating life of the facility as estimated in the closure plan, or over 3 years, whichever period is shorter. This period of time is hereafter referred to as the “pay-in period.”

(2) For a new facility, the first payment into the closure trust fund must be made before the facility may accept the initial storage. A receipt from the trustee must be submitted by the owner or operator to the Director before this initial storage of waste. The first payment must be at least equal to the current closure cost estimate, divided by the number of years in the pay-in period, except as provided in paragraph (h) of this section for multiple mechanisms. Subsequent payments must be made no later than 30 days after each anniversary date of the first payment. The owner or operator determines the amount of each subsequent payment by subtracting the current value of the trust fund from the current closure cost estimate, and dividing this difference by the number of years remaining in the pay-in pe-

riod. Mathematically, the formula is $\text{Next Payment} = (\text{Current Closure Estimate} - \text{Current Value of the Trust Fund}) / \text{Years Remaining in the Pay-In Period}$.

(3) The owner or operator of a facility existing on the effective date of this paragraph can establish a trust fund to meet this paragraph’s financial assurance requirements. If the value of the trust fund is less than the current closure cost estimate when a final approval of the permit is granted for the facility, the owner or operator must pay the difference into the trust fund within 60 days.

(4) The owner or operator may accelerate payments into the trust fund or deposit the full amount of the closure cost estimate when establishing the trust fund. However, he must maintain the value of the fund at no less than the value that the fund would have if annual payments were made as specified in paragraph (a)(2) or (a)(3) of this section.

(5) The owner or operator must submit a trust agreement with the wording specified in § 264.151(a)(1).

(b) Surety Bond Guaranteeing Payment into a Closure Trust Fund. Owners and operators can use the “surety bond guaranteeing payment into a closure trust fund,” as specified in § 264.143(b) of this Regulation, including the use of the surety bond instrument specified at § 264.151(b), and the standby trust specified at § 264.143(b)(3).

(c) Surety Bond Guaranteeing Performance of Closure. Owners and operators can use the “surety bond guaranteeing performance of closure,” as specified in § 264.143(c), the submission and use of the surety bond instrument specified at § 264.151(c), and the standby trust specified at § 264.143(c)(3).

(d) Closure Letter of Credit. Owners and operators can use the “closure letter of credit” specified in § 264.143(d), the submission and use of the irrevocable letter of credit instrument specified in § 264.151(d), and the standby trust specified in § 264.143(d)(3).

(e) Closure Insurance. Owners and operators can use “closure insurance,” as specified in § 264.143(e), utilizing the certificate of insurance for closure specified at § 264.151(e).

(f) Corporate financial test. An owner or operator that satisfies the requirements of this paragraph may demonstrate financial assurance up to the amount specified in this paragraph:

(1) Financial component.

(i) The owner or operator must satisfy one of the following three conditions:

(A) A current rating for its senior unsecured debt of AAA, AA, A, or BBB as issued by Standard and Poor’s or Aaa, Aa, A or Baa as issued by Moody’s; or

(B) A ratio of less than 1.5 comparing total liabilities to net worth; or

(C) A ratio of greater than 0.10 compar-

ing the sum of net income plus depreciation, depletion and amortization, minus \$10 million, to total liabilities.

(ii) The tangible net worth of the owner or operator must be greater than:

(A) The sum of the current environmental obligations (see paragraph (f)(2)(i)(A)(1) of this section), including guarantees, covered by a financial test plus \$10 million, except as provided in paragraph (f)(1)(ii)(B) of this section.

(B) \$10 million in tangible net worth plus the amount of any guarantees that have not been recognized as liabilities on the financial statements provided all of the environmental obligations (see paragraph (f)(2)(i)(A)(1) of this section) covered by a financial test are recognized as liabilities on the owner's or operator's audited financial statements, and subject to the approval of the Director.

(iii) The owner or operator must have assets located in the United States amounting to at least the sum of environmental obligations covered by a financial test as described in paragraph (f)(2)(i)(A)(1) of this section.

(2) Recordkeeping and reporting requirements.

(i) The owner or operator must submit the following items to the Director:

(A) A letter signed by the owner's or operator's chief financial officer that:

(1) Lists all the applicable current types, amounts, and sums of environmental obligations covered by a financial test. These obligations include both obligations in the programs which EPA directly operates and obligations where EPA has delegated authority to a State or approved a State's program. These obligations include, but are not limited to:

(i) Liability, closure, post-closure and corrective action cost estimates required for hazardous waste treatment, storage, and disposal facilities under §§ 264.101, 264.142, 264.144, 264.147, 265.142, 265.144, and 265.147 of this Regulation;

(ii) Cost estimates required for municipal solid waste management facilities under 40 CFR 258.71, 258.72, and 258.73;

(iii) Current plugging cost estimates required for UIC facilities under 40 CFR 144.62;

(iv) Cost estimates required for petroleum underground storage tank facilities under 40 CFR 280.93;

(v) Cost estimates required for PCB storage facilities under 40 CFR 761.65;

(vi) Any financial assurance required under, or as part of an action undertaken under, the Comprehensive Environmental Response, Compensation, and Liability Act; and

(vii) Any other environmental obligations that are assured through a financial test.

(2) Provides evidence demonstrating that the firm meets the conditions of either paragraph (f)(1)(i)(A) or (f)(1)(i)(B) or (f)(1)(i)(C) of this section and paragraphs (f)(1)(ii) and (f)(1)(iii) of this section.

(B) A copy of the independent certified public accountant's unqualified opinion of the owner's or operator's financial statements for the latest completed fiscal year. To be eligible to use the financial test, the owner's or operator's financial statements must receive an unqualified opinion from the independent certified public accountant. An adverse opinion, disclaimer of opinion, or other qualified opinion will be cause for disallowance, with the potential exception for qualified opinions provided in the next sentence. The Director may evaluate qualified opinions on a case-by-case basis and allow use of the financial test in cases where the Director deems that the matters which form the basis for the qualification are insufficient to warrant disallowance of the test. If the Director does not allow use of the test, the owner or operator must provide alternate financial assurance that meets the requirements of this section within 30 days after the notification of disallowance.

(C) If the chief financial officer's letter providing evidence of financial assurance includes financial data showing that the owner or operator satisfies paragraph (f)(1)(i)(B) or (f)(1)(i)(C) of this section that are different from data in the audited financial statements referred to in paragraph (f)(2)(i)(B) of this section or any other audited financial statement or data filed with the SEC, then a special report from the owner's or operator's indepen-

dent certified public accountant to the owner or operator is required. The special report shall be based upon an agreed upon procedures engagement in accordance with professional auditing standards and shall describe the procedures performed in comparing the data in the chief financial officer's letter derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements, the findings of that comparison, and the reasons for any differences.

(D) If the chief financial officer's letter provides a demonstration that the firm has assured for environmental obligations as provided in paragraph (f)(1)(ii)(B) of this section, then the letter shall include a report from the independent certified public accountant that verifies that all of the environmental obligations covered by a financial test have been recognized as liabilities on the audited financial statements, how these obligations have been measured and reported, and that the tangible net worth of the firm is at least \$10 million plus the amount of any guarantees provided.

(ii) The owner or operator of a new facility must submit the items specified in paragraph (f)(2)(i) of this section to the Director at least 60 days before placing waste in the facility.

(iii) After the initial submission of items specified in paragraph (f)(2)(i) of this section, the owner or operator must send updated information to the Director within 90 days following the close of the owner or operator's fiscal year. The Director may provide up to an additional 45 days for an owner or operator who can demonstrate that 90 days is insufficient time to acquire audited financial statements. The updated information must consist of all items specified in paragraph (f)(2)(i) of this section.

(iv) The owner or operator is no longer required to submit the items specified in this paragraph (f)(2) of this section or comply with the requirements of this paragraph (f) when:

(A) The owner or operator substitutes alternate financial assurance as specified in this section that is not subject to these recordkeeping and reporting requirements; or

(B) The Director releases the owner or operator from the requirements of this section in accordance with paragraph (j) of this section.

(v) An owner or operator who no longer meets the requirements of paragraph (f)(1) of this section cannot use the financial test to demonstrate financial assurance. Instead an owner or operator who no longer meets the requirements of paragraph (f)(1) of this section, must:

(A) Send notice to the Director of intent to establish alternate financial assurance as specified in this section. The owner or operator must send this notice by certified mail within 90 days following the close the owner or operator's fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements of this section.

(B) Provide alternative financial assurance within 120 days after the end of such fiscal year.

(vi) The Director may, based on a reasonable belief that the owner or operator may no longer meet the requirements of paragraph (f)(1) of this section, require at any time the owner or operator to provide reports of its financial condition in addition to or including current financial test documentation as specified in paragraph (f)(2) of this section. If the Director finds that the owner or operator no longer meets the requirements of paragraph (f)(1) of this section, the owner or operator must provide alternate financial assurance that meets the requirements of this section.

(g) Corporate Guarantee.

(1) An owner or operator may meet the requirements of this section by obtaining a written guarantee. The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor must meet the requirements for owners or operators in paragraph (f) of this section and must comply with the terms of the guarantee. The wording of the guarantee must be identical to the wording in § 264.151(h). The certified copy of the guarantee must accompany the letter from the guarantor's chief financial officer and accountants' opinions. If the guarantor's parent corporation is also the parent corporation of the owner or operator, the letter from the guarantor's chief financial officer must describe the value received in consideration of the guarantee. If the guarantor is a firm with a "substantial business relationship" with the owner or operator, this letter must describe this "substantial business relationship" and the value received in consideration of the guarantee.

(2) For a new facility, the guarantee must be ef-

fective and the guarantor must submit the items in paragraph (g)(1) of this section and the items specified in paragraph (f)(2)(i) of this section to the Director at least 60 days before the owner or operator places waste in the facility.

(3) The terms of the guarantee must provide that:

(i) If the owner or operator fails to perform closure at a facility covered by the guarantee, the guarantor will:

(A) Perform, or pay a third party to perform closure (performance guarantee); or

(B) Establish a fully funded trust fund as specified in paragraph (a) of this section in the name of the owner or operator (payment guarantee).

(ii) The guarantee will remain in force for as long as the owner or operator must comply with the applicable financial assurance requirements of this subsection unless the guarantor sends prior notice of cancellation by certified mail to the owner or operator and to the Director. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the owner or operator and the Director as evidenced by the return receipts.

(iii) If notice of cancellation is given, the owner or operator must, within 90 days following receipt of the cancellation notice by the owner or operator and the Director, obtain alternate financial assurance, and submit documentation for that alternate financial assurance to the Director. If the owner or operator fails to provide alternate financial assurance and obtain the written approval of such alternative assurance from the Director within the 90-day period, the guarantor must provide that alternate assurance in the name of the owner or operator and submit the necessary documentation for the alternative assurance to the Director within 120 days of the cancellation notice.

(4) If a corporate guarantor no longer meets the requirements of paragraph (f)(1) of this section, the owner or operator must, within 90 days, obtain alternative assurance, and submit the assurance to the Director for approval. If the owner or operator fails to provide alternate financial assurance within the 90-day period, the guarantor must provide that alternate assurance within the next 30 days, and submit it to the Director for approval.

(5) The guarantor is no longer required to meet the requirements of this paragraph (g) when:

(i) The owner or operator substitutes alternate financial assurance as specified in this section; or

(ii) The owner or operator is released from

the requirements of this section in accordance with paragraph (j) of this section.

(h) Use of Multiple Financial Mechanisms. An owner or operator may use more than one mechanism at a particular facility to satisfy the requirements of this section. The acceptable mechanisms are trust funds, surety bonds guaranteeing payment into a trust fund, letters of credit, insurance, the financial test, and the guarantee, except owners or operators cannot combine the financial test with the guarantee. The mechanisms must be as specified in paragraphs (a), (b), (d), (e), (f), and (g) respectively of this section, except it is the combination of mechanisms rather than a single mechanism that must provide assurance for an amount at least equal to the cost estimate. If an owner or operator uses a trust fund in combination with a surety bond or letter of credit, he may use the trust fund as the standby trust for the other mechanisms. A single trust fund can be established for two or more mechanisms. The Director may use any or all of the mechanisms to provide for closure of the facility.

(i) Use of a financial mechanism for multiple facilities. An owner or operator may use a financial mechanism for multiple facilities, as specified in § 264.143(h) of this Regulation.

(j) Release of the owner or operator from the requirements of this section. Within 60 days after receiving certifications from the owner or operator and an independent Arkansas-registered professional engineer that final closure has been completed in accordance with the approved closure plan, the Director will notify the owner or operator in writing that the owner or operator is no longer required by this section to maintain financial assurance for final closure of the facility, unless the Director has reason to believe that final closure has not been completed in accordance with the approved closure plan. The Director shall provide the owner or operator with a detailed written statement of any such reasons to believe that closure has not been conducted in accordance with the approved closure plan.

§ 267.144–267.146 [Reserved]

§ 267.147 Liability requirements.

(a) Coverage for sudden accidental occurrences. An owner or operator of a hazardous waste treatment or storage facility, or a group of such facilities, must demonstrate financial responsibility for bodily injury and property damage to third parties caused by sudden accidental occurrences arising from operations of the facility or group of facilities. The owner or operator must have and maintain liability coverage for sudden accidental occurrences in the amount of at least \$1 million per occurrence with an annual aggregate of at least \$2 million, exclusive of legal defense costs. This liability coverage may be demonstrated as specified in paragraphs (a)(1) through (a)(7) of this section:

(1) Trust fund for liability coverage. An owner or operator may meet the requirements of this sec-

tion by obtaining a trust fund for liability coverage as specified in 40 CFR 264.147(j).

(2) Surety bond for liability coverage. An owner or operator may meet the requirements of this section by obtaining a surety bond for liability coverage as specified in 40 CFR 264.147(i).

(3) Letter of credit for liability coverage. An owner or operator may meet the requirements of this section by obtaining a letter of credit for liability coverage as specified in 40 CFR 264.147(h).

(4) Insurance for liability coverage. An owner or operator may meet the requirements of this section by obtaining liability insurance as specified in 40 CFR 264.147(a)(1).

(5) Financial test for liability coverage. An owner or operator may meet the requirements of this section by passing a financial test as specified in paragraph (f) of this section.

(6) Guarantee for liability coverage. An owner or operator may meet the requirements of this section by obtaining a guarantee as specified in paragraph (g) of this section.

(7) Combination of mechanisms. An owner or operator may demonstrate the required liability coverage through the use of combinations of mechanisms as allowed by 40 CFR 264.147(a)(6).

(8) An owner or operator shall notify the Director in writing within 30 days whenever:

(i) A claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in paragraphs (a)(1) through (a)(7) of this section; or

(ii) A Certification of Valid Claim for bodily injury or property damages caused by a sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is entered between the owner or operator and third-party claimant for liability coverage under paragraphs (a)(1) through (a)(7) of this section; or

(iii) A final court order establishing a judgment for bodily injury or property damage caused by a sudden accidental occurrence arising from the operation of a hazardous waste treatment, storage, or disposal facility is issued against the owner or operator or an instrument that is providing financial assurance for liability coverage under paragraphs (a)(1) through (a)(7) of this section.

(b)–(d) [Reserved]

(e) Period of coverage. Within 60 days after receiving certifications from the owner or operator and an independent Arkansas-registered professional engineer that final closure has been completed in accordance with the approved closure plan, the Director will notify the owner or operator in writing that he is no longer required by this section to

maintain liability coverage from that facility, unless the Director has reason to believe that closure has not been in accordance with the approved closure plan.

(f) Financial test for Liability Coverage. An owner or operator that satisfies the requirements of this paragraph (f) may demonstrate financial assurance for liability up to the amount specified in this paragraph (f):

(1) Financial component.

(i) If using the financial test for only liability coverage, the owner or operator must have tangible net worth greater than the sum of the liability coverage to be demonstrated by this test plus \$10 million.

(ii) The owner or operator must have assets located in the United States amounting to at least the amount of liability covered by this financial test.

(iii) An owner or operator who is demonstrating coverage for liability and any other environmental obligations, including closure under § 267.143(f), through a financial test must meet the requirements of § 267.143(f).

(2) Recordkeeping and reporting requirements.

(i) The owner or operator must submit the following items to the Director:

(A) A letter signed by the owner's or operator's chief financial officer that provides evidence demonstrating that the firm meets the conditions of paragraphs (f)(1)(i) and (f)(1)(ii) of this section. If the firm is providing only liability coverage through a financial test for a facility or facilities with a permit under § 267, the letter should use the wording in § 267.151(b). If the firm is providing only liability coverage through a financial test for facilities regulated under part 267 and also Section 264 or Section 265, it should use the letter in § 264.151(g). If the firm is providing liability coverage through a financial test for a facility or facilities with a permit under § 267, and it assures closure costs or any other environmental obligations through a financial test, it must use the letter in § 267.151(a) for the facilities issued a permit under § 267.

(B) A copy of the independent certified public accountant's unqualified opinion of the owner's or operator's financial statements for the latest completed fiscal year. To be eligible to use the financial test, the owner's or operator's financial statements must receive an unqualified opinion from the independent certified public accountant. An adverse opinion, disclaimer of opinion, or other qualified opinion will be cause for disallowance, with the potential

exception for qualified opinions provided in the next sentence. The Director may evaluate qualified opinions on a case-by-case basis and allow use of the financial test in cases where the Director deems that the matters which form the basis for the qualification are insufficient to warrant disallowance of the test. If the Director does not allow use of the test, the owner or operator must provide alternate financial assurance that meets the requirements of this section (§ 267.147) within 30 days after the notification of disallowance.

(C) If the chief financial officer's letter providing evidence of financial assurance includes financial data showing that the owner or operator satisfies paragraphs (f)(1)(i) and (ii) of this section that are different from data in the audited financial statements referred to in paragraph (f)(2)(i)(B) of this section or any other audited financial statement or data filed with the SEC, then a special report from the owner's or operator's independent certified public accountant to the owner or operator is required. The special report shall be based upon an agreed upon procedures engagement in accordance with professional auditing standards and shall describe the procedures performed in comparing the data in the chief financial officer's letter derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements, the findings of that comparison, and the reasons for any differences.

(ii) The owner or operator of a new facility must submit the items specified in paragraph (f)(2)(i) of this section to the Director at least 60 days before placing waste in the facility.

(iii) After the initial submission of items specified in paragraph (f)(2)(i) of this section, the owner or operator must send updated information to the Director within 90 days following the close of the owner or operator's fiscal year. The Director may provide up to an additional 45 days for an owner or operator who can demonstrate that 90 days is insufficient time to acquire audited financial statements. The updated information must consist of all items specified in paragraph (f)(2)(i) of this section.

(iv) The owner or operator is no longer required to submit the items specified in this paragraph (f)(2) or comply with the requirements of this paragraph (f) when:

(A) The owner or operator substitutes alternate financial assurance as specified in this section that is not subject to these recordkeeping and reporting requirements; or

(B) The Director releases the owner or operator from the requirements of this section in accordance with paragraph (j) of this section.

(v) An owner or operator who no longer meets the requirements of paragraph (f)(1) of this section cannot use the financial test to demonstrate financial assurance. An owner or operator who no longer meets the requirements of paragraph (f)(1) of this section, must:

(A) Send notice to the Director of intent to establish alternate financial assurance as specified in this section. The owner or operator must send this notice by certified mail within 90 days following the close of the owner or operator's fiscal year for which the year-end financial data show that the owner or operator no longer meets the requirements of this section.

(B) Provide alternative financial assurance within 120 days after the end of such fiscal year.

(vi) The Director may, based on a reasonable belief that the owner or operator may no longer meet the requirements of paragraph (f)(1) of this section, require at any time the owner or operator to provide reports of its financial condition in addition to or including current financial test documentation as specified in paragraph (f)(2) of this section. If the Director finds that the owner or operator no longer meets the requirements of paragraph (f)(1) of this section, the owner or operator must provide alternate financial assurance that meets the requirements of this section.

(g) Guarantee for liability coverage. (1) Subject to paragraph (g)(2) of this section, an owner or operator may meet the requirements of this section by obtaining a written guarantee, hereinafter referred to as "guarantee." The guarantor must be the direct or higher-tier parent corporation of the owner or operator, a firm whose parent corporation is also the parent corporation of the owner or operator, or a firm with a "substantial business relationship" with the owner or operator. The guarantor must meet the requirements for owners or operators in paragraphs (f)(1) through (f)(3) of this section. The wording of the guarantee must be identical to the wording specified in 40 CFR 264.151(h)(2). A certified copy of the guarantee must accompany the items sent to the Director as specified in paragraph (f)(2) of this section. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the owner or operator, this letter

must describe the value received in consideration of the guarantee. If the guarantor is a firm with a “substantial business relationship” with the owner or operator, this letter must describe this “substantial business relationship” and the value received in consideration of the guarantee.

(i) If the owner or operator fails to satisfy a judgment based on a determination of liability for bodily injury or property damage to third parties caused by sudden accidental occurrences arising from the operation guarantee, or fails to pay an amount agreed to in settlement of claims arising from or alleged to arise from such injury or damage, the guarantor will do so up to the limits of coverage.

(ii) [Reserved]

(2)(i) In the case of corporations incorporated in the United States, a guarantee may be used to satisfy the requirements of this section only if the Attorneys General or Insurance Commissioners of the State in which the guarantor is incorporated, and each State in which a facility covered by the guarantee is located, have submitted a written statement to EPA that a guarantee executed as described in this section and § 264.151(h)(2) is a legally valid and enforceable obligation in that State.

(ii) In the case of corporations incorporated outside the United States, a guarantee may be used to satisfy the requirements of this section only if:

(A) The non-U.S. corporation has identified a registered agent for service of process in each State in which a facility covered by the guarantee is located and in the State in which it has its principal place of business; and

(B) The Attorney General or Insurance Commissioner of each State in which a facility covered by the guarantee is located and the State in which the guarantor corporation has its principal place of business, has submitted a written statement to EPA that a guarantee executed as described in this section and § 264.151(h)(2) is a legally valid and enforceable obligation in that State.

§ 267.148 Incapacity of owners or operators, guarantors, or financial institutions.

(a) An owner or operator must notify the Director by certified mail of the commencement of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming the owner or operator as debtor, within 10 days after commencement of the proceeding. A guarantor of a corporate guarantee as specified in §§ 267.143(g) and 267.147 (g) must make such a notification if he is named as debtor, as

required under the terms of the corporate guarantee (§ 264.151(h)).

(b) An owner or operator who fulfills the requirements of § 267.143 or § 267.147 by obtaining a trust fund, surety bond, letter of credit, or insurance policy will be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy of the trustee or issuing institution, or a suspension or revocation of the authority of the trustee institution to act as trustee or of the institution issuing the surety bond, letter of credit, or insurance policy to issue such instruments. The owner or operator must establish other financial assurance or liability coverage within 60 days after such an event.

§ 267.149 [Reserved]

§ 267.150 State assumption of responsibility.

(a) If a State either assumes legal responsibility for an owner’s or operator’s compliance with the closure care or liability requirements of this section or assures that funds will be available from State sources to cover those requirements, the owner or operator will be in compliance with the requirements of § 267.143 or § 267.147 if the Director determines that the State’s assumption of responsibility is at least equivalent to the financial mechanisms specified in this subsection. The Director will evaluate the equivalency of State guarantees principally in terms of: Certainty of the availability of funds for the required closure care activities or liability coverage; and the amount of funds that will be made available. The Director may also consider other factors as he deems appropriate. The owner or operator must submit to the Director a letter from the State describing the nature of the State’s assumption of responsibility together with a letter from the owner or operator requesting that the State’s assumption of responsibility be considered acceptable for meeting the requirements of this subsection. The letter from the State must include, or have attached to it, the following information: The facility’s EPA Identification Number, name, and address, and the amount of funds for closure care or liability coverage that are guaranteed by the State. The Director will notify the owner or operator of his determination regarding the acceptability of the State’s guarantee in lieu of financial mechanisms specified in this subsection. The Director may require the owner or operator to submit additional information as is deemed necessary to make this determination. Pending this determination, the owner or operator will be deemed to be in compliance with the requirements of § 267.143 or § 267.147, as applicable.

(b) If a State’s assumption of responsibility is found acceptable as specified in paragraph (a) of this section except for the amount of funds available, the owner or operator may satisfy the requirements of this subsection by use of both the State’s assurance and additional financial mechanisms as specified in this subsection. The amount of funds available through the State and Federal mechanisms must at

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least equal the amount required by this subsection.

§ 267.151 Wording of the instruments.

(a) The chief financial officer of an owner or operator of a facility with a standardized permit who uses a financial test to demonstrate financial assurance for that facility must complete a letter as specified in § 267.143(f) of this Regulation. The letter must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

I am the chief financial officer of [name and address of firm]. This letter is in support of this firm's use of the financial test to demonstrate financial assurance for closure costs, as specified in [insert "subsection H of Regulation No. 23 § 267" or the citation to the corresponding state regulation]. This firm qualifies for the financial test on the basis of having [insert "a current rating for its senior unsecured debt of AAA, AA, A, or BBB as issued by Standard and Poor's or Aaa, Aa, A or Baa as issued by Moody's" or "a ratio of less than 1.50 comparing total liabilities to net worth" or "a ratio of greater than 0.10 comparing the sum of net income plus depreciation, depletion and amortization, minus \$10 million, to total liabilities."]

This firm [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended [date].

[If this firm qualifies on the basis of its bond rating fill in the requested information: "This firm has a rating of its senior unsecured debt of ___"[insert the bond rating] "from" [insert "Standard and Poor's" or "Moody's"].

Complete Line 1. Total Liabilities below and then skip the remaining questions in the next section and resume completing the form at the section entitled Obligations Covered by a Financial Test or Corporate Guarantee.]

[If this firm qualifies for the financial test on the basis of its ratio of liabilities to net worth, or sum of income, depreciation, depletion, and amortization to net worth, please complete the following section.]

- *1. Total Liabilities \$ _____
- *2. Net Worth \$ _____
- *3. Net Income \$ _____
- *4. Depreciation \$ _____
- *5. Depletion (if applicable) \$ _____
- *6. Amortization \$ _____
- *7. Sum of Lines 3., 4., 5. & 6 \$ _____

[If the above figures are taken directly from the most recent audited financial statements for this firm insert "The above figures are taken directly from the most recent audited financial statements for this firm." If they are not, insert "The following items are not taken directly from the firms most recent audited financial statements" [insert the numbers of the items and attach an explanation of how they were derived.]

[Complete the following calculations]

- 8. Line 1. ??Line 2. = _____
- 9. Line 7. ??Line 1. = _____
- Is Line 8. less than 1.5? ___Yes ___No
- Is Line 9 greater than 0.10?___Yes ___No

[If you did not answer Yes to either of these two questions, you cannot use the financial test and need not complete this letter. Instead, you must notify the permitting authority for the facility that you intend to establish alternate financial assurance as specified in 40 CFR 267.143. The owner or operator must send this notice by certified mail within 90 days following the close of the owner or operator's fiscal year for which the year-end financial data show that the owner or operator no longer meets the require-

ments of this section. The owner or operator must also provide alternative financial assurance within 120 days after the end of such fiscal year.]

Obligations Covered by a Financial Test or Corporate Guarantee
[On the following lines list all obligations that are covered by a financial test or a corporate guarantee extended by your firm. You may add additional lines and leave blank entries that do not apply to your situation.]

Hazardous Waste Facility Name and ID State Closure Post-Closure Corrective Action

Hazardous Waste Third Party Liability \$ _____
Municipal Waste Facilities State Closure Post-Closure Corrective Action

Underground Injection Control State Plugging Action

Petroleum Underground Storage Tanks

PCB Storage Facility Name and ID State Closure

Any financial assurance required under, or as part of an action undertaken under, the Comprehensive Environmental Response, Compensation, and Liability Act.

Site name State Amount
_____ \$ _____

Any other environmental obligations that are assured through a financial test.

- Name Amount
_____ \$ _____
- *10. Total of all amounts \$ _____
 - *11. Line 10 + \$10,000,000 = \$ _____
 - *12. Total Assets \$ _____
 - *13. Intangible Assets \$ _____
 - *14. Tangible Assets (Line 12. - Line 13) \$ _____
 - *15. Tangible Net Worth (Line 14. - Line 1.) \$ _____
 - *16. Assets in the United States \$ _____
- Is Line 15 greater than Line 11? ___Yes ___No
Is Line 16 no less than Line 10? ___Yes ___No

[You must be able to answer Yes to both these questions to use the financial test for this facility.]

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR 267.151 as such regulations were constituted on the date shown immediately below.

[Signature] _____
[Name] _____
[Title] _____
[Date] _____

[After completion, a signed copy of the form must be sent to the permitting authority of the state or territory where the facility is located. In addition, a signed copy must be sent to every authority who (1) requires a demonstration through a financial test for each of the other obligations in the letter that are assured through a financial test, or (2) accepts a guarantee for an obligation listed in this letter.]

(b)The chief financial officer of an owner or operator of a facility with a standardized permit who use a financial test to demonstrate financial assurance only for third party liability for that (or other standardized permit) facility(ies) must complete a letter as specified in Section 267.147(f) of this Regulation. The letter must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

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I am the chief financial officer of [name and address of firm]. This letter is in support of this firm's use of the financial test to demonstrate financial assurance for third party liability, as specified in [insert "subsection H of 40 CFR section 267" or the citation to the corresponding state regulation]. This firm qualifies for the financial test on the basis of having tangible net worth of at least \$10 million more than the amount of liability coverage and assets in the United States of at least the amount of liability coverage.

This firm [insert "is required" or "is not required"] to file a Form 10K with the Securities and Exchange Commission (SEC) for the latest fiscal year.

The fiscal year of this firm ends on [month, day]. The figures for the following items marked with an asterisk are derived from this firm's independently audited, year-end financial statements for the latest completed fiscal year, ended [date].

[Please complete the following section.]

- *1. Total Assets \$ _____
 - *2. Intangible Assets \$ _____
 - *3. Tangible Assets (Line 1-3) \$ _____
 - *4. Total Liabilities \$ _____
 - 5. Tangible Net Worth (Line 3-4) \$ _____
 - *6. Assets in the United States \$ _____
 - 7. Amount of liability coverage \$ _____
- Is Line 5 At least \$10 million greater than Line 7? Yes No
 Is Line 6 at least equal to Line 7? Yes No

[You must be able to answer Yes to both these questions to use the financial test for this facility.]

I hereby certify that the wording of this letter is identical to the wording specified in 40 CFR 267.151 as such regulations were constituted on the date shown immediately below.

[Signature] _____
 [Name] _____
 [Title] _____
 [Date] _____

[After completion, a signed copy of the form must be sent to the permitting authority of the state or territory where the facility(ies) is(are) located.]

Subsection I—Use and Management of Containers

§ 267.170 Does this subsection apply to me?

This subsection applies to you if you own or operate a facility that treats or stores hazardous waste in containers under a 40 CFR section 270 subsection J standardized permit, except as provided in § 267.1(b).

§ 267.171 What standards apply to the containers?

Standards apply to the condition of the containers, to the compatibility of waste with the containers, and to the management of the containers.

(a) Condition of containers. If a container holding hazardous waste is not in good condition (for example, it exhibits severe rusting or apparent structural defects) or if it be-

gins to leak, you must either:

- (1) Transfer the hazardous waste from this container to a container that is in good condition; or
- (2) Manage the waste in some other way that complies with the requirements of this section.

(b) Compatibility of waste with containers. To ensure that the ability of the container to contain the waste is not impaired, you must use a container made of or lined with materials that are compatible and will not react with the hazardous waste to be stored.

(c) Management of containers. (1) You must always keep a container holding hazardous waste closed during storage, except when you add or remove waste.

- (2) You must never open, handle, or store a container holding hazardous waste in a manner that may rupture the container or cause it to leak.

§ 267.172 What are the inspection requirements?

At least weekly, you must inspect areas where you store containers, looking for leaking containers and for deterioration of containers and the containment system caused by corrosion or other factors.

§ 267.173 What standards apply to the container storage areas?

(a) You must design and operate a containment system for your container storage areas according to the requirements in paragraph (b) of this section, except as otherwise provided by paragraph (c) of this section.

(b) The design and operating requirements for a containment system are:

- (1) A base must underlie the containers that is free of cracks or gaps and is sufficiently impervious to contain leaks, spills, and accumulated precipitation until the collected material is detected and removed.

- (2) The base must be sloped or the containment system, must be otherwise designed and operated to drain and remove liquids resulting from leaks, spills, or precipitation, unless the containers are elevated or are otherwise protected from contact with accumulated liquids.

- (3) The containment system must have sufficient capacity to contain 10% of the volume of containers, or the volume of the largest container, whichever is greater. This requirement does not apply to containers that do not contain free liquids.

- (4) You must prevent run-on into the containment system unless the collection system has sufficient excess capacity, in addition to that required in paragraph (b)(3) of this section, to contain the liquid.

- (5) You must remove any spilled or leaked waste

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and accumulated precipitation from the sump or collection area as promptly as is necessary to prevent overflow of the collection system.

(c) Except as provided in paragraph (d) of this section, you do not need a containment system as defined in paragraph (b) of this section for storage areas that store containers holding only wastes with no free liquids, if:

(1) The storage area is sloped or is otherwise designed and operated to drain and remove liquid resulting from precipitation; or

(2) The containers are elevated or are otherwise protected from contact with accumulated liquid.

(d) You must have a containment system defined by paragraph (b) of this section for storage areas that store containers holding F020, F021, F022, F023, F026, and F027 wastes, even if the wastes do not contain free liquids.

§ 267.174 What special requirements must I meet for ignitable or reactive waste?

You must locate containers holding ignitable or reactive waste at least 15 meters (50 feet) from your facility property line. You must also follow the general requirements for ignitable or reactive wastes that are specified in § 267.17(a).

§ 267.175 What special requirements must I meet for incompatible wastes?

(a) You must not place incompatible wastes, or incompatible wastes and materials (see appendix V to Section 264 for examples), in the same container, unless you comply with § 267.17(b).

(b) You must not place hazardous waste in an unwashed container that previously held an incompatible waste or material.

(c) You must separate a storage container holding a hazardous waste that is incompatible with any waste or with other materials stored nearby in other containers, piles, open tanks, or surface impoundments from the other materials, or protect the containers by means of a dike, berm, wall, or other device.

§ 267.176 What must I do when I want to stop using the containers?

You must remove all hazardous waste and hazardous waste residues from the containment system. You must decontaminate or remove remaining containers, liners, bases, and soil containing, or contaminated with, hazardous waste or hazardous waste residues.

§ 267.177 What air emission standards apply?

You must manage all hazardous waste placed in a container according to the requirements of subsections AA, BB, and CC of Section 264 of this regulation. Under a standardized permit, the following control devices are permissible: Thermal vapor incinerator, catalytic vapor incinerator, flame, boiler, process heater, condenser, and carbon absorption unit.

Subsection J—Tank Systems

§ 267.190 Does this subsection apply to me?

This subsection applies to you if you own or operate a facility that treats or stores hazardous waste in above-ground or on-ground tanks under a Section 270 subsection J standardized permit, except as provided in § 267.1(b).

(a) You do not have to meet the secondary containment requirements in § 267.195 if your tank systems do not contain free liquids and are situated inside a building with an impermeable floor. You must demonstrate the absence or presence of free liquids in the stored/treated waste, using Method 9095B (Paint Filter Liquids Test) as described in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846, as incorporated by reference in § 260.11 of this regulation.

(b) You do not have to meet the secondary containment requirements of § 267.195(a) if your tank system, including sumps, as defined in § 260.10 of this regulations, is part of a secondary containment system to collect or contain releases of hazardous wastes.

§ 267.191 What are the required design and construction standards for new tank systems or components?

You must ensure that the foundation, structural support, seams, connections, and pressure controls (if applicable) are adequately designed and that the tank system has sufficient structural strength, compatibility with the waste(s) to be stored or treated, and corrosion protection to ensure that it will not collapse, rupture, or fail. You must obtain a written assessment, reviewed and certified by an independent, qualified Arkansas-registered professional engineer, following § 270.11(d) of this regulation, attesting that the tank system has sufficient structural integrity and is acceptable for the storing and treating of hazardous waste. This assessment must include, at a minimum, the following information:

(a) Design standard(s) for the construction of tank(s) and/or the ancillary equipment.

(b) Hazardous characteristics of the waste(s) to be handled.

(c) For new tank systems or components in which the external shell of a metal tank or any external metal component of the tank system will be in contact with the soil or

with water, a determination by a corrosion expert of:

(1) Factors affecting the potential for corrosion, such as:

- (i) Soil moisture content.
- (ii) Soil pH.
- (iii) Soil sulfides level.
- (iv) Soil resistivity.
- (v) Structure to soil potential.
- (vi) Existence of stray electric current.
- (vii) Existing corrosion-protection measures (for example, coating, cathodic protection).

(2) The type and degree of external corrosion protection needed to ensure the integrity of the tank system during the use of the tank system or component, consisting of one or more of the following:

- (i) Corrosion-resistant materials of construction such as special alloys, fiberglass reinforced plastic, etc.
- (ii) Corrosion-resistant coating (such as epoxy, fiberglass, etc.) with cathodic protection (for example, impressed current or sacrificial anodes) and
- (iii) Electrical isolation devices such as insulating joints, flanges, etc.

(d) Design considerations to ensure that:

- (1) Tank foundations will maintain the load of a full tank.
- (2) Tank systems will be anchored to prevent flotation or dislodgment where the tank system is placed in a saturated zone, or is located within a seismic fault zone subject to the standards of § 267.18(a).
- (3) Tank systems will withstand the effects of frost heave.

§ 267.192 What handling and inspection procedures must I follow during installation of new tank systems?

(a) You must ensure that you follow proper handling procedures to prevent damage to a new tank system during installation. Before placing a new tank system or component in use, an independent, qualified installation inspector or an independent, qualified, Arkansas-registered professional engineer, either of whom is trained and experienced in the proper installation of tank systems or components, must inspect the system for the presence of any of the following items:

- (1) Weld breaks.
- (2) Punctures.
- (3) Scrapes of protective coatings.
- (4) Cracks.
- (5) Corrosion.
- (6) Other structural damage or inadequate construction/installation.

(b) You must remedy all discrepancies before the tank

system is placed in use.

§ 267.193 What testing must I do?

You must test all new tanks and ancillary equipment for tightness before you place them in use. If you find a tank system that is not tight, you must perform all repairs necessary to remedy the leak(s) in the system before you cover, enclose, or place the tank system into use.

§ 267.194 What installation requirements must I follow?

(a) You must support and protect ancillary equipment against physical damage and excessive stress due to settlement, vibration, expansion, or contraction.

(b) You must provide the type and degree of corrosion protection recommended by an independent corrosion expert, based on the information provided under § 267.191(c), to ensure the integrity of the tank system during use of the tank system. An independent corrosion expert must supervise the installation of a corrosion protection system that is field fabricated to ensure proper installation.

(c) You must obtain, and keep at the facility, written statements by those persons required to certify the design of the tank system and to supervise the installation of the tank system as required in §§ 267.192, 267.193, and paragraphs (a) and (b) of this section. The written statement must attest that the tank system was properly designed and installed and that you made repairs under §§ 267.192 and 267.193. These written statements must also include the certification statement as required in § 270.11(d).

§ 267.195 What are the secondary containment requirements?

To prevent the release of hazardous waste or hazardous constituents to the environment, you must provide secondary containment that meets the requirements of this section for all new and existing tank systems.

(a) Secondary containment systems must be:

- (1) Designed, installed, and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, groundwater, or surface water at any time during the use of the tank system; and
- (2) Capable of detecting and collecting releases and accumulated liquids until the collected material is removed.

(b) To meet the requirements of paragraph (a) of this section, secondary containment systems must be, at a minimum:

- (1) Constructed of or lined with materials that are compatible with the wastes(s) to be placed in

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the tank system and must have sufficient strength and thickness to prevent failure owing to pressure gradients (including static head and external hydrological forces), physical contact with the waste to which it is exposed, climatic conditions, and the stress of daily operation (including stresses from nearby vehicular traffic).

(2) Placed on a foundation or base capable of providing support to the secondary containment system, resistance to pressure gradients above and below the system, and capable of preventing failure due to settlement, compression, or uplift.

(3) Provided with a leak-detection system that is designed and operated so that it will detect the failure of either the primary or secondary containment structure or the presence of any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours.

(4) Sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. You must remove spilled or leaked waste and accumulated precipitation from the secondary containment system within 24 hours, or as promptly as possible, to prevent harm to human health and the environment.

§ 267.196 What are the required devices for secondary containment and what are their design, operating and installation requirements?

(a) Secondary containment for tanks must include one or more of the following:

- (1) A liner (external to the tank).
- (2) A double-walled tank.

(3) An equivalent device; you must maintain documentation of equivalency at the facility.

(b) External liner systems must be:

(1) Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary.

(2) Designed or operated to prevent run-on or infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity to contain run-on or infiltration. The additional capacity must be sufficient to contain precipitation from a 25-year, 24-hour rainfall event.

(3) Free of cracks or gaps.

(4) Designed and installed to surround the tank completely and to cover all surrounding earth likely to come into contact with the waste if the waste is released from the tank(s) (that is, capable of preventing lateral as well as vertical migration of the waste).

(c) Double-walled tanks must be:

(1) Designed as an integral structure (that is, an

inner tank completely enveloped within an outer shell) so that any release from the inner tank is contained by the outer shell.

(2) Protected, if constructed of metal, from both corrosion of the primary tank interior and of the external surface of the outer shell.

(3) Provided with a built-in continuous leak detection system capable of detecting a release within 24 hours.

§ 267.197 What are the requirements for ancillary equipment?

You must provide ancillary equipment with secondary containment (for example, trench, jacketing, doublewalled piping) that meets the requirements of § 267.195 (a) and (b), except for:

(a) Above ground piping (exclusive of flanges, joints, valves, and other connections) that are visually inspected for leaks on a daily basis;

(b) Welded flanges, welded joints, and welded connections, that are visually inspected for leaks on a daily basis;

(c) Sealless or magnetic coupling pumps and sealless valves, that are visually inspected for leaks on a daily basis; and

(d) Pressurized above ground piping systems with automatic shut-off devices (for example, excess flow check valves, flow metering shutdown devices, loss of pressure actuated shut-off devices) that are visually inspected for leaks on a daily basis.

§ 267.198 What are the general operating requirements for my tank systems?

(a) You must not place hazardous wastes or treatment reagents in a tank system if they could cause the tank, its ancillary equipment, or the containment system to rupture, leak, corrode, or otherwise fail.

(b) You must use appropriate controls and practices to prevent spills and overflows from tank or containment systems. These include, at a minimum:

(1) Spill prevention controls (for example, check valves, dry disconnect couplings).

(2) Overfill prevention controls (for example, level sensing devices, high level alarms, automatic feed cutoff, or bypass to a standby tank).

(3) Sufficient freeboard in uncovered tanks to prevent overtopping by wave or wind action or by precipitation.

(c) You must comply with the requirements of § 267.200 if a leak or spill occurs in the tank system.

§ 267.199 What inspection requirements must I meet?

You must comply with the following requirements for scheduling, conducting, and documenting inspections.

- (a) Develop and follow a schedule and procedure for inspecting overflow controls.
- (b) Inspect at least once each operating day:
 - (1) Aboveground portions of the tank system to detect corrosion or releases of waste.
 - (2) Data gathered from monitoring and leak detection equipment (for example, pressure or temperature gauges, monitoring wells) to ensure that the tank system is being operated according to its design.
 - (3) The construction materials and the area immediately surrounding the externally accessible portion of the tank system, including the secondary containment system (for example, dikes) to detect erosion or signs of releases of hazardous waste (for example, wet spots, dead vegetation).
- (c) Inspect cathodic protection systems, if present, according to, at a minimum, the following schedule to ensure that they are functioning properly:
 - (1) Confirm that the cathodic protection system is operating properly within six months after initial installation and annually thereafter.
 - (2) Inspect and/or test all sources of impressed current, as appropriate, at least every other month.
- (d) Document, in the operating record of the facility, an inspection of those items in paragraphs (a) through (c) of this section.

§ 267.200 What must I do in case of a leak or a spill?

If there has been a leak or a spill from a tank system or secondary containment system, or if either system is unfit for use, you must remove the system from service immediately, and you must satisfy the following requirements:

- (a) Immediately stop the flow of hazardous waste into the tank system or secondary containment system and inspect the system to determine the cause of the release.
- (b) Remove the waste from the tank system or secondary containment system.
 - (1) If the release was from the tank system, you must, within 24 hours after detecting the leak, remove as much of the waste as is necessary to prevent further release of hazardous waste to the environment and to allow inspection and repair of the tank system to be performed.
 - (2) If the material released was to a secondary containment system, you must remove all released materials within 24 hours or as quickly as possible to prevent harm to human health and the environment.

(c) Immediately conduct a visual inspection of the release and, based upon that inspection:

- (1) Prevent further migration of the leak or spill to soils or surface water.
- (2) Remove, and properly dispose of, any visible contamination of the soil or surface water.
- (d) Report any release to the environment, except as provided in paragraph (d)(1) of this section, to the Director within 24 hours of its detection. If you have reported the release pursuant to 40 CFR part 302, that report will satisfy this requirement.
 - (1) You need not report on a leak or spill of hazardous waste if it is:
 - (i) Less than or equal to a quantity of one (1) pound; and
 - (ii) Immediately contained and cleaned up.
 - (2) Within 30 days of detection of a release to the environment, you must submit a report to the Director containing the following information:
 - (i) The likely route of migration of the release.
 - (ii) The characteristics of the surrounding soil (soil composition, geology, hydrogeology, climate).
 - (iii) The results of any monitoring or sampling conducted in connection with the release (if available). If sampling or monitoring data relating to the release are not available within 30 days, you must submit these data to the Director as soon as they become available.
 - (iv) The proximity to downgradient drinking water, surface water, and populated areas.
 - (v) A description of response actions taken or planned.
- (e) Either close the system or make necessary repairs.
 - (1) Unless you satisfy the requirements of paragraphs (e)(2) and (3) of this section, you must close the tank system according to § 267.201.
 - (2) If the cause of the release was a spill that has not damaged the integrity of the system, you may return the system to service as soon as you remove the released waste and make any necessary repairs.
 - (3) If the cause of the release was a leak from the primary tank system into the secondary containment system, you must repair the system before returning the tank system to service.
- (f) If you have made extensive repairs to a tank system in accordance with paragraph (e) of this section (for example, installation of an internal liner; repair of a ruptured primary containment or secondary containment vessel), you may not return the tank system to service unless the repair is certified by an independent, qualified, Arkansas-registered, professional engineer in accordance with § 270.11(d).
 - (1) The engineer must certify that the repaired system is capable of handling hazardous wastes without release for the intended life of the system.

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(2) You must submit this certification to the Director within seven days after returning the tank system to use.

§ 267.201 What must I do when I stop operating the tank system?

When you close a tank system, you must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated soils, and structures and equipment contaminated with waste, and manage them as hazardous waste, unless 40 CFR 261.3(d) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for tank systems must meet all of the requirements specified in subsections G and H of this section.

§ 267.202 What special requirements must I meet for ignitable or reactive wastes?

(a) You may not place ignitable or reactive waste in tank systems, unless:

(1) You treat, render, or mix the waste before or immediately after placement in the tank system so that:

(i) You comply with § 267.17(b); and (ii) The resulting waste, mixture, or dissolved material no longer meets the definition of ignitable or reactive waste under § 261.21 or § 261.23 of this Regulation; or

(2) You store or treat the waste in such a way that it is protected from any material or conditions that may cause the waste to ignite or react; or

(3) You use the tank system solely for emergencies.

(b) If you store or treat ignitable or reactive waste in a tank, you must comply with the requirements for the maintenance of protective distances between the waste management area and any public ways, streets, alleys, or an adjoining property line that can be built upon as required in Tables 2-1 through 2-6 of the National Fire Protection Association's "Flammable and Combustible Liquids Code," (1977 or 1981), (incorporated by reference, see § 260.11).

§ 267.203 What special requirements must I meet for incompatible wastes?

(a) You may not place incompatible wastes, or incompatible wastes and materials, in the same tank system, unless you comply with § 267.17(b).

(b) You may not place hazardous waste in a tank system that has not been decontaminated and that previously held an incompatible waste or material, unless you comply with § 267.17(b).

§ 267.204 What air emission standards apply?

You must manage all hazardous waste placed in a tank following the requirements of subsections AA, BB, and CC of Section 264 of this Regulation. Under a standardized permit, the following control devices are permissible: Thermal vapor incinerator, catalytic vapor incinerator, flame, boiler, process heater, condenser, and carbon absorption unit.

Subsections K through CC [Reserved]

Subsection DD—Containment buildings

§ 267.1100 Does this subsection apply to me?

This subsection applies to you if you own or operate a facility that treats or stores hazardous waste in containment buildings under a Section 270 subsection J standardized permit, except as provided in § 267.1(b). Storage and/or treatment in your containment building is not land disposal as defined in § 268.2 if your unit meets the requirements of §§ 267.1101, 267.1102, and 267.1103.

§ 267.1101 What design and operating standards must my containment building meet?

Your containment building must comply with the design and operating standards in this section. The Department will consider standards established by professional organizations generally recognized by the industry such as the American Concrete Institute (ACI) and the American Society of Testing Materials (ASTM) in judging the structural integrity requirements of this section.

(a) The containment building must be completely enclosed with a floor, walls, and a roof to prevent exposure to the elements, (e.g., precipitation, wind, run-on), and to assure containment of managed wastes.

(b) The floor and containment walls of the unit, including the secondary containment system, if required under § 267.1103, must be designed and sufficient strength and thickness to:

(1) Support themselves, the waste contents, and any personnel and heavy equipment that operates within the unit.

(2) Prevent failure due to:

(i) Pressure gradients, settlement, compression, or uplift.

(ii) Physical contact with the hazardous wastes to which they are exposed.

(iii) Climatic conditions.

(iv) Stresses of daily operation, including the movement of heavy equipment within the unit and contact of such equipment with containment walls.

(v) Collapse or other failure.

(c) All surfaces to be in contact with hazardous wastes must be chemically compatible with those wastes.

(d) You must not place incompatible hazardous wastes or treatment reagents in the unit or its secondary containment system if they could cause the unit or secondary containment system to leak, corrode, or otherwise fail.

(e) A containment building must have a primary barrier designed to withstand the movement of personnel, waste, and handling equipment in the unit during the operating life of the unit and appropriate for the physical and chemical characteristics of the waste to be managed.

(f) If appropriate to the nature of the waste management operation to take place in the unit, an exception to the structural strength requirement may be made for light-weight doors and windows that meet these criteria:

(1) They provide an effective barrier against fugitive dust emissions under § 267.1102(d).

(2) The unit is designed and operated in a fashion that assures that wastes will not actually come in contact with these openings.

(g) You must inspect and record in the facility's operating record, at least once every seven days, data gathered from monitoring equipment and leak detection equipment, as well as the containment building and the area immediately surrounding the containment building to detect signs of releases of hazardous waste.

(h) You must obtain certification by a qualified registered professional engineer that the containment building design meets the requirements of §§ 267.1102, 267.1103, and paragraphs (a) through (f) of this section.

§ 267.1102 What other requirements must I meet to prevent releases?

You must use controls and practices to ensure containment of the hazardous waste within the unit, and must, at a minimum:

(a) Maintain the primary barrier to be free of significant cracks, gaps, corrosion, or other deterioration that could cause hazardous waste to be released from the primary barrier. (b) Maintain the level of the stored/treated hazardous waste within the containment walls of the unit so that the height of any containment wall is not exceeded.

(c) Take measures to prevent personnel or by equipment used in handling the waste from tracking hazardous waste out of the unit. You must designate an area to decontaminate equipment, and you must collect and properly manage any rinseate.

(d) Take measures to control fugitive dust emissions such that any openings (doors, windows, vents, cracks, etc.) exhibit no visible emissions (see 40 CFR part 60, appendix A, Method 22—Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions from Flares). In addition, you must operate and maintain all associated particulate collection devices (for example, fabric filter, electrostatic precipitator) with sound air pollution control prac-

tices. You must effectively maintain this state of no visible emissions at all times during routine operating and maintenance conditions, including when vehicles and personnel are entering and exiting the unit.

§ 267.1103 What additional design and operating standards apply if liquids will be in my containment building?

If your containment building will be used to manage hazardous wastes containing free liquids or treated with free liquids, as determined by the paint filter test, by a visual examination, or by other appropriate means, you must include:

(a) A primary barrier designed and constructed of materials to prevent the migration of hazardous constituents into the barrier (for example, a geomembrane covered by a concrete wear surface).

(b) A liquid collection and removal system to minimize the accumulation of liquid on the primary barrier of the containment building.

(1) The primary barrier must be sloped to drain liquids to the associated collection system; and

(2) You must collect and remove liquids and waste to minimize hydraulic head on the containment system at the earliest practicable time.

(c) A secondary containment system, including a secondary barrier designed and constructed to prevent migration of hazardous constituents into the barrier, and a leak detection system capable of detecting failure of the primary barrier and collecting accumulated hazardous wastes and liquids at the earliest practical time.

(1) You may meet the requirements of the leak detection component of the secondary containment system by installing a system that is, at a minimum:

(i) Constructed with a bottom slope of 1 percent or more; and

(ii) Constructed of a granular drainage material with a hydraulic conductivity of 1×10^{-2} cm/sec or more and a thickness of 12 inches (30.5 cm) or more, or constructed of synthetic or geonet drainage materials with a transmissivity of 3×10^{-5} m² sec or more.

(2) If you will be conducting treatment in the building, you must design the area in which the treatment will be conducted to prevent the release of liquids, wet materials, or liquid aerosols to other portions of the building.

(3) You must construct the secondary containment system using materials that are chemically resistant to the waste and liquids managed in the containment building and of sufficient strength and thickness to prevent collapse under the pressure exerted by overlaying materials and by any equipment used in the containment building.

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§ 267.1104 How may I obtain a waiver from secondary containment requirements?

Notwithstanding any other provision of this subsection, the Director may waive requirements for secondary containment for a permitted containment building where:

- (a) You demonstrate that the only free liquids in the unit are limited amounts of dust suppression liquids required to meet occupational health and safety requirements, and
- (b) Containment of managed wastes and dust suppression liquids can be assured without a secondary containment system.

§ 267.1105 What do I do if my containment building contains areas both with and without secondary containment?

For these containment buildings, you must:

- (a) Design and operate each area in accordance with the requirements enumerated in §§ 267.1101 through 267.1103.
- (b) Take measures to prevent the release of liquids or wet materials into areas without secondary containment.
- (c) Maintain in the facility's operating log a written description of the operating procedures used to maintain the integrity of areas without secondary containment.

§ 267.1106 What do I do if I detect a release?

Throughout the active life of the containment building, if you detect a condition that could lead to or has caused a release of hazardous waste, you must repair the condition promptly, in accordance with the following procedures.

- (a) Upon detection of a condition that has led to a release of hazardous waste (for example, upon detection of leakage from the primary barrier), you must:
 - (1) Enter a record of the discovery in the facility operating record;
 - (2) Immediately remove the portion of the containment building affected by the condition from service;
 - (3) Determine what steps you must take to repair the containment building, to remove any leakage from the secondary collection system, and to establish a schedule for accomplishing the cleanup

and repairs; and

(4) Within 7 days after the discovery of the condition, notify the Director of the condition, and within 14 working days, provide a written notice to the Director with a description of the steps taken to repair the containment building, and the schedule for accomplishing the work.

(b) The Director will review the information submitted, make a determination regarding whether the containment building must be removed from service completely or partially until repairs and cleanup are complete, and notify you of the determination and the underlying rationale in writing.

(c) Upon completing all repairs and cleanup, you must notify the Director in writing and provide a verification, signed by a qualified, registered professional engineer, that the repairs and cleanup have been completed according to the written plan submitted in accordance with paragraph (a)(4) of this section.

§ 267.1107 Can a containment building itself be considered secondary containment?

Containment buildings can serve as secondary containment systems for tanks placed within the building under certain conditions.

(a) A containment building can serve as an external liner system for a tank, provided it meets the requirements of § 267.196(a).

(b) The containment building must also meet the requirements of § 267.195(a), (b)(1) and (2) to be considered an acceptable secondary containment system for a tank.

§ 267.1108 What must I do when I stop operating the containment building?

When you close a containment building, you must remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate and manage them as hazardous waste unless 40 CFR 261.3(d) applies. The closure plan, closure activities, cost estimates for closure, and financial responsibility for containment buildings must meet all of the requirements specified in subsections G and H of this section.

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SECTION 268 -- LAND DISPOSAL RESTRICTIONS

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Subsection A -- General

§ 268.1 Purpose, scope and applicability.

(a) This section identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be land disposed.

(b) Except as specifically provided otherwise in this section or Section 261 of this regulation, the requirements of this section apply to persons who generate or transport hazardous waste and owners and operators of hazardous waste treatment, storage, and disposal facilities.

(c) Restricted wastes may continue to be land disposed as follows:

(1) Where persons have been granted an extension to the effective date of a prohibition under Subsection C of this section or pursuant to § 268.5, with respect to those wastes covered by the extension;

(2) Where persons have been granted an exemption from a prohibition pursuant to a petition under § 268.6, with respect to those wastes and units covered by the petition;

(3) Wastes that are hazardous only because they exhibit a hazardous characteristic, and which are otherwise prohibited under this Section, or 40 CFR Part 148, are not prohibited if the wastes:

(i) Are disposed into a nonhazardous or hazardous injection well as defined under 40 CFR 146.6(a); and

(ii) Do not exhibit any prohibited characteristic of hazardous waste identified in 40 CFR 261, subpart C at the point of injection.

(4) Wastes that are hazardous only because they exhibit a hazardous characteristic, and which are otherwise prohibited under this part, are not prohibited if the wastes meet any of the following criteria, unless the wastes are subject to a specified method of treatment other than DEACT in § 268.40, or are D003 reactive cyanide:

(i) The wastes are managed in a treatment system which subsequently discharges to waters of the U.S. pursuant to a permit issued under section 402 of the Clean Water Act; or

(ii) The wastes are treated for purposes of the pretreatment requirements of section 307 of the Clean Water Act; or

(iii) The wastes are managed in a zero discharge system engaged in Clean Water Act-equivalent treatment as defined in § 268.37(a); and

(iv) The wastes no longer exhibit a prohibited characteristic at the point of land disposal (i.e., placement in a surface impoundment).

(d) The requirements of this section shall not affect the availability of a waiver under section 121(d)(4) of the federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA).

(e) The following hazardous wastes are not subject to any provision of Section 268:

(1) Waste generated by small quantity generators of less than 100 kilograms of non-acutely hazardous waste or less than 1 kilogram of acute hazardous waste per month, as defined in § 261.5 of this regulation;

(2) Waste pesticides that a farmer disposes of pursuant to § 262.70;

(3) Wastes identified or listed as hazardous after November 8, 1984 for which EPA has not promulgated land disposal prohibitions or treatment standards;

(4) De minimis losses of characteristic wastes to wastewaters are not considered to be prohibited wastes and are defined as losses from normal material handling operations (e.g. spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials); minor leaks of process equipment, storage tanks or containers; leaks from well-maintained pump packings and seals; sample purgings; and relief device discharges; discharges from safety showers and rinsing and cleaning of personal safety equipment; rinsate from empty containers or from containers that are rendered empty by that rinsing; and laboratory wastes not exceeding one per cent of the total flow of wastewater into the facility's headworks on an annual basis, or with a combined annualized average concentration not exceeding one part per million in the headworks of the facility's wastewater treatment or pretreatment facility.

(f) Universal waste handlers and universal waste transporters (as defined in § 260.10) are exempt from § 268.7 and 268.50 for the hazardous wastes listed below. These handlers are subject to regulation under § 273.

(1) Batteries as described in § 273.2;

(2) Pesticides as described in § 273.3 of this regulation;

(3) Mercury-containing devices as described in § 273.4 of this regulation;

(4) Lamps as described in § 273.5 of this

regulation.; and

(5) Consumer electronic items as described in § 273.6.

§ 268.2 Definitions applicable in this section.

When used in this section, the following terms have the meanings given below:

(a) "Halogenated organic compounds" or "HOCs" means those compounds having a carbon-halogen bond which are listed under Appendix III to this section.

(b) "Hazardous constituent or constituents" means those constituents listed in Appendix VIII to section 261 of this regulation.

(c) "Land disposal" means placement in or on the land, except in a corrective action management unit or staging pile, and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, underground mine or cave, or placement in a concrete vault, or bunker intended for disposal purposes.

(d) "Nonwastewaters" are wastes that do not meet the criteria for wastewaters in paragraph (f) of this section.

(e) "Polychlorinated biphenyls" or "PCBs" are halogenated organic compounds defined in accordance with 40 CFR 761.3.

(f) "Wastewaters" are wastes that contain less than 1% by weight total organic carbon (TOC) and less than 1% by weight total suspended solids (TSS).

(g) "Debris" means solid material exceeding a 60 mm particle size that is intended for disposal and that is: a manufactured object; or plant or animal matter; or natural geologic material. However, the following materials are not debris: any material for which a specific treatment standard is provided in Subsection D, Section 268, namely lead acid batteries, cadmium batteries, and radioactive lead solids; process residuals such as smelter slag and residues from the treatment of waste, wastewater, sludges, or air emission residues; and intact containers of hazardous waste that are not ruptured and that retain at least 75% of their original volume. A mixture of debris that has not been treated to the standards provided by § 268.45 and other material is subject to regulation as debris if the mixture is comprised primarily of debris, by volume, based on visual inspection.

(h) "Hazardous debris" means debris that contains a hazardous waste listed in subsection D of section 261 of this regulation, or that exhibits a characteristic of hazardous waste identified in subsection C of section 261 of this regulation. Any deliberate mixing of prohibited hazardous waste with debris that changes its treatment classification (i.e., from waste to hazardous debris) is not allowed under the dilution prohibition in § 268.3.

(i) "Underlying hazardous constituent" means any constituent listed in § 268.48, Table UTS-Universal Treatment Standards, except flouride, selenium, sulfides, vanadium, and zinc, which can reasonably be expected to be present at the point of generation of the hazardous waste, at a

concentration above the constituent-specific UTS treatment standard.

(j) “Inorganic metal-bearing waste” is one for which EPA has established treatment standards for metal hazardous constituents, and which does not otherwise contain significant organic or cyanide content as described in § 268.3(c)(1), and is specifically listed in Appendix XI of this section.

(k) “Soil” means unconsolidated earth material composing the superficial geologic strata (material overlying bedrock), consisting of clay, silt, sand, or gravel size particles as classified by the U.S. Natural Resources Conservation Service, or a mixture of such materials with liquids, sludges or solids which is inseparable by simple mechanical removal processes and is made up primarily of soil by volume based on visual inspection. Any deliberate mixing of prohibited hazardous waste with soil that changes its treatment classification (i.e., from waste to contaminated soil) is not allowed under the dilution prohibition in § 268.3.

§ 268.3 Dilution prohibited as a substitute for treatment.

(a) Except as provided in paragraph (b) of this section, no generator, transporter, handler, or owner or operator of a treatment, storage, or disposal facility shall in any way dilute a restricted waste or the residual from treatment of a restricted waste as a substitute for adequate treatment to achieve compliance with subsection D of this section, to circumvent the effective date of a prohibition in subsection C of this section, to otherwise avoid a prohibition in subsection C of this section, or to circumvent a land disposal prohibition imposed by RCRA section 3004.

(b) Dilution of wastes that are hazardous only because they exhibit a characteristic in treatment systems which include land-based units which treat wastes subsequently discharged to a water of the United States pursuant to a permit issued under section 402 of the Clean Water Act (CWA), or which treat wastes in a CWA-equivalent treatment system, or which treat wastes for the purposes of pretreatment requirements under section 307 of the CWA is not impermissible dilution for purposes of this section unless a method other than DEACT has been specified in § 268.40 as the treatment standard, or unless the waste is a D003 reactive cyanide wastewater or nonwastewater.

(c) Combustion of the hazardous waste codes listed in Appendix XI of this Section is prohibited, unless the waste, at the point of generation, or after any bona fide treatment such as cyanide destruction prior to combustion, can be demonstrated to comply with one or more of the following criteria (unless otherwise specifically prohibited from combustion):

- (1) the waste contains hazardous organic constituents or cyanide at levels exceeding the constituent-specific treatment standard found in § 268.48;
- (2) The waste consists of organic, debris-like

materials (e.g., wood, paper, plastic, or cloth) contaminated with an inorganic metal-bearing hazardous waste;

(3) The waste, at point of generation, has reasonable heating value such as greater than or equal to 5000 BTU per pound;

(4) The waste is co-generated with wastes for which combustion is a required method of treatment;

(5) The waste is subject to Federal and/or State requirements necessitating reduction of organics (including biological agents); or

(6) The waste contains greater than 1% Total Organic Carbon (TOC).

(d) It is a form of impermissible dilution, and therefore prohibited, to add iron filings or other metallic forms of iron to lead-containing hazardous wastes in order to achieve any land disposal restriction treatment standard for lead. Lead-containing wastes include D008 wastes (wastes exhibiting a characteristic due to the presence of lead), all characteristic wastes containing lead as an underlying hazardous constituent, listed wastes containing lead as a regulated constituent, and hazardous media containing any of the aforementioned lead-containing wastes.

§ 268.4 Treatment surface impoundment exemption.

(a) Wastes which are otherwise prohibited from land disposal under this section may be treated in a surface impoundment or series of impoundments provided that:

(1) Treatment of such wastes occurs in the impoundments;

(2) The following conditions are met:

(i) Sampling and testing. For wastes with treatment standards in Subsection D of this section and/or prohibition levels in Subsection C of this section or RCRA section 3004(d), the residues from treatment are analyzed, as specified in § 268.7 or § 268.32, to determine if they meet the applicable treatment standards or where no treatment standards have been established for the waste, the applicable prohibition levels. The sampling method, specified in the waste analysis plan under § 264.13 or § 265.13, must be designed such that representative samples of the sludge and the supernatant are tested separately rather than mixed to form homogeneous samples.

(ii) Removal. The following treatment residues (including any liquid waste) must be removed at least annually; residues which do not meet the treatment standards promulgated under subsection D of this section; residues which do not meet the prohibition levels established under subsection C of this section or imposed by statute (where no treatment

standards have been established); residues which are from the treatment of wastes prohibited from land disposal under subsection C of this section (where no treatment standards have been established and no prohibition levels apply); or residues from managing listed wastes which are not delisted under § 260.22 of this regulation. If the volume of liquid flowing through the impoundment or series of impoundments annually is greater than the volume of the impoundment or impoundments, this flow-through constitutes removal of the supernatant for the purpose of this requirement.

(iii) Subsequent management. Treatment residues may not be placed in any other surface impoundment for subsequent management.

(iv) Recordkeeping: Sampling and testing and recordkeeping provisions of §§ 264.13 and 265.13 of this regulation apply.

(3) The impoundment meets the design requirements of § 264.221(c) or § 265.221(a) of this regulation, regardless that the unit may not be new, expanded, or a replacement, and be in compliance with applicable ground water monitoring requirements of Subsection F of Section 264 or Section 265 of this regulation unless:

(i) Exempted pursuant to § 264.221 (d) or (e) of this regulation, or to § 265.221 (c) or (d) of this regulation; or,

(ii) Upon application by the owner or operator, the Director, after notice and an opportunity to comment, has granted a waiver of the requirements on the basis that the surface impoundment:

(A) Has at least one liner, for which there is no evidence that such liner is leaking;

(B) Is located more than one-quarter mile from an underground source of drinking water; and

(C) Is in compliance with generally applicable ground water monitoring requirements for facilities with permits; or,

(iii) Upon application by the owner or operator, the Director, after notice and an opportunity to comment, has granted a modification to the requirements on the basis of a demonstration that the surface impoundment is located, designed, and operated so as to assure that there will be no migration of any hazardous constituent into ground water or surface water at any future time.

(4) The owner or operator submits to the Director a written certification that the requirements of § 268.4(a)(3) have been met. The following certification is required:

I certify under penalty of law that the requirements of Regulation No. 23 § 268.4(a)(3) have been met for all surface impoundments being used to treat restricted wastes. I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(b) Evaporation of hazardous constituents as the principal means of treatment is not considered to be treatment for purposes of an exemption under this section.

§ 268.5 Procedures for case-by-case extensions to an effective date.

(a) Any person who generates, treats, stores, or disposes of a hazardous waste may submit an application to the EPA Administrator for an extension to the effective date of any applicable restriction established under Subsection C of this section. The applicant must demonstrate the following:

(1) He has made a good-faith effort to locate and contract with treatment, recovery, or disposal facilities nationwide to manage his waste in accordance with the effective date of the applicable restriction established under Subsection C of this section;

(2) He has entered into a binding contractual commitment to construct or otherwise provide alternative treatment, recovery (e.g., recycling), or disposal capacity that meets the treatment standards specified in Subsection D or, where treatment standards have not been specified, such treatment, recovery, or disposal capacity is protective of human health and the environment.

(3) Due to circumstances beyond the applicant's control, such alternative capacity cannot reasonably be made available by the applicable effective date. This demonstration may include a showing that the technical and practical difficulties associated with providing the alternative capacity will result in the capacity not being available by the applicable effective date;

(4) The capacity being constructed or otherwise provided by the applicant will be sufficient to manage the entire quantity of waste that is the subject of the application;

(5) He provides a detailed schedule for obtaining required operating and construction permits or an outline of how and when alternative capacity will be available;

(6) He has arranged for adequate capacity to manage his waste during an extension and has documented in the application the location of all sites at which the waste will be managed; and

(7) Any waste managed in a surface impoundment or landfill during the extension period will meet the requirements of paragraph (h)(2) of this section.

(b) An authorized representative signing an application described under paragraph (a) of this section shall make the

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following certification:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(c) After receiving an application for an extension, the Administrator may request any additional information which he deems as necessary to evaluate the application.

(d) An extension will apply only to the waste generated at the individual facility covered by the application and will not apply to restricted waste from any other facility.

(e) On the basis of the information referred to in paragraph (a) of this section, after notice and opportunity for comment, and after consultation with appropriate State agencies in all affected States, the Administrator may grant an extension of up to 1 year from the effective date. The Administrator may renew this extension for up to 1 additional year upon the request of the applicant if the demonstration required in paragraph (a) of this section can still be made. In no event will an extension extend beyond 24 months from the applicable effective date specified in Subsection C of section 268. The length of any extension authorized will be determined by the Administrator based on the time required to construct or obtain the type of capacity needed by the applicant as described in the completion schedule discussed in paragraph (a)(5) of this section. The Administrator will give public notice of the intent to approve or deny a petition and provide an opportunity for public comment. The final decision on a petition will be published in the *Federal Register*.

(f) Any person granted an extension under this section must immediately notify the Administrator as soon as he has knowledge of any change in the conditions certified to in the application.

(g) Any person granted an extension under this section shall submit written progress reports at intervals designated by the Administrator. Such reports must describe the overall progress made toward constructing or otherwise providing alternative treatment, recovery or disposal capacity; must identify any event which may cause or has caused a delay in the development of the capacity; and must summarize the steps taken to mitigate the delay. The Administrator can revoke the extension at any time if the applicant does not demonstrate a good-faith effort to meet the schedule for completion, if the Agency denies or revokes any required permit, if conditions certified in the application change, or for any violation of this regulation.

(h) Whenever the Administrator establishes an extension to an effective date under this section, during the period for which such extension is in effect:

(1) The storage restrictions under § 268.50(a) do not apply; and

(2) Such hazardous waste may be disposed in a landfill or surface impoundment only if such unit is in compliance with the technical requirements of the following provisions regardless of whether such

unit is existing, new, or a replacement or lateral expansion.

(i) The landfill, if in interim status, is in compliance with the requirements of Subsection F of section 265 and § 265.301 (a), (c), and (d) of this regulation; or,

(ii) The landfill, if permitted, is in compliance with the requirements of Subsection F of section 264 and § 264.301 (c), (d) and (e) of this regulation; or

(iii) The surface impoundment, if in interim status, is in compliance with the requirements of Subsection F of section 265, § 265.221 (a), (c), and (d) of this regulation, and RCRA section 3005(j)(1); or

(iv) The surface impoundment, if permitted, is in compliance with the requirements of Subsection F of section 264 and § 264.221 (c), (d) and (e) of this regulation; or

(v) The surface impoundment, if newly subject to RCRA section 3005(j)(1) due to the promulgation of additional listings or characteristics for the identification of hazardous waste, is in compliance with the requirements of Subsection F of section 265 of this regulation within 12 months after the promulgation of additional listings or characteristics of hazardous waste, and with the requirements of § 265.221 (a), (c) and (d) of this regulation within 48 months after the promulgation of additional listings or characteristics of hazardous waste. If a national capacity variance is granted, during the period the variance is in effect, the surface impoundment, if newly subject to RCRA section 3005(j)(1) due to the promulgation of additional listings or characteristics of hazardous waste, is in compliance with the requirements of Subsection F of section 265 of this regulation within 12 months after the promulgation of additional listings or characteristics of hazardous waste, and with the requirements of § 265.221 (a), (c) and (d) of this regulation within 48 months after the promulgation of additional listings or characteristics of hazardous waste; or

(vi) The landfill, if disposing of containerized liquid hazardous wastes containing PCBs at concentrations greater than or equal to 50 ppm but less than 500 ppm, is also in compliance with the requirements of 40 CFR 761.75 and sections 264 and 265 of this regulation.

(i) Pending a decision on the application the applicant is required to comply with all restrictions on land disposal under this section once the effective date for the waste has been reached.

§ 268.6 Petitions to allow land disposal of a waste prohibited under Subsection C of Section 268.

(a) Any person seeking an exemption from a prohibition under Subsection C of this section for the disposal of a restricted hazardous waste in a particular unit or units must submit a petition to the EPA Administrator demonstrating, to a reasonable degree of certainty, that there will be no migration of hazardous constituents from the disposal unit or injection zone for as long as the wastes remain hazardous. The demonstration must include the following components:

- (1) An identification of the specific waste and the specific unit for which the demonstration will be made;
- (2) A waste analysis to describe fully the chemical and physical characteristics of the subject waste;
- (3) A comprehensive characterization of the disposal unit site including an analysis of background air, soil, and water quality;
- (4) A monitoring plan that detects migration at the earliest practicable time;
- (5) Sufficient information to assure the Administrator that the owner or operator of a land disposal unit receiving restricted waste(s) will comply with other applicable Federal, State, and local laws.

(b) The demonstration referred to in paragraph (a) of this section must meet the following criteria:

- (1) All waste and environmental sampling, test, and analysis data must be accurate and reproducible to the extent that state-of-the-art techniques allow;
- (2) All sampling, testing, and estimation techniques for chemical and physical properties of the waste and all environmental parameters must have been approved by the Administrator;
- (3) Simulation models must be calibrated for the specific waste and site conditions, and verified for accuracy by comparison with actual measurements;
- (4) A quality assurance and quality control plan that addresses all aspects of the demonstration must be approved by the Administrator; and,
- (5) An analysis must be performed to identify and quantify any aspects of the demonstration that contribute significantly to uncertainty. This analysis must include an evaluation of the consequences of predictable future events, including, but not limited to, earthquakes, floods, severe storm events, droughts, or other natural phenomena.

(c) Each petition referred to in paragraph (a) of this section must include the following:

- (1) A monitoring plan that describes the monitoring program installed at and/or around the unit to verify continued compliance with the conditions of the variance. This monitoring plan must provide information on the monitoring of the unit and/or the environment around the unit. The

following specific information must be included in the plan:

- (i) The media monitored in the cases where monitoring of the environment around the unit is required;
- (ii) The type of monitoring conducted at the unit, in the cases where monitoring of the unit is required;
- (iii) The location of the monitoring stations;
- (iv) The monitoring interval (frequency of monitoring at each station);
- (v) The specific hazardous constituents to be monitored;
- (vi) The implementation schedule for the monitoring program;
- (vii) The equipment used at the monitoring stations;
- (viii) The sampling and analytical techniques employed; and
- (ix) The data recording/reporting procedures.

(2) Where applicable, the monitoring program described in paragraph (c)(1) of this section must be in place for a period of time specified by the Administrator, as part of his approval of the petition, prior to receipt of prohibited waste at the unit.

(3) The monitoring data collected according to the monitoring plan specified under paragraph (c)(1) of this section must be sent to the Administrator according to a format and schedule specified and approved in the monitoring plan, and

(4) A copy of the monitoring data collected under the monitoring plan specified under paragraph (c)(1) of this section must be kept on-site at the facility in the operating record.

(5) The monitoring program specified under paragraph (c)(1) of this section meets the following criteria:

- (i) All sampling, testing, and analytical data must be approved by the Administrator and must provide data that is accurate and reproducible.
- (ii) All estimation and monitoring techniques must be approved by the Administrator.
- (iii) A quality assurance and quality control plan addressing all aspects of the monitoring program must be provided to and approved by the Administrator.

(d) Each petition must be submitted to the Administrator.

(e) After a petition has been approved, the owner or operator must report any changes in conditions at the unit and/or the environment around the unit that significantly depart from the conditions described in the variance and affect the potential for migration of hazardous constituents from the units as follows:

- (1) If the owner or operator plans to make changes to the unit design, construction, or operation, such a change must be proposed, in writing, and the owner

or operator must submit a demonstration to the Administrator at least 30 days prior to making the change. The Administrator will determine whether the proposed change invalidates the terms of the petition and will determine the appropriate response. Any change must be approved by the Administrator prior to being made.

(2) If the owner or operator discovers that a condition at the site which was modeled or predicted in the petition does not occur as predicted, this change must be reported, in writing, to the Administrator within 10 days of discovering the change. The Administrator will determine whether the reported change from the terms of the petition requires further action, which may include termination of waste acceptance and revocation of the petition, petition modifications, or other responses.

(f) If the owner or operator determines that there is migration of hazardous constituent(s) from the unit, the owner or operator must:

(1) Immediately suspend receipt of prohibited waste at the unit, and

(2) Notify the Administrator, in writing, within 10 days of the determination that a release has occurred.

(3) Following receipt of the notification the Administrator will determine, within 60 days of receiving notification, whether the owner or operator can continue to receive prohibited waste in the unit and whether the variance is to be revoked. The Administrator shall also determine whether further examination of any migration is warranted under applicable provisions of section 264 or section 265.

(g) Each petition must include the following statement signed by the petitioner or an authorized representative:

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this petition and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

(h) After receiving a petition, the Administrator may request any additional information that reasonably may be required to evaluate the demonstration.

(i) If approved, the petition will apply to land disposal of the specific restricted waste at the individual disposal unit described in the demonstration and will not apply to any other restricted waste at that disposal unit, or to that specific restricted waste at any other disposal unit.

(j) The Administrator will give public notice in the *Federal Register* of the intent to approve or deny a petition and provide an opportunity for public comment. The final decision on a petition will be published in the *Federal Register*.

(k) The term of a petition granted under this section shall be no longer than the term of the RCRA permit if the disposal

unit is operating under a RCRA permit, or up to a maximum of 10 years from the date of approval provided under paragraph (g) of this section if the unit is operating under interim status. In either case, the term of the granted petition shall expire upon the termination or denial of a RCRA permit, or upon the termination of interim status or when the volume limit of waste to be land disposed during the term of petition is reached.

(l) Prior to the Administrator's decision, the applicant is required to comply with all restrictions on land disposal under this section once the effective date for the waste has been reached.

(m) The petition granted by the Administrator does not relieve the petitioner of his responsibilities in the management of hazardous waste under this Regulation and 40 CFR parts 260 through part 271.

(n) Liquid hazardous wastes containing polychlorinated biphenyls at concentrations greater than or equal to 500 ppm are not eligible for an exemption under this section.

§ 268.7 Testing, tracking, and recordkeeping requirements for generators, treaters, and disposal facilities.

(a) Requirements for generators:

(1) A generator of hazardous waste must determine if the waste has to be treated before it can be land disposed. This is done by determining if the hazardous waste meets the treatment standards in §268.40, §268.45, or §268.49. This determination can be made concurrently with the hazardous waste determination required in § 262.11 of this regulation, in either of two ways: testing the waste or using knowledge of the waste. If the generator tests the waste, testing would normally determine the total concentration of hazardous constituents, or the concentration of hazardous constituents in an extract of the waste obtained using test method 1311 in "Test Methods of Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, (incorporated by reference, see § 260.11 of this regulation), depending on whether the treatment standard for the waste is expressed as a total concentration or concentration of hazardous constituent in the waste's extract. (Alternatively, the generator must send the waste to a RCRA-permitted hazardous waste treatment facility, where the waste treatment facility must comply with the requirements of § 264.13 of this regulation and paragraph (b) of this section.) In addition, some hazardous wastes must be treated by particular treatment methods before they can be land disposed and some soils are contaminated by such hazardous wastes. These treatment standards are also found in §268.40, and are described in detail in §268.42, Table 1. These wastes, and soils contaminated with

such wastes, do not need to be tested (however, if they are in a waste mixture, other wastes with concentration level treatment standards would have to be tested). If a generator determines they are managing a waste or soil contaminated with a waste, that displays a hazardous characteristic of ignitability, corrosivity, reactivity, or toxicity, they must comply with the special requirements of §268.9 of this section in addition to any applicable requirements in this section.

(2) If the waste or contaminated soil does not meet the treatment standard: With the initial shipment of waste to each treatment or storage facility, the generator must send a one-time written notice to each treatment or storage facility receiving the waste, and place a copy in the file. The notice must include the information in column “268.7(a)(2)” of the Generator Paperwork Requirements Table in § 268.7(a)(4). No further notification is necessary until such time that the waste or facility changes, in which case a new notification must be sent and a

copy placed in the generator’s file.

(i) For contaminated soil, the following certification statement should be included, signed by an authorized representative:

I certify under penalty of law that I personally have examined this contaminated soil and it [does/does not] contain listed hazardous waste and [does/does not] exhibit a characteristic of hazardous waste and requires treatment to meet the soil treatment standards as provided by § 268.49(c).

(ii) [Reserved]

(3) If the waste or contaminated soil meets the treatment standard at the original point of generation:

(i) With the initial shipment of waste to each treatment, storage, or disposal facility, the generator must send a one-time written notice to each treatment, storage, or disposal facility receiving the waste, and place a copy in the file. The notice must include the information indicated in column “268.7(a)(3)” of the Generator Paperwork Requirements Table in § 268.7(a)(4) and the following certification

§ 268.7(a)(4) Generator Paperwork Requirements Table

Required Information	268.7 (a)(2)	268.7 (a)(3)	268.7 (a)(4)	268.7 (a)(9)
1. EPA Hazardous Waste Numbers and Manifest Number of first shipment	X	X	X	X
2. Statement: "this waste is not prohibited from land disposal."			X	
3. The waste is subject to the LDRs. The constituents of concern for F001-F005 and F039, and underlying hazardous constituents in characteristic wastes, unless the waste will be treated and monitored for all constituents. If all constituents will be treated and monitored, there is no need to put them all on the LDR notice.	X	X		
4. The notice must include the applicable wastewater/nonwastewater category (see 268.2(d) and (f)) and such subdivisions made within a waste code based on waste-specific criteria(such as D003 reactive cyanide).	X	X		
5. Waste analysis data (when available).	X	X	X	
6. Date the waste is subject to the prohibition.			X	
7. For hazardous debris, when treating with the alternative treatment standards provided by 268.45: the contaminants subject to treatment, as described in 268.45(b); and an indication that these contaminants are being treated to comply with 268.45.	X		X	
8. For contaminated soil subject to LDRs as provided in 268.49(a), the constituents subject to treatment as described in 268.49(d), and the following statement: "This contaminated soil does (or does not) contain listed hazardous waste and does (or does not) exhibit a characteristic of a hazardous waste and is subject to (or complies with) the soil treatment standards as provided by 268.49(c) or the universal treatment standards."	X	X		
9. A certification is needed (see applicable section for exact wording).		X		X

statement, signed by an authorized representative:

I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR Part 268 subpart D. I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

(ii) For contaminated soil, with the initial shipment of wastes to each treatment, storage, or disposal facility, the generator must send a one-time written notice to each facility receiving the waste and place a copy in the file. The notice must include the information in column “268.7(a)(3) of the Generator Paperwork Requirements Table in § 268.7(a)(4).

(iii) If the waste changes, the generator must send a new notice and certification to the receiving facility, and place a copy in their files. Generators of hazardous debris excluded from the definition of hazardous waste under § 261.3(f) of this regulation are not subject to these requirements.

(4) For reporting, tracking, and recordkeeping when exceptions allow certain wastes or contaminated soil that do not meet the treatment standards to be land disposed: There are certain exemptions from the requirement that hazardous wastes or contaminated soil meet treatment standards before they can be land disposed. These include, but are not limited to case-by-case extensions under § 268.5, disposal in a no-migration unit under § 268.6, or a national capacity variance or case-by-case capacity variance under subpart C of this part. If a generator’s waste is so exempt, then with the initial shipment of waste, the generator must send a one-time written notice to each land disposal facility receiving the waste. The notice must include the information indicated in column “268.7(a)(4)” of the Generator Paperwork Requirements Table in this section. If the waste changes, the generator must send a new notice to the receiving facility, and place a copy in their files.

(5) If a generator is managing and treating prohibited waste or contaminated soil in tanks, containers, or containment buildings regulated under § 262.34 to meet applicable LDR treatment standards found at § 268.40, the generator must develop and follow a written waste analysis plan which describes the procedures they will carry out to comply with the treatment standards. (Generators treating hazardous debris under the alternative treatment standards of Table 1, § 268.45, however, are not subject to these waste analysis requirements.) The plan must be kept on site in the generator’s records, and the following

requirements must be met:

(i) The waste analysis plan must be based on a detailed chemical and physical analysis of a representative sample of the prohibited waste(s) being treated, and contain all information necessary to treat the waste(s) in accordance with the requirements of this section, including the selected testing frequency.

(ii) Such plan must be kept in the facility’s on-site files and made available to inspectors.

(iii) Wastes shipped off-site pursuant to this paragraph must comply with the notification requirements of § 268.7(a)(3).

(6) If a generator determines that the waste is restricted based solely on his knowledge of the waste, all supporting data used to make this determination must be retained on-site in the generator’s files. If a generator determines that the waste is restricted based on testing this waste or an extract developed using the test method 1311 in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846, as referenced in § 260.11 of this regulation, all waste analysis data must be retained on-site in the generator’s files.

(7) If a generator determines that he is managing a restricted waste that is excluded from the definition of hazardous or solid waste or exempt from Subtitle C regulation, under §§ 261.2 through 261.6 subsequent to the point of generation (including deactivated characteristic hazardous wastes managed in wastewater treatment systems subject to the Clean Water Act (CWA) as specified at § 261.4(a)(2), or are CWA-equivalent), he must place a one-time notice stating such generation, subsequent exclusion from the definition of hazardous or solid waste or exemption from RCRA Subtitle C regulation, and the disposition of the waste, in the facility’s file.

(8) Generators must retain on-site a copy of all notices, certifications, waste analysis data, and other documentation produced pursuant to this section for at least three (3) years from the date that the waste that is the subject of such documentation was last sent to on-site or off-site treatment, storage, or disposal. The three year record retention period is automatically extended during the course of any unresolved enforcement action regarding the regulated activity or as requested by the Director. The requirements of this paragraph apply to solid wastes even when the hazardous characteristic is removed prior to disposal, or when the waste is excluded from the definition of hazardous or solid waste under §§ 261.2 through 261.6, or exempted from Subtitle C regulation, subsequent to the point of generation.

(9) If a generator is managing a lab pack

containing hazardous wastes and wishes to use the alternative treatment standard for lab packs found at § 268.42(c):

(i) With the initial shipment of waste to a treatment facility, the generator must submit a notice that provides the information in column “§ 268.7(a)(9)” in the Generator Paperwork Requirements Table of paragraph (a)(4) of this section, and the following certification. The certification, which must be signed by an authorized representative and must be placed in the generator’s files, must say the following:

I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only wastes that have not been excluded under Appendix IV to 40 CFR section 268 and that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at 40 CFR 268.42(c). I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

(ii) No further notification is necessary until such time that the wastes in the lab pack change, or the receiving facility changes, in which case a new notice and certification must be sent and a copy placed in the generator’s file.

(iii) If the lab pack contains characteristic hazardous wastes (D001-D043), underlying hazardous constituents (as defined in § 268.2(i)) need not be determined.

(iv) The generator must also comply with the requirements in paragraphs (a)(6) and (a)(7) of this section.

(10) [Reserved]

(b) Treatment facilities must test their wastes according to the frequency specified in their waste analysis plans as required by § 264.13 (for permitted TSDs) or § 265.13 (for interim status facilities). Such testing must be performed as provided in paragraphs (b)(1), (b)(2) and (b)(3) of this section.

(1) For wastes with treatment standards expressed as concentrations in the waste extract (TCLP), the owner or operator of the treatment facility must test an extract of the treatment residues, using test method 1311 (the Toxicity Characteristic Leaching Procedure, described in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW-846 as incorporated by reference in § 260.11 of this regulation), to assure that the treatment residues extract meet the applicable treatment standards.

(2) For wastes with treatment standards expressed as concentrations in the waste, the owner or operator of the treatment facility must test the treatment residues (not an extract of such residues) to assure that they meet the applicable treatment standards.

(3) A one-time notice must be sent with the initial shipment of waste to the land disposal facility. A

TSDF Paperwork Requirements Table

Required information	268.7(b)
1. EPA Hazardous Waste and Manifest numbers	X
2. The waste is subject to the LDRs. The constituents of concern for F001-F005, and F039, and underlying hazardous constituents (for wastes that are not managed in a Clean Water Act (CWA) or CWA-equivalent facility), unless the waste will be treated and monitored for all constituents. If all constituents will be treated and monitored, there is no need to put them all on the LDR notice	X
3. The notice must include the applicable wastewater/nonwastewater category (see " 268.2(d) and (f)) and subdivisions made within a waste code based on waste-specific criteria (such as D003 reactive cyanide)	X
4. Waste analysis data (when available)	X
5. A certification statement is needed (see applicable section for exact wording)	X

copy of the notice must be placed in the treatment facility’s file.

(i) No further notification is necessary until such time that the waste or receiving facility change, in which case a new notice must be sent and a copy placed in the treatment facility’s file.

(ii) The one-time notice must include these requirements: (*see table at right*)

(4) The treatment facility must submit a one-time certification signed by an authorized representative with the initial shipment of waste or treatment residue of a restricted waste to the land disposal facility. The certification must state:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards specified in 40 CFR 268.40 without impermissible dilution of the prohibited waste. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

A certification is also necessary for contaminated soil and it must state:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and believe that it has been maintained and operated properly so as to comply with treatment standards specified in 40 CFR 268.49 without impermissible dilution of the prohibited wastes. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(i) A copy of the certification must be placed in the treatment facility's on-site files. If the waste or treatment residue changes, or the receiving facility changes, a new certification must be sent to the receiving facility, and a copy placed in the file.

(ii) Debris excluded from the definition of hazardous waste under § 261.3(e) of this regulation (i.e., debris treated by an extraction or destruction technology provided by Table 1, § 268.45, and debris that the Director has determined does not contain hazardous waste), however, is subject to the notification and certification requirements of paragraph (d) of this section rather than the certification requirements of this paragraph.

(iii) For wastes with organic constituents having treatment standards expressed as concentration levels, if compliance with the treatment standards is based in whole or in part on the analytical detection limit alternative specified in § 268.40(d), the certification, signed by an authorized representative, must state the following:

I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by combustion units as specified in § 268.42, Table 1. I have been unable to detect the nonwastewater organic constituents, despite having used best good-faith efforts to analyze for such constituents. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(iv) For characteristic wastes that are subject to the treatment standards in § 268.40 (other than those expressed as a method of treatment), or § 268.49, and that contain underlying hazardous constituents as defined in § 268.2(i); if these wastes are treated on-site to remove the hazardous characteristic; and are then sent off-site for treatment of underlying hazardous constituents, the certification must state the following:

I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 or 268.49 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(v) For characteristic wastes that contain underlying hazardous constituents as defined at § 268.2(i) that are treated on-site to remove the hazardous characteristic to treat underlying hazardous constituents to levels in § 268.48 Universal Treatment Standards, the certification must state the following:

I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 to remove the hazardous characteristic and that underlying hazardous constituents, as defined in § 268.2(i) have been treated on-site to meet the § 268.48 Universal Treatment Standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

(5) If the waste or treatment residue will be further managed at a different treatment, storage, or disposal facility, the treatment, storage, or disposal facility sending the waste or treatment residue off-site must comply with the notice and certification requirements applicable to generators under this section.

(6) Where the wastes are recyclable materials used in a manner constituting disposal subject to the provisions of § 268.20(b) regarding treatment standards and prohibition levels, the owner or operator of a treatment facility (i.e., the recycler) must, for the initial shipment of waste, prepare a one-time certification described in paragraph (b)(4) of this section, and a one-time notice which includes the information in paragraph (b)(3) of this section (except the manifest number). The certification and notification must be placed in the facility's on-site files. If the waste or the receiving facility changes, a new certification and notification must be prepared and placed in the on site files. In addition, the recycling facility must also keep records of the name and location of each entity receiving the hazardous waste-derived product.

(c) Except where the owner or operator is disposing of any waste that is a recyclable material used in a manner constituting disposal pursuant to § 266.20(b), the owner or operator of any land disposal facility disposing any waste subject to restrictions under this part must:

(1) Have copies of the notice and certifications specified in paragraph (a) or (b) of this section.

(2) Test the waste, or an extract of the waste or treatment residue developed using test method 1311 (the Toxicity Characteristic Leaching Procedure, described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846 as incorporated by reference in § 260.11 of this chapter), to assure that the wastes or treatment residues are in compliance with the applicable treatment standards set forth in subsection D of this Section. Such testing must be performed according to the frequency specified in the facility's waste analysis plan as required by § 264.13 or § 265.13 of this regulation.

(d) Generators or treaters who first claim that hazardous debris is excluded from the definition of hazardous waste under § 261.3(f) of this regulation (i.e., debris treated by an extraction or destruction technology provided by Table 1, § 268.45, and debris that the EPA Regional Administrator (or his designated representative) or State authorized to implement 40 CFR Part 268 requirements has determined does not contain hazardous waste) are subject to the following notification and certification requirements:

(1) A one-time notification, including the following information, must be submitted to the ADEQ.

(i) The name and address of the RCRA Subtitle D facility receiving the treated debris;

(ii) A description of the hazardous debris as initially generated, including the applicable EPA Hazardous Waste Number(s); and

(iii) For debris excluded under § 261.3(f)(1) of this regulation, the technology from Table 1, § 268.45, used to treat the debris.

(2) The notification must be updated if the debris is shipped to a different facility, and, for debris excluded under § 261.3(f)(1) of this chapter, if a different type of debris is treated or if a different technology is used to treat the debris.

(3) For debris excluded under § 261.3(f)(1) of this chapter, the owner or operator of the treatment facility must document and certify compliance with the treatment standards of Table 1, § 268.45, as follows:

(i) Records must be kept of all inspections, evaluations, and analyses of treated debris that are made to determine compliance with the treatment standards;

(ii) Records must be kept of any data or information the treater obtains during treatment of the debris that identifies key operating parameters of the treatment unit; and

(iii) For each shipment of treated debris, a certification of compliance with the treatment standards must be signed by an authorized representative and placed in the facility's files. The certification must state the following: "I certify under penalty of law that the debris has been treated in accordance with the requirements of 40 CFR 268.45. I am aware that there are significant penalties for making a false certification, including the possibility of fine and imprisonment."

(e) Generators and treaters who first receive from EPA or ADEQ a determination that a given contaminated soil subject to LDRs as provided in § 268.49(a) no longer contains a listed hazardous waste and generators and treaters who first determine that a contaminated soil subject to LDRs as provided in § 268.49(a) no longer exhibits a characteristic of hazardous waste must:

(1) Prepare a one-time only documentation of these determinations including all supporting information; and,

(2) Maintain that information in the facility files and other records for a minimum of three years.

§ 268.8 [Reserved]

§ 268.9 Special rules regarding wastes that exhibit a characteristic.

(a) The initial generator of a solid waste must determine each EPA Hazardous Waste Number (waste code) applicable to the waste in order to determine the applicable treatment standards under subsection D of this section. This determination may be made concurrently with the hazardous waste determination required in § 262.11 of this regulation. For the purposes of Section 268, the waste will carry the waste code for any applicable listed waste (Section 261, Subsection D). In addition, where the waste exhibits a characteristic, the waste will carry one or more of the characteristic waste codes (Section 261, Subsection C), except when the treatment standard for the listed waste operates in lieu of the treatment standard for the characteristic waste, as specified in paragraph (b) of this section. If the generator determines that their waste displays a hazardous characteristic (and is not D001 nonwastewaters treated by CMBST, RORGS, OR POLYM of § 268.42, Table 1), the generator must determine the underlying hazardous constituents (as defined at § 268.2(i)) in the characteristic waste.

(b) Where a prohibited waste is both listed under section 261, Subsection D and exhibits a characteristic under section 261, Subsection C, the treatment standard for the waste code listed in section 261, Subsection D will operate in lieu of the standard for the waste code under section 261, Subsection C, provided that the treatment standard for the listed waste includes a treatment standard for the constituent that causes the waste to exhibit the characteristic. Otherwise, the waste must meet the treatment standards for all applicable listed and characteristic waste codes.

(c) In addition to any applicable standards determined from the initial point of generation, no prohibited waste which exhibits a characteristic under section 261, Subsection C may be land disposed unless the waste complies with the treatment standards under Subsection D of this section.

(d) Wastes that exhibit a characteristic are also subject to § 268.7 requirements, except that once the waste is no longer hazardous, a one-time notification and certification must be placed in the generator's or treater's on-site files. The notification and certification that is placed in the generator's or treater's files must be updated if the process or operation generating the waste changes and/or if the subtitle D facility receiving the waste changes.

(1) The notification must include the following information:

(i) Name and address of the RCRA Subtitle D facility receiving the waste shipment; and

(ii) A description of the waste as initially generated, including the applicable EPA hazardous waste code(s), treatability group(s), and underlying hazardous constituents (as defined in § 268.2(i)), unless the waste will be treated and monitored for all underlying hazardous constituents. If all underlying hazardous constituents will be treated and monitored, there is no requirement to list any of the underlying hazardous constituents on the notice.

(2) The certification must be signed by an authorized representative and must state the language found in § 268.7(b)(4).

(i) If treatment removes the characteristic but does not meet standards applicable to underlying hazardous constituents, then the certification found in § 268.7(b)(4)(iv) applies.

(ii) [Reserved]

Subsection B -- Schedule for Land Disposal Prohibition and Establishment of Treatment Standards

§ 268.10 [Reserved]

§ 268.11 [Reserved]

§ 268.12 [Reserved]

§ 268.13 Schedule for wastes identified or listed after November 8, 1984.

In the case of any hazardous waste identified or listed under RCRA Section 3001 after November 8, 1984, the Administrator shall make a land disposal prohibition determination within 6 months after the date of identification or listing.

§ 268.14 Surface impoundment exemptions.

(a) This section defines additional circumstances under which an otherwise prohibited waste may continue to be placed in a surface impoundment.

(b) Wastes which are newly identified or listed under section 3001 after November 8, 1984, and stored in a surface impoundment that is newly subject to Subtitle C of RCRA as a result of the additional identification or listing, may continue to be stored in the surface impoundment for 48 months after the promulgation of the additional listing or characteristic, notwithstanding that the waste is otherwise prohibited from land disposal, provided that the surface impoundment is in compliance with the requirements of Subsection F of Section

265 of this regulation within 12 months after promulgation of the new listing or characteristic.

(c) Wastes which are newly identified or listed under section 3001 after November 8, 1984, and treated in a surface impoundment that is newly subject to subtitle C of RCRA as a result of the additional identification or listing, may continue to be treated in that surface impoundment, notwithstanding that the waste is otherwise prohibited from land disposal, provided that surface impoundment is in compliance with the requirements of Subsection F of section 265 of this regulation within 12 months after the promulgation of the new listing or characteristic. In addition, if the surface impoundment continues to treat hazardous waste after 48 months from promulgation of the additional listing or characteristic, it must then be in compliance with § 268.4.

Subsection C -- Prohibitions on Land Disposal

§ 268.20 Waste specific prohibitions—Dyes and/or pigments production wastes.

(a) Effective August 23, 2005, the waste specified in Section 261 of this Regulation as EPA Hazardous Waste Number K181, and soil and debris contaminated with this waste, radioactive wastes mixed with this waste, and soil and debris contaminated with radioactive wastes mixed with this waste are prohibited from land disposal.

(b) The requirements of paragraph (a) of this section do not apply if:

(1) The wastes meet the applicable treatment standards specified in subsection D of this Section;

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under § 268.6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable treatment standards established pursuant to a petition granted under § 268.44;

(4) Hazardous debris has met the treatment standards in § 268.40 or the alternative treatment standards in § 268.45; or

(5) Persons have been granted an extension to the effective date of a prohibition pursuant to § 268.5, with respect to these wastes covered by the extension.

(c) To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in § 268.40, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract of the waste, or the generator may use knowledge of the waste. If the waste contains regulated constituents in excess of the applicable subsection D levels, the waste is

prohibited from land disposal, and all requirements of Section 268 are applicable, except as otherwise specified.

§ 268.30 Waste specific prohibitions — wood preserving wastes.

(a) Effective August 11, 1997, the following wastes are prohibited from land disposal: the wastes specified in Section 261 as EPA Hazardous Waste numbers F032, F034, and F035.

(b) Effective May 12, 1999, the following wastes are prohibited from land disposal: soil and debris contaminated with F032, F034, F035; and radioactive wastes mixed with EPA Hazardous waste numbers F032, F034, and F035.

(c) Between May 12, 1997 and May 12, 1999, soil and debris contaminated with F032, F034, F035; and radioactive waste mixed with F032, F034, and F035 may be disposed in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in § 268.5(h)(2) of this section.

(d) The requirements of paragraphs (a) and (b) of this section do not apply if:

- (1) The wastes meet the applicable treatment standards specified in Subsection D of this section;
- (2) Persons have been granted an exemption from a prohibition pursuant to a petition under § 268.6, with respect to those wastes and units covered by the petition;
- (3) The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under § 268.44; or
- (4) Persons have been granted an extension to the effective date of a prohibition pursuant to § 268.5, with respect to those wastes covered by the extension.

(e) To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in § 268.40, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable Universal Treatment Standard levels of § 268.48 of this section, the waste is prohibited from land disposal, and all requirements of Section 268 are applicable, except as otherwise specified.

§ 268.31 Waste specific prohibitions -- Dioxin-containing wastes.

(a) Effective November 8, 1988, the dioxin-containing wastes specified in 261.31 as EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, F027, and F028, are prohibited from land disposal unless the following condition applies:

- (1) The F020-F023 and F026-F028 dioxin-

containing waste is contaminated soil and debris resulting from a response action taken under section 104 or 106 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) or a corrective action taken under subtitle C of the Resource Conservation and Recovery Act (RCRA).

(b) Effective November 8, 1990, the F020-F023 and F026-F028 dioxin-containing wastes listed in paragraph (a)(1) of this section are prohibited from land disposal.

(c) Between November 8, 1988, and November 8, 1990, wastes included in paragraph (a)(1) of this section may be disposed in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in § 268.5(h)(2) and all other applicable requirements of sections 264 and 265 of this regulation.

(d) The requirements of paragraphs (a) and (b) of this section do not apply if:

- (1) The wastes meet the standards of Subsection D of this section; or
- (2) Persons have been granted an exemption from a prohibition pursuant to a petition under § 268.6, with respect to those wastes and units covered by the petition; or
- (3) Persons have been granted an extension to the effective date of a prohibition pursuant to § 268.5, with respect to those wastes covered by the extension.

§ 268.32 Waste specific prohibitions—Soils exhibiting the toxicity characteristic for metals and containing PCBs.

(a) Effective December 26, 2000, the following wastes are prohibited from land disposal: any volumes of soil exhibiting the toxicity characteristic solely because of the presence of metals (D004—D011) and containing PCBs.

(b) The requirements of paragraph (a) of this section do not apply if:

- (1)(i) The wastes contain halogenated organic compounds in total concentration less than 1,000 mg/kg; and
- (ii) The wastes meet the treatment standards specified in Subsection D of this Section for EPA hazardous waste numbers D004—D011, as applicable; or
- (2)(i) The wastes contain halogenated organic compounds in total concentration less than 1,000 mg/kg; and
- (ii) The wastes meet the alternative treatment standards specified in § 268.49 for contaminated soil; or
- (3) Persons have been granted an exemption from a prohibition pursuant to a petition under § 268.6, with respect to those wastes and units covered by the petition; or
- (4) The wastes meet applicable alternative

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treatment standards established pursuant to a petition granted under § 268.44.

§ 268.33 Waste specific prohibitions—chlorinated aliphatic wastes.

(a) Effective May 8, 2001, the wastes specified in Section 261 of this Regulation as EPA Hazardous Wastes Numbers K174, and K175, soil and debris contaminated with these wastes, radioactive wastes mixed with these wastes, and soil and debris contaminated with radioactive wastes mixed with these wastes are prohibited from land disposal.

(b) The requirements of paragraph (a) of this section do not apply if:

- (1) The wastes meet the applicable treatment standards specified in subsection D of this section;
- (2) Persons have been granted an exemption from a prohibition pursuant to a petition under § 268.6, with respect to those wastes and units covered by the petition;
- (3) The wastes meet the applicable treatment standards established pursuant to a petition granted under § 268.44;
- (4) Hazardous debris has met the treatment standards in § 268.40 or the alternative treatment standards in § 268.45; or
- (5) Persons have been granted an extension to the effective date of a prohibition pursuant to § 268.5, with respect to these wastes covered by the extension.

(c) To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in § 268.40, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains regulated constituents in excess of the applicable levels of subsection D of this section, the waste is prohibited from land disposal, and all requirements of Section 268 are applicable, except as otherwise specified.

(d) Disposal of K175 wastes that have complied with all applicable § 268.40 treatment standards must also be macroencapsulated in accordance with § 268.45 Table 1 unless the waste is placed in:

- (1) A Subtitle C monofill containing only K175 wastes that meet all applicable § 268.40 treatment standards; or
- (2) A dedicated Subtitle C landfill cell in which all other wastes being co-disposed are at $\text{pH} \leq 6.0$.

§ 268.34 Waste specific prohibitions — toxicity characteristic metal wastes.

(a) Effective August 24, 1998, the following wastes are prohibited from land disposal: the wastes specified in Section 261 as EPA Hazardous Waste numbers D004-D011 that are

newly identified (i.e. wastes, soil, or debris identified as hazardous by the Toxic Characteristic Leaching Procedure but not the Extraction Procedure), and waste, soil, or debris from mineral processing operations that is identified as hazardous by the specifications at Section 261.

(b) Effective November 26, 1998, the following waste is prohibited from land disposal: Slag from secondary lead smelting which exhibits the toxicity characteristic due to the presence of one or more metals.

(c) Effective May 26, 2000, the following wastes are prohibited from land disposal: newly identified characteristic wastes from elemental phosphorus processing; radioactive wastes mixed with EPA Hazardous wastes D004-D011 that are newly identified (i.e. wastes, soil, or debris identified as hazardous by the Toxic Characteristic Leaching Procedure but not the Extraction Procedure); or mixed with newly identified characteristic mineral processing wastes, soil, or debris.

(d) Between May 26, 1998 and May 26, 2000, newly identified characteristic wastes from elemental phosphorus processing, radioactive waste mixed with D004-D011 wastes that are newly identified (i.e. wastes, soil, or debris identified as hazardous by the Toxic Characteristic Leaching Procedure but not the Extraction Procedure), or mixed with newly identified characteristic mineral processing wastes, soil, or debris may be disposed in a landfill or surface impoundment only if such unit is in compliance with the requirements specified in § 268.5(h)(2) of this section.

(e) The requirements of paragraphs (a) and (b) of this section do not apply if:

- (1) The wastes meet the applicable treatment standards specified in subsection D of this section;
- (2) Persons have been granted an exemption from a prohibition pursuant to a petition under § 268.6, with respect to those wastes and units covered by the petition;
- (3) The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under §268.44; or
- (4) Persons have been granted an extension to the effective date of a prohibition pursuant to §268.5, with respect to these wastes covered by the extension.

(f) To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in § 268.40, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents (including underlying hazardous constituents in characteristic wastes) in excess of the applicable Universal Treatment Standard levels of § 268.48 of this section, the waste is prohibited from land disposal, and all requirements of section 268 are applicable, except as otherwise specified.

§ 268.35 Waste specific prohibitions — petroleum refining wastes.

(a) Effective February 8, 1999, the wastes specified in § 261 as EPA Hazardous Wastes Numbers K169, K170, K171, and K172, soils and debris contaminated with these wastes, radioactive wastes mixed with these hazardous wastes, and soils and debris contaminated with these radioactive mixed wastes, are prohibited from land disposal.

(b) The requirements of paragraph (a) of this section do not apply if:

- (1) The wastes meet the applicable treatment standards specified in Subsection D of this section;
- (2) Persons have been granted an exemption from a prohibition pursuant to a petition under § 268.6, with respect to those wastes and units covered by the petition;
- (3) The wastes meet the applicable treatment standards established pursuant to a petition granted under § 268.44;
- (4) Hazardous debris that have met treatment standards in § 268.40 or in the alternative treatment standards in § 268.45; or
- (5) Persons have been granted an extension to the effective date of a prohibition pursuant to § 268.5, with respect to these wastes covered by the extension.

(c) To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in § 268.40, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable Universal Treatment Standard levels of § 268.48, the waste is prohibited from land disposal, and all requirements of this part are applicable, except as otherwise specified.

§ 268.36 Waste specific prohibitions— inorganic chemical wastes

(a) Effective May 20, 2002, the wastes specified in 40 CFR part 261 as EPA Hazardous Wastes Numbers K176, K177, and K178, and soil and debris contaminated with these wastes, radioactive wastes mixed with these wastes, and soil and debris contaminated with radioactive wastes mixed with these wastes are prohibited from land disposal.

(b) The requirements of paragraph (a) of this section do not apply if:

- (1) The wastes meet the applicable treatment standards specified in subsection D of this section;
- (2) Persons have been granted an exemption from a prohibition pursuant to a petition under § 268.6, with respect to those wastes and units covered by the petition;
- (3) The wastes meet the applicable treatment

standards established pursuant to a petition granted under § 268.44;

(4) Hazardous debris has met the treatment standards in § 268.40 or the alternative treatment standards in § 268.45; or

(5) Persons have been granted an extension to the effective date of a prohibition pursuant to § 268.5, with respect to these wastes covered by the extension.

(c) To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in § 268.40, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains regulated constituents in excess of the applicable subsection D levels, the waste is prohibited from land disposal, and all requirements of this part are applicable, except as otherwise specified

§ 268.37 Waste specific prohibitions-ignitable and corrosive characteristic wastes whose treatment standards were vacated.

(a) Effective August 9, 1993, the wastes specified in § 261.21 as D001 (and is not in the High TOC Ignitable Liquids Subcategory), and specified in § 261.22 as D002, that are managed in systems other than those whose discharge is regulated under the Clean Water Act (CWA), or that inject in Class I deep wells regulated under the Safe Drinking Water Act (SDWA), or that are zero dischargers that engage in CWA-equivalent treatment before ultimate land disposal, are prohibited from land disposal. CWA-equivalent treatment means biological treatment for organics, alkaline chlorination or ferrous sulfate precipitation for cyanide, precipitation/sedimentation for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or greater than these technologies.

(b) Effective February 10, 1994, the wastes specified in 261.21 as D001 (and is not in the High TOC Ignitable Liquids Subcategory), and specified in § 261.22 as D002, that are managed in systems defined in 40 CFR 144.6(e) and 146.6(e) as Class V injection wells, that do not engage in CWA-equivalent treatment before injection, are prohibited from land disposal.

§ 268.38 Waste specific prohibitions-newly identified organic toxicity characteristic wastes and newly listed coke by-product and chlorotoluene production wastes.

(a) Effective December 19, 1994, the wastes specified in 261.32 as EPA Hazardous Waste numbers K141, K142, K143, K144, K145, K147, K148, K149, K150, and K151 are prohibited from land disposal. In addition, debris contaminated with EPA Hazardous Waste numbers F037, F038, K107-

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K112, K117, K118, K123-K126, K131, K132, K136, U328, U353, U359, and soil and debris contaminated with D012-D043, K141-K145, and K147-K151 are prohibited from land disposal. The following wastes that are specified in 261.24, Table 1 as EPA Hazardous Waste numbers: D012, D013, D014, D015, D016, D017, D018, D019, D020, D021, D022, D023, D024, D025, D026, D027, D028, D029, D030, D031, D032, D033, D034, D035, D036, D037, D038, D039, D040, D041, D042, D043 that are not radioactive, or that are managed in systems other than those whose discharge is regulated under the Clean Water Act (CWA), or that are zero dischargers that do not engage in CWA-equivalent treatment before ultimate land disposal, or that are injected in Class I deep wells regulated under the Safe Drinking Water Act (SDWA), are prohibited from land disposal. CWA-equivalent treatment means biological treatment for organics, alkaline chlorination or ferrous sulfate precipitation for cyanide, precipitation/ sedimentation for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or better than these technologies.

(b) On September 19, 1996, radioactive wastes that are mixed with D018-D043 that are managed in systems other than those whose discharge is regulated under the Clean Water Act (CWA), or that inject in Class I deep wells regulated under the Safe Drinking Water Act (SDWA), or that are zero dischargers that engage in CWA-equivalent treatment before ultimate land disposal, are prohibited from land disposal. CWA-equivalent treatment means biological treatment for organics, alkaline chlorination or ferrous sulfate precipitation for cyanide, precipitation/ sedimentation for metals, reduction of hexavalent chromium, or other treatment technology that can be demonstrated to perform equally or greater than these technologies. Radioactive wastes mixed with K141-K145, and K147-K151 are also prohibited from land disposal. In addition, soil and debris contaminated with these radioactive mixed wastes are prohibited from land disposal.

(c) Between December 19, 1994 and September 19, 1996, the wastes included in paragraphs (b) of this section may be disposed in a landfill or surface impoundment, only if such unit is in compliance with the requirements specified in § 268.5(h)(2) of this section.

(d) The requirements of paragraphs (a), (b), and (c) of this section do not apply if:

- (1) The wastes meet the applicable treatment standards specified in Subsection D of this section;
- (2) Persons have been granted an exemption from a prohibition pursuant to a petition under § 268.6, with respect to those wastes and units covered by the petition;
- (3) The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under § 268.44;
- (4) Persons have been granted an extension to the effective date of a prohibition pursuant to § 268.5, with respect to these wastes covered by the extension.

(e) To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in § 268.40, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable Subsection D levels, the waste is prohibited from land disposal, and all requirements of section 268 are applicable, except as otherwise specified.

§ 268.39 Waste specific prohibitions -- spent aluminum potliners; reactive; and carbamate wastes.

(a) On July 8, 1996, the wastes specified in § 261.32 as EPA Hazardous Waste numbers K156-K159, and K161; and in § 261.33 as EPA Hazardous Waste numbers P127, P128, P185, P188-P192, P194, P196-P199, P201-P205, U271, U278-U280, U364, U367, U372, U373, U387, U389, U394, U395, U404, and U409-U411 are prohibited from land disposal. In addition, soil and debris contaminated with these wastes are prohibited from land disposal.

(b) On July 8, 1996, the wastes identified in § 261.23 as D003 that are managed in systems other than those whose discharge is regulated under the Clean Water Act (CWA), or that inject in Class I deep wells regulated under the Safe Drinking Water Act (SDWA), or that are zero dischargers that engage in CWA-equivalent treatment before ultimate land disposal, are prohibited from land disposal. This prohibition does not apply to unexploded ordnance and other explosive devices which have been the subject of an emergency response. (Such D003 wastes are prohibited unless they meet the treatment standard of DEACT before land disposal (see § 268.40)).

(c) On September 21, 1998, the wastes specified in § 261.32 as EPA Hazardous Waste number K088 are prohibited from land disposal. In addition, soil and debris contaminated with this waste are prohibited from land disposal.

(d) On April 8, 1998, radioactive wastes mixed with K088, K156-K159, K161, P127, P128, P185, P188-P192, P194, P196-P199, P201-P205, U271, U278-U280, U364, U367, U372, U373, U387, U389, U394, U395, U404, and U409-U411 are prohibited from land disposal. In addition, soil and debris contaminated with these radioactive mixed wastes are prohibited from land disposal.

(e) Between July 8, 1996, and April 8, 1998, the wastes included in paragraphs (a), (c), and (d) of this section may be disposed in a landfill or surface impoundment, only if such unit is in compliance with the requirements specified in § 268.5(h)(2).

(f) The requirements of paragraphs (a), (b), (c), and (d) of this section do not apply if:

- (1) The wastes meet the applicable treatment standards specified in Section 268, Subsection D of this regulation;

(2) Persons have been granted an exemption from a prohibition pursuant to a petition under § 268.6, with respect to those wastes and units covered by the petition;

(3) The wastes meet the applicable alternate treatment standards established pursuant to a petition granted under § 268.44;

(4) Persons have been granted an extension to the effective date of a prohibition pursuant to § 268.5, with respect to these wastes covered by the extension.

(g) To determine whether a hazardous waste identified in this section exceeds the applicable treatment standards specified in § 268.40, the initial generator must test a sample of the waste extract or the entire waste, depending on whether the treatment standards are expressed as concentrations in the waste extract or the waste, or the generator may use knowledge of the waste. If the waste contains constituents in excess of the applicable Subsection D levels, the waste is prohibited from land disposal, and all requirements of this Section 268 are applicable, except as otherwise specified.

Subsection D -- Treatment Standards

§ 268.40 Applicability of Treatment Standards.

(a) A prohibited waste identified in the table “Treatment Standards for Hazardous Wastes” may be land disposed only if it meets the requirements found in the table. For each waste, the table identifies one of three types of treatment standard requirements:

(1) All hazardous constituents in the waste or in the treatment residue must be at or below the values found in the table for that waste (“total waste standards”); or

(2) The hazardous constituents in the extract of the waste or in the extract of the treatment residue must be at or below the values found in the table (“waste extract standards”); or

(3) The waste must be treated using the technology specified in the table (“technology standard”), which are described in detail in § 268.42, Table 1-Technology Codes and Description of Technology-Based Standards.

(b) For wastewaters, compliance with concentration level standards is based on maximums for any one day, except for D004 through D011 wastes for which the previously promulgated treatment standards based on grab samples remain in effect. For all nonwastewaters, compliance with concentration level standards is based on grab sampling. For wastes covered by the waste extract standards, the test Method 1311, the Toxicity Characteristic Leaching Procedure found in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, EPA Publication SW-846, as incorporated by reference in § 260.11, must be used to measure compliance. An exception is made for D004 and

D008, for which either of two test methods may be used: Method 1311, or Method 1310B, the Extraction Procedure Toxicity Test. For wastes covered by a technology standard, the wastes may be land disposed after being treated using that specified technology or an equivalent treatment technology approved by the Administrator under the procedures set forth in § 268.42(b).

(c) When wastes with differing treatment standards for a constituent of concern are combined for purposes of treatment, the treatment residue must meet the lowest treatment standard for the constituent of concern.

(d) Notwithstanding the prohibitions specified in paragraph (a) of this section, treatment and disposal facilities may demonstrate (and certify pursuant to 268.7(b)(5)) compliance with the treatment standards for organic constituents specified by a footnote in the table “Treatment Standards for Hazardous Wastes” in this section, provided the following conditions are satisfied:

(1) The treatment standards for the organic constituents were established based on incineration in units operated in accordance with the technical requirements of Section 264, Subsection O, or based on combustion in fuel substitution units operating in accordance with applicable technical requirements;

(2) The treatment or disposal facility has used the methods referenced in paragraph (d)(1) of this section to treat the organic constituents; and

(3) The treatment or disposal facility may demonstrate compliance with organic constituents if good-faith analytical efforts achieve detection limits for the regulated organic constituents that do not exceed the treatment standards specified in this section by an order of magnitude.

(e) For characteristic wastes (D001-D043) that are subject to treatment standards in the following table “Treatment Standards for Hazardous Wastes,” and are not managed in a wastewater treatment system that is regulated under the Clean Water Act (CWA), that is CWA-equivalent, or that is injected into a Class I nonhazardous deep injection well, all underlying hazardous constituents (as defined in § 268.2(i)) must meet Universal Treatment Standards, found in § 268.48, Table Universal Treatment Standards, prior to land disposal as defined in § 268.2(c) of this regulation.

(1) When these wastes are managed in wastewater treatment systems regulated by the Clean Water Act (CWA), compliance with the treatment standards must be achieved no later than “end-of-pipe” as defined in § 268.2(k); or

(2) When these wastes are managed in CWA-equivalent treatment systems and tank-based systems that discharge onto the land, compliance with the treatment standards must be achieved no later than the point the wastewater is released to the land (e.g., spray irrigation, discharge to dry river beds, placed into evaporation ponds); or

(3) When these wastes are managed in Class I nonhazardous injection wells, compliance with the

treatment standards must be achieved no later than the well head; or

(4) For all other, compliance with the treatment standard must be met prior to land disposal as defined in § 268.2(c).

(f) The treatment standards for F001-F005 nonwastewater constituents carbon disulfide, cyclohexanone, and/or methanol apply to wastes which contain only one, two, or three of these constituents. Compliance is measured for these constituents in the waste extract from test Method 1311, the Toxicity Characteristic Leaching Procedure found in “Test Methods for Evaluating Solid Waste, Physical/Chemical Methods”, EPA Publication SW-846, as incorporated by reference in § 260.11. If the waste contains any of these three constituents along with any of the other 25 constituents found in F001-F005, then compliance with treatment standards for carbon disulfide, cyclohexanone, and/or methanol are not required.

(g) Between August 26, 1996 and March 4, 1999 the treatment standards for the wastes specified in § 261.32 as EPA Hazardous Waste numbers K156-K161; and in § 261.33 as EPA Hazardous Waste numbers P127, P128, P185, P188-P192, P194, P196-P199, P201-P205, U271, U277-U280, U364-U367, U372, U373, U375-U379, U381-U387, U389-U396, U400-U404, U407, and U409-U411; and soil contaminated with these wastes; may be satisfied by either meeting the constituent concentrations presented in the table “Treatment Standards for Hazardous Wastes” in this section, or by treating the waste by the following technologies: combustion, as defined by the technology code CMBST at § 268.42 Table 1, for non-wastewaters; and, biodegradation as defined by the technology code BIODG, carbon adsorption

as defined by the technology code CARBN, chemical oxidation as defined by the technology code CHOXD, or combustion as defined as technology code CMBST at § 268.42 Table 1, for wastewaters.

(h) Prohibited D004-D011 mixed radioactive wastes and mixed radioactive listed wastes containing metal constituents, that were previously treated by stabilization to the treatment standards in effect at that time and then put into storage, do not have to be re-treated to meet treatment standards in this section prior to land disposal.

(i) Zinc-containing fertilizers that are produced for the general public’s use and that are produced from or contain recycled characteristic hazardous wastes (D004-D011) are subject to the applicable treatment standards in § 268.41 contained in the 40 CFR, parts 260-299, edition revised as of July 1, 1990.

(j) Effective September 4, 1998, the treatment standards for the wastes specified in § 261.33 as EPA hazardous waste numbers P185, P191, P192, P197, U364, U394, and U395 may be satisfied by either meeting the constituent concentrations presented in the table “Treatment Standards for Hazardous Wastes” in this subsection, or by treating the waste by the following technologies: combustion, as defined by the technology code CMBST at § 268.42 Table 1 of this Section, for nonwastewaters; and biodegradation, as defined by the technology code BIODG, carbon absorption as defined by the technology code CARBN, chemical oxidation as defined by the technology code of CHOXD, or combustion, as defined by the technology code CMBST at § 268.42 Table 1 of this Section, for wastewaters.

Note: The treatment standards that heretofore appeared in tables in §§ 268.41, 268.42, and 268.43 of this section have been consolidated into the table “Treatment Standards for Hazardous Wastes” in this section.

§268.40 TREATMENT STANDARDS FOR HAZARDOUS WASTES NOTE: NA means not applicable

WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NON-WASTEWATERS
		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
D001 ⁹	Ignitable Characteristic Wastes, except for the §261.21(a)(1) High TOC Subcategory.	NA	NA	DEACT and meet 268.48 standards ⁸ ; or RORGS; or CMBST	DEACT and meet 268.48 standards ⁸ ; or RORGS; or CMBST
	High TOC Ignitable Characteristic Liquids Subcategory based on § 261.21(a)(1) - Greater than or equal to 10% total organic carbon. (Note: This subcategory consists of non-wastewaters only.)	NA	NA	NA	RORGS; CMBST; or POLYM
D002 ⁹	Corrosive Characteristic Wastes.	NA	NA	DEACT and meet 268.48 standards ⁸	DEACT and meet 268.48 standards ⁸
D002, D004, D005, D006, D007, D008, D009, D010, D011	Radioactive high level wastes generated during the reprocessing of fuel rods. (Note: This subcategory consists of non-wastewaters only.)	Corrosivity (pH)	NA	NA	HLVIT
		Arsenic	7440-38-2	NA	HLVIT
		Barium	7440-39-3	NA	HLVIT
		Cadmium	7440-43-9	NA	HLVIT
		Chromium (Total)	7440-47-3	NA	HLVIT
		Lead	7439-92-1	NA	HLVIT
		Mercury	7439-97-6	NA	HLVIT
		Selenium	7782-49-2	NA	HLVIT
D003 ⁹	Reactive Sulfides Subcategory based on § 261.23(a)(5).	NA	NA	DEACT	DEACT
	Explosives Subcategory based on 261.23(a)(6), (7), and (8).	NA	NA	DEACT and meet 268.48 standards ⁸	DEACT and meet 268.48 standards ⁸
	Unexploded ordnance and other explosive devices which have been the subject of an emergency response.	NA	NA	DEACT	DEACT

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WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NON-WASTEWATERS
		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
	Other Reactives Subcategory based on 261.23(a)(1).	NA	NA	DEACT and meet 268.48 standards ⁸	DEACT and meet 268.48 standards ⁸
	Water Reactive Subcategory based on 261.23(a)(2), (3), and (4). (Note: This subcategory consists of non-wastewaters only.)	NA	NA	NA	DEACT and meet 268.48 standards ⁸
	Reactive Cyanides Subcategory based on 261.23(a)(5).	Cyanides (Total) ⁷	57-12-5	Reserved	590
Cyanides (Amenable) ⁷		57-12-5	0.86	30	
D004 ⁹	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for arsenic based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Arsenic	7440-38-2	1.4 and meet 268.48 standards ⁸	5.0 mg/l TCLP and meet 268.48 standards ⁸
D005 ⁹	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for barium based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Barium	7440-39-3	1.2 and meet 268.48 standards ⁸	21 mg/l TCLP and meet 268.48 standards ⁸
D006 ⁹	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for cadmium based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Cadmium	7440-43-9	0.69 and meet 268.48 standards ⁸	0.11 mg/l TCLP and meet 268.48 standards ⁸
	Cadmium Containing Batteries Subcategory. (Note: This subcategory consists of non-wastewaters only.)	Cadmium	7440-43-9	NA	RTHRM
D007 ⁹	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for chromium based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Chromium (Total)	7440-47-3	2.77 and meet 268.48 standards ⁸	0.60 mg/l TCLP and meet 268.48 standards ⁸
D008 ⁹	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for lead based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Lead	7439-92-1	0.69 and meet 268.48 standards ⁸	0.75 mg/l TCLP and meet 268.48 standards ⁸
	Lead Acid Batteries Subcategory (Note: This standard only applies to lead acid batteries that are identified as RCRA hazardous wastes and that are not excluded elsewhere from	Lead	7439-92-1	NA	RLEAD

§268.40 TREATMENT STANDARDS FOR HAZARDOUS WASTES NOTE: NA means not applicable

WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NON-WASTEWATERS
		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
	regulation under the land disposal restrictions of 40 CFR 268 or exempted under other EPA regulations (see 40 CFR 266.80). This subcategory consists of non-wastewaters only.)				
	Radioactive Lead Solids Subcategory (Note: these lead solids include, but are not limited to, all forms of lead shielding and other elemental forms of lead. These lead solids do not include treatment residuals such as hydroxide sludges, other wastewater treatment residuals, or incinerator ashes that can undergo conventional pozzolanic stabilization, nor do they include organo-lead materials that can be incinerated and stabilized as ash. This subcategory consists of non-wastewaters only.)	Lead	7439-92-1	NA	MACRO
D009 ⁹	Non-wastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain greater than or equal to 260 mg/kg total mercury that also contain organics and are not incinerator residues. (High Mercury-Organic Subcategory)	Mercury	7439-97-6	NA	IMERC; OR RMERC
	Non-wastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain greater than or equal to 260 mg/kg total mercury that are inorganic, including incinerator residues and residues from RMERC. (High Mercury-Inorganic Subcategory)	Mercury	7439-97-6	NA	RMERC
	Non-wastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain less than 260 mg/kg total mercury and that are residues from RMERC only. (Low Mercury Subcategory)	Mercury	7439-97-6	NA	0.20 mg/l TCLP and meet 268.48 standards ⁸
	All other non-wastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain less than 260 mg/kg total mercury and that are not residues from RMERC. (Low Mercury Subcategory)	Mercury	7439-97-6	NA	0.025 mg/l TCLP and meet 268.48 standards ⁸

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§268.40 TREATMENT STANDARDS FOR HAZARDOUS WASTES NOTE: NA means not applicable

WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NON-WASTEWATERS
		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
	All D009 wastewaters.	Mercury	7439-97-6	0.15 and meet 268.48 standards ⁸	NA
	Elemental mercury contaminated with radioactive materials. (Note: This subcategory consists of non-wastewaters only.)	Mercury	7439-97-6	NA	AMLGM
	Hydraulic oil contaminated with Mercury Radioactive Materials Subcategory. (Note: This subcategory consists of non-wastewaters only.)	Mercury	7439-97-6	NA	IMERC
D010 ⁹	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for selenium based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Selenium	7782-49-2	0.82 and meet 268.48 standards ⁸	5.7 mg/l TCLP and meet 268.48 standards ⁸
D011 ⁹	Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for silver based on the toxicity characteristic leaching procedure (TCLP) in SW846.	Silver	7440-22-4	0.43 and meet 268.48 standards ⁸	0.14 mg/l TCLP and meet 268.48 standards ⁸
D012 ⁹	Wastes that are TC for Endrin based on the TCLP in SW846 Method 1311.	Endrin	72-20-8	BIODG; or CMBST	0.13 and meet 268.48 standards ⁸
		Endrin aldehyde	7421-93-4	BIODG; or CMBST	0.13 and meet 268.48 standards ⁸
D013 ⁹	Wastes that are TC for Lindane based on the TCLP in SW846 Method 1311.	alpha-BHC	319-84-6	CARBN; or CMBST	0.066 and meet 268.48 standards ⁸
		beta-BHC	319-85-7	CARBN; or CMBST	0.066 and meet 268.48 standards ⁸
		delta-BHC	319-86-8	CARBN; or CMBST	0.066 and meet 268.48 standards ⁸
		gamma-BHC (Lindane)	58-89-9	CARBN; or CMBST	0.066

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴ and meet 268.48 standards ⁸
D014 ⁹	Wastes that are TC for Methoxychlor based on the TCLP in SW846 Method 1311.	Methoxychlor	72-43-5	WETOX or CMBST	0.18 and meet 268.48 standards ⁸
D015 ⁹	Wastes that are TC for Toxaphene based on the TCLP in SW846 Method 1311.	Toxaphene	8001-35-2	BIODG or CMBST	2.6 and meet 268.48 standards ⁸
D016 ⁹	Wastes that are TC for 2,4-D (2,4-Dichlorophenoxyacetic acid) based on the TCLP in SW846 Method 1311.	2,4-D (2,4-Dichlorophenoxyacetic acid)	94-75-7	CHOXD, BIODG, or CMBST	10 and meet 268.48 standards ⁸
D017 ⁹	Wastes that are TC for 2,4,5-TP (Silvex) based on the TCLP in SW846 Method 1311.	2,4,5-TP (Silvex)	93-72-1	CHOXD or CMBST	7.9 and meet 268.48 standards ⁸
D018 ⁹	Wastes that are TC for Benzene based on the TCLP in SW846 Method 1311.	Benzene	71-43-2	0.14 and meet 268.48 standards ⁸	10 and meet 268.48 standards ⁸
D019 ⁹	Wastes that are TC for Carbon tetrachloride based on the TCLP in SW846 Method 1311.	Carbon tetrachloride	56-23-5	0.057 and meet 268.48 standards ⁸	6.0 and meet 268.48 standards ⁸
D020 ⁹	Wastes that are TC for Chlordane based on the TCLP in SW846 Method 1311.	Chlordane (alpha and gamma isomers)	57-74-9	0.0033 and meet 268.48 standards ⁸	0.26 and meet 268.48 standards ⁸
D021 ⁹	Wastes that are TC for Chlorobenzene based on the TCLP in SW846 Method 1311.	Chlorobenzene	108-90-7	0.057 and meet 268.48 standards ⁸	6.0 and meet 268.48 standards ⁸
D022 ⁹	Wastes that are TC for Chloroform based on the TCLP in SW846 Method 1311.	Chloroform	67-66-3	0.046 and meet 268.48 standards ⁸	6.0 and meet 268.48 standards ⁸
D023 ⁹	Wastes that are TC for o-Cresol based on the TCLP in SW846 Method 1311.	o-Cresol	95-48-7	0.11 and meet 268.48 standards ⁸	5.6 and meet 268.48 standards ⁸
D024 ⁹	Wastes that are TC for m-Cresol based on the TCLP in SW846 Method 1311.	m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
				and meet 268.48 standards ⁸	and meet 268.48 standards ⁸
D025 ⁹	Wastes that are TC for p-Cresol based on the TCLP in SW846 Method 1311.	p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77 and meet 268.48 standards ⁸	5.6 and meet 268.48 standards ⁸
D026 ⁹	Wastes that are TC for Cresols (Total) based on the TCLP in SW846 Method 1311.	Cresol-mixed isomers (Cresylic acid)(sum of o-, m-, and p-cresol concentrations)	1319-77-3	0.88 and meet 268.48 standards ⁸	11.2 and meet 268.48 standards ⁸
D027 ⁹	Wastes that are TC for p-Dichlorobenzene based on the TCLP in SW846 Method 1311.	p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	0.090 and meet 268.48 standards ⁸	6.0 and meet 268.48 standards ⁸
D028 ⁹	Wastes that are TC for 1,2-Dichloroethane based on the TCLP in SW846 Method 1311.	1,2-Dichloroethane	107-06-2	0.21 and meet 268.48 standards ⁸	6.0 and meet 268.48 standards ⁸
D029 ⁹	Wastes that are TC for 1,1-Dichloroethylene based on the TCLP in SW846 Method 1311.	1,1-Dichloroethylene	75-35-4	0.025 and meet 268.48 standards ⁸	6.0 and meet 268.48 standards ⁸
D030 ⁹	Wastes that are TC for 2,4-Dinitrotoluene based on the TCLP in SW846 Method 1311.	2,4-Dinitrotoluene	121-14-2	0.32 and meet 268.48 standards ⁸	140 and meet 268.48 standards ⁸
D031 ⁹	Wastes that are TC for Heptachlor based on the TCLP in SW846 Method 1311.	Heptachlor	76-44-8	0.0012 and meet 268.48 standards ⁸	0.066 and meet 268.48 standards ⁸
		Heptachlor epoxide	1024-57-3	0.016 and meet 268.48 standards ⁸	0.066 and meet 268.48 standards ⁸
D032 ⁹	Wastes that are TC for Hexachlorobenzene based on the TCLP in SW846 Method 1311.	Hexachlorobenzene	118-74-1	0.055 and meet 268.48 standards ⁸	10 and meet 268.48 standards ⁸
D033 ⁹	Wastes that are TC for Hexachlorobutadiene based on the TCLP in SW846 Method 1311.	Hexachlorobutadiene	87-68-3	0.055 and meet 268.48 standards ⁸	5.6 and meet 268.48 standards ⁸
D034 ⁹	Wastes that are TC for Hexachloroethane based on the TCLP in	Hexachloroethane	67-72-1	0.055	30

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
	SW846 Method 1311.			and meet 268.48 standards ⁸	and meet 268.48 standards ⁸
D035 ⁹	Wastes that are TC for Methyl ethyl ketone based on the TCLP in SW846 Method 1311.	Methyl ethyl ketone	78-93-3	0.28 and meet 268.48 standards ⁸	36 and meet 268.48 standards ⁸
D036 ⁹	Wastes that are TC for Nitrobenzene based on the TCLP in SW846 Method 1311.	Nitrobenzene	98-95-3	0.068 and meet 268.48 standards ⁸	14 and meet 268.48 standards ⁸
D037 ⁹	Wastes that are TC for Pentachlorophenol based on the TCLP in SW846 Method 1311.	Pentachlorophenol	87-86-5	0.089 and meet 268.48 standards ⁸	7.4 and meet 268.48 standards ⁸
D038 ⁹	Wastes that are TC for Pyridine based on the TCLP in SW846 Method 1311.	Pyridine	110-86-1	0.014 and meet 268.48 standards ⁸	16 and meet 268.48 standards ⁸
D039 ⁹	Wastes that are TC for Tetrachloroethylene based on the TCLP in SW846 Method 1311.	Tetrachloroethylene	127-18-4	0.056 and meet 268.48 standards ⁸	6.0 and meet 268.48 standards ⁸
D040 ⁹	Wastes that are TC for Trichloroethylene based on the TCLP in SW846 Method 1311.	Trichloroethylene	79-01-6	0.054 and meet 268.48 standards ⁸	6.0 and meet 268.48 standards ⁸
D041 ⁹	Wastes that are TC for 2,4,5-Trichlorophenol based on the TCLP in SW846 Method 1311.	2,4,5-Trichlorophenol	95-95-4	0.18 and meet 268.48 standards ⁸	7.4 and meet 268.48 standards ⁸
D042 ⁹	Wastes that are TC for 2,4,6-Trichlorophenol based on the TCLP in SW846 Method 1311.	2,4,6-Trichlorophenol	88-06-2	0.035 and meet 268.48 standards ⁸	7.4 and meet 268.48 standards ⁸
D043 ⁹	Wastes that are TC for Vinyl chloride based on the TCLP in SW846 Method 1311.	Vinyl chloride	75-01-4	0.27 and meet 268.48 standards ⁸	6.0 and meet 268.48 standards ⁸
F001, F002, F003, F004, & F005	F001, F002, F003, F004 and/or F005 solvent wastes that contain any combination of one or more of the following spent solvents: acetone, benzene, n-butyl alcohol, carbon disulfide, carbon tetrachloride, chlorinated fluorocarbons, chlorobenzene, o-	Acetone	67-64-1	0.28	160

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
	cresol, m-cresol, p-cresol, cyclohexanone, o-dichlorobenzene, 2-ethoxyethanol, ethyl acetate, ethyl benzene, ethyl ether, isobutyl alcohol, methanol, methylene chloride, methyl ethyl ketone, methyl isobutyl ketone, nitrobenzene, 2-nitropropane, pyridine, tetrachloroethylene, toluene, 1,1,1-trichloroethane, 1,1,2-trichloroethane, 1,1,2-trichloro-1,2,2-trifluoroethane, trichloroethylene, trichloromonofluoromethane, and/or xylenes [except as specifically noted in other subcategories]. See further details of these listings in 261.31				
		Benzene	71-43-2	0.14	10
		n-Butyl alcohol	71-36-3	5.6	2.6
		Carbon disulfide	75-15-0	3.8	NA
		Carbon tetrachloride	56-23-5	0.057	6.0
		Chlorobenzene	108-90-7	0.057	6.0
		o-Cresol	95-48-7	0.11	5.6
		m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
		p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
		Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)	1319-77-3	0.88	11.2
		Cyclohexanone	108-94-1	0.36	NA
		o-Dichlorobenzene	95-50-1	0.088	6.0
		Ethyl acetate	141-78-6	0.34	33
		Ethyl benzene	100-41-4	0.057	10
		Ethyl ether	60-29-7	0.12	160
	Isobutyl alcohol	78-83-1	5.6	170	

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Methanol	67-56-1	5.6	NA
		Methylene chloride	75-9-2	0.089	30
		Methyl ethyl ketone	78-93-3	0.28	36
		Methyl isobutyl ketone	108-10-1	0.14	33
		Nitrobenzene	98-95-3	0.068	14
		Pyridine	110-86-1	0.014	16
		Tetrachloroethylene	127-18-4	0.056	6.0
		Toluene	108-88-3	0.080	10
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.057	30
		Trichloroethylene	79-01-6	0.054	6.0
		Trichloromonofluoromethane	75-69-4	0.020	30
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
	F003 and/or F005 solvent wastes that contain any combination of one or more of the following three solvents as the only listed F001-5 solvents: carbon disulfide, cyclohexanone, and/or methanol. (formerly 268.41(c))	Carbon disulfide	75-15-0	3.8	4.8 mg/l TCLP
		Cyclohexanone	108-94-1	0.36	0.75 mg/l TCLP
		Methanol	67-56-1	5.6	0.75 mg/l TCLP

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
	F005 solvent waste containing 2-Nitropropane as the only listed F001-5 solvent.	2-Nitropropane	79-46-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
	F005 solvent waste containing 2-Ethoxyethanol as the only listed F001-5 solvent.	2-Ethoxyethanol	110-80-5	BIODG; or CMBST	CMBST
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum.	Cadmium	7440-43-9	0.69	0.11 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Nickel	7440-02-0	3.98	11 mg/l TCLP
		Silver	7440-22-4	NA	0.14 mg/l TCLP
F007	Spent cyanide plating bath solutions from electroplating operations.	Cadmium	7440-43-9	NA	0.11 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Nickel	7440-02-0	3.98	11 mg/l TCLP
		Silver	7440-22-4	NA	0.14 mg/l TCLP
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.	Cadmium	7440-43-9	NA	0.11 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Nickel	7440-02-0	3.98	11 mg/l TCLP
		Silver	7440-22-4	NA	0.14 mg/l TCLP
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.	Cadmium	7440-43-9	NA	0.11 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Nickel	7440-02-0	3.98	11 mg/l TCLP
		Silver	7440-22-4	NA	0.14 mg/l TCLP
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.	Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	NA
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations.	Cadmium	7440-43-9	NA	0.11 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Nickel	7440-02-0	3.98	11 mg/l TCLP

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Silver	7440-22-4	NA	0.14 mg/l TCLP
F012	Quenching wastewater treatment sludges from metal heat treating operations where cyanides are used in the process.	Cadmium	7440-43-9	NA	0.11 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Nickel	7440-02-0	3.98	11 mg/l TCLP
		Silver	7440-22-4	NA	0.14 mg/l TCLP
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.	Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
F020, F021, F022, F023, F026	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of: (1) tri- or tetrachlorophenol, or of intermediates used to produce their pesticide derivatives, excluding wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol (F020); (2) pentachlorophenol, or of intermediates used to produce its derivatives (i.e., F021); (3) tetra-, penta-, or hexachlorobenzenes under alkaline conditions (i.e., F022); and from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of: (1) tri- or tetrachlorophenols, excluding wastes from equipment used only for the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol (F023); (2) tetra-, penta-, or	HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
		PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
		Pentachlorophenol	87-86-5	0.089	7.4
		TCDDs (All Tetrachlorodibenzo-p-	NA	0.000063	0.001

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
	hexachlorobenzenes under alkaline conditions (i.e., F026).	dioxins)			
		TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
F024	Process wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in 261.31 or 261.32.).	All F024 wastes	NA	CMBST ¹¹	CMBST ¹¹
		2-Chloro-1,3-butadiene	126-99-8	0.057	0.28
		3-Chloropropylene	107-05-1	0.036	30
		1,1-Dichloroethane	75-34-3	0.059	6.0
		1,2-Dichloroethane	107-06-2	0.21	6.0
		1,2-Dichloropropane	78-87-5	0.85	18
		cis-1,3-Dichloropropylene	10061-01-5	0.036	18
		trans-1,3-Dichloropropylene	10061-02-6	0.036	18
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		Hexachloroethane	67-72-1	0.055	30
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Nickel	7440-02-0	3.98	11 mg/l TCLP
F025	Condensed light ends from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five,	Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
	with varying amounts and positions of chlorine substitution. F025 - Light Ends Subcategory	1,2-Dichloroethane	107-06-2	0.21	6.0
		1,1-Dichloroethylene	75-35-4	0.025	6.0
		Methylene chloride	75-9-2	0.089	30
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Trichloroethylene	79-01-6	0.054	6.0
		Vinyl chloride	75-01-4	0.27	6.0
	Spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. F025 - Spent Filters/Aids and Desiccants Subcategory	Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		Hexachlorobenzene	118-74-1	0.055	10
		Hexachlorobutadiene	87-68-3	0.055	5.6
		Hexachloroethane	67-72-1	0.055	30
		Methylene chloride	75-9-2	0.089	30
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Trichloroethylene	79-01-6	0.054	6.0
	Vinyl chloride	75-01-4	0.27	6.0	
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.).	HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
		PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
		Pentachlorophenol	87-86-5	0.089	7.4
		TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
		F028	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Wastes Nos. F020, F021, F023, F026, and F027.	HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA
HxCDFs (All Hexachlorodibenzofurans)	NA			0.000063	0.001
PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA			0.000063	0.001
PeCDFs (All Pentachlorodibenzofurans)	NA			0.000035	0.001
Pentachlorophenol	87-86-5			0.089	7.4
TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA			0.000063	0.001
TCDFs (All Tetrachlorodibenzofurans)	NA			0.000063	0.001
2,4,5-Trichlorophenol	95-95-4			0.18	7.4

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
F032	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with 261.35 of this chapter or potentially cross-contaminated wastes that are otherwise currently regulated as hazardous wastes (i.e., F034 or F035), and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or penta-chlorophenol.	Acenaphthene	83-32-9	0.059	3.4
		Anthracene	120-12-7	0.059	3.4
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		2-4-Dimethyl phenol	105-67-9	0.036	14
		Fluorene	86-73-7	0.059	3.4
		Hexachlorodibenzo-p-dioxins	NA	0.000063, or CMBST ¹¹	0.001, or CMBST ¹¹
		Hexachlorodibenzofurans	NA	0.000063, or CMBST ¹¹	0.001, or CMBST ¹¹
		Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Naphthalene	91-20-3	0.059	5.6
		Pentachlorodibenzo-p-dioxins	NA	0.000063, or CMBST ¹¹	0.001, or CMBST ¹¹
		Pentachlorodibenzofurans	NA	0.000035, or CMBST ¹¹	0.001, or CMBST ¹¹
		Pentachlorophenol	87-86-5	0.089	7.4
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Tetrachlorodibenzo-p-dioxins	NA	0.000063, or CMBST ¹¹	0.001, or CMBST ¹¹
		Tetrachlorodibenzofurans	NA	0.000063, or CMBST ¹¹	0.001, or CMBST ¹¹
		2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		F034	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that	Acenaphthene	83-32-9
		Anthracene	120-12-7	0.059	3.4
		Benz(a)anthracene	56-55-3	0.059	3.4

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WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NON-WASTEWATERS
		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
	use creosote and/or pentachlorophenol.				
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Fluorene	86-73-7	0.059	3.4
		Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2
		Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
F035	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP

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WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NON-WASTEWATERS
		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
	pentachlorophenol.				
F037	Petroleum refinery primary oil/water/solids separation sludge- Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in: oil/water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in 261.31(b)(2) (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing.	Acenaphthene	83-32-9	0.059	NA
		Anthracene	120-12-7	0.059	3.4
		Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		Chrysene	218-01-9	0.059	3.4
		Di-n-butyl phthalate	84-74-2	0.057	28
		Ethylbenzene	100-41-4	0.057	10
		Fluorene	86-73-7	0.059	NA
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.080	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP		

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WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NON-WASTEWATERS
		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11 mg/l TCLP
F038	Petroleum refinery secondary (emulsified) oil/water/solids separation sludge and/or float generated from the physical and/or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludges and floats generated in: induced air floatation (IAF) units, tanks and impoundments, and all sludges generated in DAF units. Sludges generated in stormwater units that do not receive dry weather flow, sludges generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges and floats generated in aggressive biological treatment units as defined in 261.31(b)(2) (including sludges and floats generated in one or more additional units after wastewaters have been treated in aggressive biological units) and F037, K048, and K051 are not included in this listing.	Benzene	71-43-2	0.14	10
		Benzo(a)pyrene	50-32-8	0.061	3.4
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		Chrysene	218-01-9	0.059	3.4
		Di-n-butyl phthalate	84-74-2	0.057	28
		Ethylbenzene	100-41-4	0.057	10
		Fluorene	86-73-7	0.059	NA
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.080	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11 mg/l TCLP
F039	Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under subpart D of this part. (Leachate resulting from the disposal of one or more of the following EPA Hazardous Wastes and no other Hazardous Wastes retains its EPA Hazardous Waste Number(s): F020, F021, F022, F026, F027, and/or F028.).	Acenaphthylene	208-96-8	0.059	3.4
		Acenaphthene	83-32-9	0.059	3.4
		Acetone	67-64-1	0.28	160
		Acetonitrile	75-05-8	5.6	NA
		Acetophenone	96-86-2	0.010	9.7
		2-Acetylaminofluorene	53-96-3	0.059	140
		Acrolein	107-02-8	0.29	NA
		Acrylonitrile	107-13-1	0.24	84
		Aldrin	309-00-2	0.021	0.066
		4-Aminobiphenyl	92-67-1	0.13	NA
		Aniline	62-53-3	0.81	14
		o-Anisidine (2-methoxyaniline)	90-04-0	0.010	0.66
		Anthracene	120-12-7	0.059	3.4
		Aramite	140-57-8	0.36	NA
		alpha-BHC	319-84-6	0.00014	0.066
		beta-BHC	319-85-7	0.00014	0.066
delta-BHC	319-86-8	0.023	0.066		
gamma-BHC	58-89-9	0.0017	0.066		

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Bromodichloromethane	75-27-4	0.35	15
		Methyl bromide (Bromomethane)	74-83-9	0.11	15
		4-Bromophenyl phenyl ether	101-55-3	0.055	15
		n-Butyl alcohol	71-36-3	5.6	2.6
		Butyl benzyl phthalate	85-68-7	0.017	28
		2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	88-85-7	0.066	2.5
		Carbon disulfide	75-15-0	3.8	NA
		Carbon tetrachloride	56-23-5	0.057	6.0
		Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
		p-Chloroaniline	106-47-8	0.46	16

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Chlorobenzene	108-90-7	0.057	6.0
		Chlorobenzilate	510-15-6	0.10	NA
		2-Chloro-1,3-butadiene	126-99-8	0.057	NA
		Chlorodibromomethane	124-48-1	0.057	15
		Chloroethane	75-00-3	0.27	6.0
		bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2
		bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
		Chloroform	67-66-3	0.046	6.0
		bis(2-Chloroisopropyl)ether	39638-32-9	0.055	7.2
		p-Chloro-m-cresol	59-50-7	0.018	14
		Chloromethane (Methyl chloride)	74-87-3	0.19	30
		2-Chloronaphthalene	91-58-7	0.055	5.6
		2-Chlorophenol	95-57-8	0.044	5.7
		3-Chloropropylene	107-05-1	0.036	30
		Chrysene	218-01-9	0.059	3.4
		p-Cresidine	120-71-8	0.010	0.66
		o-Cresol	95-48-7	0.11	5.6
		m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
		Cyclohexanone	108-94-1	0.36	NA
		1,2-Dibromo-3-chloropropane	96-12-8	0.11	15
		Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
		Dibromomethane	74-95-3	0.11	15
		2,4-D (2,4-Dichlorophenoxyacetic acid)	94-75-7	0.72	10
		o,p'-DDD	53-19-0	0.023	0.087
		p,p'-DDD	72-54-8	0.023	0.087
		o,p'-DDE	3424-82-6	0.031	0.087
		p,p'-DDE	72-55-9	0.031	0.087
		o,p'-DDT	789-02-6	0.0039	0.087
		p,p'-DDT	50-29-3	0.0039	0.087
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Dibenz(a,e)pyrene	192-65-4	0.061	NA
		m-Dichlorobenzene	541-73-1	0.036	6.0
		o-Dichlorobenzene	95-50-1	0.088	6.0
		p-Dichlorobenzene	106-46-7	0.090	6.0

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Dichlorodifluoromethane	75-71-8	0.23	7.2
		1,1-Dichloroethane	75-34-3	0.059	6.0
		1,2-Dichloroethane	107-06-2	0.21	6.0
		1,1-Dichloroethylene	75-35-4	0.025	6.0
		trans-1,2-Dichloroethylene	156-60-5	0.054	30
		2,4-Dichlorophenol	120-83-2	0.044	14
		2,6-Dichlorophenol	87-65-0	0.044	14
		1,2-Dichloropropane	78-87-5	0.85	18
		cis-1,3-Dichloropropylene	10061-01-5	0.036	18
		trans-1,3-Dichloropropylene	10061-02-6	0.036	18
		Dieldrin	60-57-1	0.017	0.13
		Diethyl phthalate	84-66-2	0.20	28
		2,4-Dimethylaniline (2,4-xylydine)	95-68-1	0.010	0.66
		2,4-Dimethyl phenol	105-67-9	0.036	14
		Dimethyl phthalate	131-11-3	0.047	28
		Di-n-butyl phthalate	84-74-2	0.057	28
		1,4-Dinitrobenzene	100-25-4	0.32	2.3
		4,6-Dinitro-o-cresol	534-52-1	0.28	160
		2,4-Dinitrophenol	51-28-5	0.12	160
		2,4-Dinitrotoluene	121-14-2	0.32	140

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		2,6-Dinitrotoluene	606-20-2	0.55	28
		Di-n-octyl phthalate	117-84-0	0.017	28
		Di-n-propylnitrosamine	621-64-7	0.40	14
		1,4-Dioxane	123-91-1	12.0	170
		Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	NA
		Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	NA
		1,2-Diphenylhydrazine	122-66-7	0.087	NA
		Disulfoton	298-04-4	0.017	6.2
		Endosulfan I	939-98-8	0.023	0.066
		Endosulfan II	33213-6-5	0.029	0.13
		Endosulfan sulfate	1031-07-8	0.029	0.13
		Endrin	72-20-8	0.0028	0.13
		Endrin aldehyde	7421-93-4	0.025	0.13
		Ethyl acetate	141-78-6	0.34	33
		Ethyl cyanide (Propanenitrile)	107-12-0	0.24	360
		Ethyl benzene	100-41-4	0.057	10
		Ethyl ether	60-29-7	0.12	160
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Ethyl methacrylate	97-63-2	0.14	160
		Ethylene oxide	75-21-8	0.12	NA
		Famphur	52-85-7	0.017	15
		Fluoranthene	206-44-0	0.068	3.4
		Fluorene	86-73-7	0.059	3.4
		Heptachlor	76-44-8	0.0012	0.066
		Heptachlor epoxide	1024-57-3	0.016	0.066
		Hexachlorobenzene	118-74-1	0.055	10
		Hexachlorobutadiene	87-68-3	0.055	5.6
		Hexachlorocyclopentadiene	77-47-4	0.057	2.4
		HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
		Hexachloroethane	67-72-1	0.055	30
		Hexachloropropylene	1888-71-7	0.035	30
		Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
		Iodomethane	74-88-4	0.19	65
		Isobutyl alcohol	78-83-1	5.6	170
		Isodrin	465-73-6	0.021	0.066

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Isosafrole	120-58-1	0.081	2.6
		Kepone	143-50-8	0.0011	0.13
		Methacrylonitrile	126-98-7	0.24	84
		Methanol	67-56-1	5.6	NA
		Methapyrilene	91-80-5	0.081	1.5
		Methoxychlor	72-43-5	0.25	0.18
		3-Methylcholanthrene	56-49-5	0.0055	15
		4,4-Methylene bis(2-chloroaniline)	101-14-4	0.50	30
		Methylene chloride	75-09-2	0.089	30
		Methyl ethyl ketone	78-93-3	0.28	36
		Methyl isobutyl ketone	108-10-1	0.14	33
		Methyl methacrylate	80-62-6	0.14	160
		Methyl methansulfonate	66-27-3	0.018	NA
		Methyl parathion	298-00-0	0.014	4.6
		Naphthalene	91-20-3	0.059	5.6
		2-Naphthylamine	91-59-8	0.52	NA
		p-Nitroaniline	100-01-6	0.028	28
		Nitrobenzene	98-95-3	0.068	14
		5-Nitro-o-toluidine	99-55-8	0.32	28
		p-Nitrophenol	100-02-7	0.12	29

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		N-Nitrosodiethylamine	55-18-5	0.40	28
		N-Nitrosodimethylamine	62-75-9	0.40	NA
		N-Nitroso-di-n-butylamine	924-16-3	0.40	17
		N-Nitrosomethylethylamine	10595-95-6	0.40	2.3
		N-Nitrosomorpholine	59-89-2	0.40	2.3
		N-Nitrosopiperidine	100-75-4	0.013	35
		N-Nitrosopyrrolidine	930-55-2	0.013	35
		Parathion	56-38-2	0.014	4.6
		Total PCBs (sum of all PCB isomers, or all Aroclors)	1336-36-3	0.10	10
		Pentachlorobenzene	608-93-5	0.055	10
		PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
		Pentachloronitrobenzene	82-68-8	0.055	4.8
		Pentachlorophenol	87-86-5	0.089	7.4
		Phenacetin	62-44-2	0.081	16
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2

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WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NON-WASTEWATERS
		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		1,3-Phenylene diamine	108-45-2	0.010	0.66
		Phorate	298-02-2	0.021	4.6
		Phthalic anhydride	85-44-9	0.055	NA
		Pronamide	23950-58-5	0.093	1.5
		Pyrene	129-00-0	0.067	8.2
		Pyridine	110-86-1	0.014	16
		Safrole	94-59-7	0.081	22
		Silvex (2,4,5-TP)	93-72-1	0.72	7.9
		2,4,5-T	93-76-5	0.72	7.9
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
		1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
		1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
		Tetrachloroethylene	127-18-4	0.056	6.0
		2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
		Toluene	108-88-3	0.080	10
		Toxaphene	8001-35-2	0.0095	2.6

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Bromoform (Tribromomethane)	75-25-2	0.63	15
		1,2,4-Trichlorobenzene	120-82-1	0.055	19
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Trichloroethylene	79-01-6	0.054	6.0
		Trichloromonofluoromethane	75-69-4	0.020	30
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		1,2,3-Trichloropropane	96-18-4	0.85	30
		1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.057	30
		tris(2,3-Dibromopropyl) phosphate	126-72-7	0.11	NA
		Vinyl chloride	75-01-4	0.27	6.0
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Antimony	7440-36-0	1.9	1.15 mg/l TCLP
		Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
		Barium	7440-39-3	1.2	21 mg/l TCLP
		Beryllium	7440-41-7	0.82	NA
		Cadmium	7440-43-9	0.69	0.11 mg/l TCLP

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	NA
		Fluoride	16964-48-8	35	NA
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Mercury	7439-97-6	0.15	0.025 mg/l TCLP
		Nickel	7440-02-0	3.98	11 mg/l TCLP
		Selenium	7782-49-2	0.82	5.7 mg/l TCLP
		Silver	7440-22-4	0.43	0.14 mg/l TCLP
		Sulfide	8496-25-8	14	NA
		Thallium	7440-28-0	1.4	NA
		Vanadium	7440-62-2	4.3	NA
K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol.	Naphthalene	91-20-3	0.059	5.6
		Pentachlorophenol	87-86-5	0.089	7.4
		Phenanthrene	85-01-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.080	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments.	Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
K003	Wastewater treatment sludge from the production of molybdate orange pigments.	Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
K004	Wastewater treatment sludge from the production of zinc yellow pigments.	Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
K005	Wastewater treatment sludge from the production of chrome green pigments.	Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous).	Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
	Wastewater treatment sludge from the production of chrome oxide green pigments (hydrated).	Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	NA
K007	Wastewater treatment sludge from the production of iron blue pigments.	Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590
K008	Oven residue from the production of chrome oxide green pigments.	Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
K009	Distillation bottoms from the production of acetaldehyde from ethylene.	Chloroform	67-66-3	0.046	6.0
K010	Distillation side cuts from the production of acetaldehyde from ethylene.	Chloroform	67-66-3	0.046	6.0
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile.	Acetonitrile	75-05-8	5.6	38
		Acrylonitrile	107-13-1	0.24	84
		Acrylamide	79-06-1	19	23
		Benzene	71-43-2	0.14	10
		Cyanide (Total)	57-12-5	1.2	590
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile.	Acetonitrile	75-05-8	5.6	38
		Acrylonitrile	107-13-1	0.24	84
		Acrylamide	79-06-1	19	23
		Benzene	71-43-2	0.14	10
		Cyanide (Total)	57-12-5	1.2	590
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile.	Acetonitrile	75-05-8	5.6	38
		Acrylonitrile	107-13-1	0.24	84
		Acrylamide	79-06-1	19	23
		Benzene	71-43-2	0.14	10
		Cyanide (Total)	57-12-5	1.2	590
K015	Still bottoms from the distillation of benzyl chloride.	Anthracene	120-12-7	0.059	3.4

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Benzal chloride	98-87-3	0.055	6.0
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Phenanthrene	85-01-8	0.059	5.6
		Toluene	108-88-3	0.080	10
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Nickel	7440-02-0	3.98	11 mg/l TCLP
K016	Heavy ends or distillation residues from the production of carbon tetrachloride.	Hexachlorobenzene	118-74-1	0.055	10
		Hexachlorobutadiene	87-68-3	0.055	5.6
		Hexachlorocyclopentadiene	77-47-4	0.057	2.4
		Hexachloroethane	67-72-1	0.055	30
		Tetrachloroethylene	127-18-4	0.056	6.0
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin.	bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
		1,2-Dichloropropane	78-87-5	0.85	18
		1,2,3-Trichloropropane	96-18-4	0.85	30
K018	Heavy ends from the fractionation column in ethyl chloride production.	Chloroethane	75-00-3	0.27	6.0
		Chloromethane	74-87-3	0.19	NA
		1,1-Dichloroethane	75-34-3	0.059	6.0

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		1,2-Dichloroethane	107-06-2	0.21	6.0
		Hexachlorobenzene	118-74-1	0.055	10
		Hexachlorobutadiene	87-68-3	0.055	5.6
		Hexachloroethane	67-72-1	0.055	30
		Pentachloroethane	76-01-7	NA	6.0
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production.	bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
		Chlorobenzene	108-90-7	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		p-Dichlorobenzene	106-46-7	0.090	NA
		1,2-Dichloroethane	107-06-2	0.21	6.0
		Fluorene	86-73-7	0.059	NA
		Hexachloroethane	67-72-1	0.055	30
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	NA
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,2,4-Trichlorobenzene	120-82-1	0.055	19
		1,1,1-Trichloroethane	71-55-6	0.054	6.0

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production.	1,2-Dichloroethane	107-06-2	0.21	6.0
		1,1,1,2-Tetrachloroethane	79-34-6	0.057	6.0
		Tetrachloroethylene	127-18-4	0.056	6.0
K021	Aqueous spent antimony catalyst waste from fluoromethanes production.	Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		Antimony	7440-36-0	1.9	1.15 mg/l TCLP
K022	Distillation bottom tars from the production of phenol/acetone from cumene.	Toluene	108-88-3	0.080	10
		Acetophenone	96-86-2	0.010	9.7
		Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	13
		Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	13
		Phenol	108-95-2	0.039	6.2
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Nickel	7440-02-0	3.98	11 mg/l TCLP
K023	Distillation light ends from the production of phthalic anhydride from naphthalene.	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28
		Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene.	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene.	NA	NA	LLEXT fb SSTRP fb CARBN; or CMBST	CMBST
K026	Stripping still tails from the production of methyl ethyl pyridines.	NA	NA	CMBST	CMBST
K027	Centrifuge and distillation residues from toluene diisocyanate production.	NA	NA	CARBN; or CMBST	CMBST
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane.	1,1-Dichloroethane	75-34-3	0.059	6.0
		trans-1,2-Dichloroethylene	156-60-5	0.054	30
		Hexachlorobutadiene	87-68-3	0.055	5.6
		Hexachloroethane	67-72-1	0.055	30
		Pentachloroethane	76-01-7	NA	6.0
		1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
		1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Cadmium	7440-43-9	0.69	NA
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Nickel	7440-02-0	3.98	11 mg/l TCLP
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane.	Chloroform	67-66-3	0.046	6.0
		1,2-Dichloroethane	107-06-2	0.21	6.0
		1,1-Dichloroethylene	75-35-4	0.025	6.0
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
		Vinyl chloride	75-01-4	0.27	6.0
K030	Column bodies or heavy ends from the combined production of trichloroethylene and perchloroethylene.	o-Dichlorobenzene	95-50-1	0.088	NA
		p-Dichlorobenzene	106-46-7	0.090	NA
		Hexachlorobutadiene	87-68-3	0.055	5.6
		Hexachloroethane	67-72-1	0.055	30
		Hexachloropropylene	1888-71-7	NA	30
		Pentachlorobenzene	608-93-5	NA	10
		Pentachloroethane	76-01-7	NA	6.0
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,2,4-Trichlorobenzene	120-82-1	0.055	19
K031	By-product salts generated in the production of MSMA and cacodylic acid.	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
K032	Wastewater treatment sludge from the production of chlordane.	Hexachlorocyclopentadiene	77-47-4	0.057	2.4
		Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Heptachlor	76-44-8	0.0012	0.066
		Heptachlor epoxide	1024-57-3	0.016	0.066
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane.	Hexachlorocyclopentadiene	77-47-4	0.057	2.4
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane.	Hexachlorocyclopentadiene	77-47-4	0.057	2.4
K035	Wastewater treatment sludges generated in the production of creosote.	Acenaphthene	83-32-9	NA	3.4
		Anthracene	120-12-7	NA	3.4
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Chrysene	218-01-9	0.059	3.4
		o-Cresol	95-48-7	0.11	5.6
		m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
		p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
		Dibenz(a,h)anthracene	53-70-3	NA	8.2
		Fluoranthene	206-44-0	0.068	3.4
		Fluorene	86-73-7	NA	3.4
		Indeno(1,2,3-cd)pyrene	193-39-5	NA	3.4
Naphthalene	91-20-3	0.059	5.6		

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton.	Disulfoton	298-04-4	0.017	6.2
K037	Wastewater treatment sludges from the production of disulfoton.	Disulfoton	298-04-4	0.017	6.2
		Toluene	108-88-3	0.080	10
K038	Wastewater from the washing and stripping of phorate production.	Phorate	298-02-2	0.021	4.6
K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate.	NA	NA	CARBN; or CMBST	CMBST
K040	Wastewater treatment sludge from the production of phorate.	Phorate	298-02-2	0.021	4.6
K041	Wastewater treatment sludge from the production of toxaphene.	Toxaphene	8001-35-2	0.0095	2.6
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T.	o-Dichlorobenzene	95-50-1	0.088	6.0
		p-Dichlorobenzene	106-46-7	0.090	6.0
		Pentachlorobenzene	608-93-5	0.055	10
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		1,2,4-Trichlorobenzene	120-82-1	0.055	19
K043	2,6-Dichlorophenol waste from the production of 2,4-D.	2,4-Dichlorophenol	120-83-2	0.044	14
		2,6-Dichlorophenol	187-65-0	0.044	14
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
		2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
		Pentachlorophenol	87-86-5	0.089	7.4
		Tetrachloroethylene	127-18-4	0.056	6.0
		HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
		PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
		TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
K044	Wastewater treatment sludges from the manufacturing and processing of explosives.	NA	NA	DEACT	DEACT
K045	Spent carbon from the treatment of wastewater containing explosives.	NA	NA	DEACT	DEACT
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds.	Lead	7439-92-1	0.69	0.75 mg/l TCLP
K047	Pink/red water from TNT operations	NA	NA	DEACT	DEACT
K048	Dissolved air flotation (DAF) float from the petroleum refining	Benzene	71-43-2	0.14	10

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
	industry.	Benzo(a)pyrene	50-32-8	0.061	3.4
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		Chrysene	218-01-9	0.059	3.4
		Di-n-butyl phthalate	84-74-2	0.057	28
		Ethylbenzene	100-41-4	0.057	10
		Fluorene	86-73-7	0.059	NA
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-33	0.080	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11 mg/l TCLP
K049	Slop oil emulsion solids from the petroleum refining industry.	Anthracene	120-12-7	0.059	3.4
		Benzene	71-43-2	0.14	10
		Benzo(a)pyrene	50-32-8	0.061	3.4

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		Carbon disulfide	75-15-0	3.8	NA
		Chrysene	218-01-9	0.059	3.4
		2,4-Dimethylphenol	105-67-9	0.036	NA
		Ethylbenzene	100-41-4	0.057	10
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.080	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11 mg/l TCLP
K050	Heat exchanger bundle cleaning sludge from the petroleum refining industry.	Benzo(a)pyrene	50-32-8	0.061	3.4
		Phenol	108-95-2	0.039	6.2
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11 mg/l TCLP
K051	API separator sludge from the petroleum refining industry.	Acenaphthene	83-32-9	0.059	NA
		Anthracene	120-12-7	0.059	3.4
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzene	71-43-2	0.14	10
		Benzo(a)pyrene	50-32-8	0.061	3.4
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		Chrysene	218-01-9	0.059	3.4
		Di-n-butyl phthalate	105-67-9	0.057	28
		Ethylbenzene	100-41-4	0.057	10
		Fluorene	86-73-7	0.059	NA
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.08	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
	Cyanides (Total) ⁷	57-12-5	1.2	590	

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	NA
		Nickel	7440-02-0	NA	11 mg/l TCLP
K052	Tank bottoms (leaded) from the petroleum refining industry.	Benzene	71-43-2	0.14	10
		Benzo(a)pyrene	50-32-8	0.061	3.4
		o-Cresol	95-48-7	0.11	5.6
		m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
		p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
		2,4-Dimethylphenol	105-67-9	0.036	NA
		Ethylbenzene	100-41-4	0.057	10
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Toluene	108-88-3	0.08	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Lead	7439-92-1	0.69	NA

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Nickel	7440-02-0	NA	11 mg/l TCLP
K060	Ammonia still lime sludge from coking operations.	Benzene	71-43-2	0.14	10
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Naphthalene	91-20-3	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Cyanides (Total) ⁷	57-12-5	1.2	590
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.	Antimony	7440-36-0	NA	1.15 mg/l TCLP
		Arsenic	7440-38-2	NA	5.0 mg/l TCLP
		Barium	7440-39-3	NA	21 mg/l TCLP
		Beryllium	7440-41-7	NA	1.22 mg/l TCLP
		Cadmium	7440-43-9	0.69	0.11 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Mercury	7439-97-6	NA	0.025 mg/l TCLP
		Nickel	7440-02-0	3.98	11 mg/l TCLP
		Selenium	7782-49-2	NA	5.7 mg/l TCLP
		Silver	7440-22-4	NA	0.14 mg/l TCLP
		Thallium	7440-28-0	NA	0.20 mg/l TCLP
		Zinc	7440-66-6	NA	4.3 mg/l TCLP

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
K062	Spent pickle liquor generated by steel finishing operations of facilities within the iron and steel industry (SIC Codes 331 and 332).	Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Nickel	7440-02-0	3.98	NA
K069	Emission control dust/sludge from secondary lead smelting. - Calcium Sulfate (Low Lead) Subcategory	Cadmium	7440-43-9	0.69	0.11 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
	Emission control dust/sludge from secondary lead smelting. - Non-Calcium Sulfate (High Lead) Subcategory	NA	NA	NA	RLEAD
K071	K071 (Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used) non-wastewaters that are residues from RMERC.	Mercury	7439-97-6	NA	0.20 mg/l TCLP
	K071 (Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.) non-wastewaters that are not residues from RMERC.	Mercury	7439-97-6	NA	0.025 mg/l TCLP
	All K071 wastewaters.	Mercury	7439-97-6	0.15	NA
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production.	Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		Hexachloroethane	67-72-1	0.055	30
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
K083	Distillation bottoms from aniline production.	Aniline	62-53-3	0.81	14
		Benzene	71-43-2	0.14	10

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Cyclohexanone	108-94-1	0.36	NA
		Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	0.92	13
		Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	0.92	13
		Nitrobenzene	98-95-3	0.068	14
		Phenol	108-95-2	0.039	6.2
		Nickel	7440-02-0	3.98	11 mg/l TCLP
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes.	Benzene	71-43-2	0.14	10
		Chlorobenzene	108-90-7	0.057	6.0
		m-Dichlorobenzene	541-73-1	0.036	6.0
		o-Dichlorobenzene	95-50-1	0.088	6.0
		p-Dichlorobenzene	106-46-7	0.090	6.0
		Hexachlorobenzene	118-74-1	0.055	10
		Total PCBs (sum of all PCB isomers, or all Aroclors)	1336-36-3	0.10	10
		Pentachlorobenzene	608-93-5	0.055	10
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		1,2,4-Trichlorobenzene	120-82-1	0.055	19
K086	Solvent wastes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.	Acetone	67-64-1	0.28	160
		Acetophenone	96-86-2	0.010	9.7
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		n-Butyl alcohol	71-36-3	5.6	2.6
		Butylbenzyl phthalate	85-68-7	0.017	28
		Cyclohexanone	108-94-1	0.36	NA
		o-Dichlorobenzene	95-50-1	0.088	6.0
		Diethyl phthalate	84-66-2	0.20	28
		Dimethyl phthalate	131-11-3	0.047	28
		Di-n-butyl phthalate	84-74-2	0.057	28
		Di-n-octyl phthalate	117-84-0	0.017	28
		Ethyl acetate	141-78-6	0.34	33
		Ethylbenzene	100-41-4	0.057	10
		Methanol	67-56-1	5.6	NA
		Methyl ethyl ketone	78-93-3	0.28	36
		Methyl isobutyl ketone	108-10-1	0.14	33
		Methylene chloride	75-09-2	0.089	30
		Naphthalene	91-20-3	0.059	5.6
Nitrobenzene	98-95-3	0.068	14		

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Toluene	108-88-3	0.080	10
		1,1,1-Trichloroethane	71-55-6	0.054	6.0
		Trichloroethylene	79-01-6	0.054	6.0
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
K087	Decanter tank tar sludge from coking operations.	Acenaphthylene	208-96-8	0.059	3.4
		Benzene	71-43-2	0.14	10
		Chrysene	218-01-9	0.059	3.4
		Fluoranthene	206-44-0	0.068	3.4
		Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Toluene	108-88-3	0.080	10
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
K088	Spent potliners from primary aluminum reduction.	Acenaphthene	83-32-9	0.059	3.4

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Anthracene	120-12-7	0.059	3.4
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Benzo(b)fluoranthene	205-99-2	0.11	6.8
		Benzo(k)fluoranthene	207-08-9	0.11	6.8
		Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Fluoranthene	206-44-0	0.068	3.4
		Indeno(1,2,3,-cd)pyrene	193-39-5	0.0055	3.4
		Phenanthrene	85-01-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2
		Antimony	7440-36-0	1.9	1.15 mg/l TCLP
		Arsenic	7440-38-2	1.4	26.1 mg/kg
		Barium	7440-39-3	1.2	21 mg/l TCLP
		Beryllium	7440-41-7	0.82	1.22 mg/l TCLP
		Cadmium	7440-43-9	0.69	0.11 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.11 mg/l TCLP
		Mercury	7439-97-6	0.15	0.025 mg/l TCLP

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Nickel	7440-02-0	3.98	11.0 mg/l TCLP
		Selenium	7782-49-2	0.82	5.7 mg/l TCLP
		Silver	7440-22-4	0.43	0.14 mg/l TCLP
		Cyanide (Total) ⁷	57-12-5	1.2	590
		Cyanide (Amenable) ⁷	57-12-5	0.86	30
		Fluoride	16984-48-8	35	N/A
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene.	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28
		Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene.	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28
		Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28
K095	Distillation bottoms from the production of 1,1,1-trichloroethane.	Hexachloroethane	67-72-1	0.055	30
		Pentachloroethane	76-01-7	0.055	6.0
		1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
		1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Trichloroethylene	79-01-6	0.054	6.0

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane.	m-Dichlorobenzene	541-73-1	0.036	6.0
		Pentachloroethane	76-01-7	0.055	6.0
		1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
		1,1,2,2-Tetrachloroethane	79-34-6	0.057	6.0
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,2,4-Trichlorobenzene	120-82-1	0.055	19
		1,1,2-Trichloroethane	79-00-5	0.054	6.0
		Trichloroethylene	79-01-6	0.054	6.0
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane.	Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
		Heptachlor	76-44-8	0.0012	0.066
		Heptachlor epoxide	1024-57-3	0.016	0.066
		Hexachlorocyclopentadiene	77-47-4	0.057	2.4
K098	Untreated process wastewater from the production of toxaphene.	Toxaphene	8001-35-2	0.0095	2.6
K099	Untreated wastewater from the production of 2,4-D.	2,4-Dichlorophenoxyacetic acid	94-75-7	0.72	10
		HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		HxCDFs (All Hexachlorodibenzofurans)	NA	0.000063	0.001
		PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	0.000063	0.001

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		PeCDFs (All Pentachlorodibenzofurans)	NA	0.000035	0.001
		TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	0.000063	0.001
		TCDFs (All Tetrachlorodibenzofurans)	NA	0.000063	0.001
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.	Cadmium	7440-43-9	0.69	0.11 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	o-Nitroaniline	88-74-4	0.27	14
		Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
		Cadmium	7440-43-9	0.69	NA
		Lead	7439-92-1	0.69	NA
		Mercury	7439-97-6	0.15	NA
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	o-Nitrophenol	88-75-5	0.028	13
		Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
		Cadmium	7440-43-9	0.69	NA
		Lead	7439-92-1	0.69	NA
		Mercury	7439-97-6	0.15	NA
K103	Process residues from aniline extraction from the production of aniline.	Aniline	62-53-3	0.81	14
		Benzene	71-43-2	0.14	10

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		2,4-Dinitrophenol	51-28-5	0.12	160
		Nitrobenzene	98-95-3	0.068	14
		Phenol	108-95-2	0.039	6.2
K104	Combined wastewater streams generated from nitrobenzene/aniline production.	Aniline	62-53-3	0.81	14
		Benzene	71-43-2	0.14	10
		2,4-Dinitrophenol	51-28-5	0.12	160
		Nitrobenzene	98-95-3	0.068	14
		Phenol	108-95-2	0.039	6.2
		Cyanides (Total) ⁷	57-12-5	1.2	590
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes.	Benzene	71-43-2	0.14	10
		Chlorobenzene	108-90-7	0.057	6.0
		2-Chlorophenol	95-57-8	0.044	5.7
		o-Dichlorobenzene	95-50-1	0.088	6.0
		p-Dichlorobenzene	106-46-7	0.090	6.0
		Phenol	108-95-2	0.039	6.2
		2,4,5-Trichlorophenol	95-95-4	0.18	7.4
		2,4,6-Trichlorophenol	88-06-2	0.035	7.4
K106	K106 (wastewater treatment sludge from the mercury cell process in chlorine production) non-wastewaters that contain greater than or equal to 260 mg/kg total mercury.	Mercury	7439-97-6	NA	RMERC

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
	K106 (wastewater treatment sludge from the mercury cell process in chlorine production) non-wastewaters that contain less than 260 mg/kg total mercury that are residues from RMERC.	Mercury	7439-97-6	NA	0.20 mg/l TCLP
	Other K106 non-wastewaters that contain less than 260 mg/kg total mercury and are not residues from RMERC.	Mercury	7439-97-6	NA	0.025 mg/l TCLP
	All K106 wastewaters.	Mercury	7439-97-6	0.15	NA
K107	Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K109	Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K110	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides.	NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K111	Product washwaters from the production of dinitrotoluene via nitration of toluene	2,4-Dinitrotoluene	121-14-2	0.32	140
		2,6-Dinitrotoluene	606-20-2	0.55	28
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene.	NA	NA	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via	NA	NA	CARBN; OR CMBST	CMBST

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
	hydrogenation of dinitrotoluene.				
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	NA	NA	CARBN; or CMBST	CMBST
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene.	Nickel	7440-02-0	3.98	11 mg/l TCLP
		NA	NA	CARBN; or CMBST	CMBST
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine.	NA	NA	CARBN; or CMBST	CMBST
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene.	Methyl bromide (Bromomethane)	74-83-9	0.11	15
		Chloroform	67-66-3	0.046	6.0
		Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
K118	Spent absorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	Methyl bromide (Bromomethane)	74-83-9	0.11	15
		Chloroform	67-66-3	0.046	6.0
		Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
K123	Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salts.	NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
K124	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts.	NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
K125	Filtration, evaporation, and centrifugation solids from the	NA	NA	CMBST; or CHOXD fb	CMBST

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
	production of ethylenebisdithiocarbamic acid and its salts.			(BIODG or CARBN)	
K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts.	NA	NA	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
K131	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide.	Methyl bromide (Bromomethane)	74-83-9	0.11	15
K132	Spent absorbent and wastewater separator solids from the production of methyl bromide.	Methyl bromide (Bromomethane)	74-83-9	0.11	15
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene.	Methyl bromide (Bromomethane)	74-83-9	0.11	15
		Chloroform	67-66-3	0.046	6.0
		Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
K141	Process residues from the recovery of coal tar, including, but not limited to, collecting sump residues from the production of coke or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank tar sludge from coking operations).	Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-2-8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
K142	Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal.	Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
K143	Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal.	Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Chrysene	218-01-9	0.059	3.4
K144	Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from	Benzene	71-43-2	0.14	10

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
	the recovery of coke by-products produced from coal.				
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
K145	Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal.	Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Naphthalene	91-20-3	0.059	5.6
K147	Tar storage tank residues from coal tar refining.	Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
K148	Residues from coal tar distillation, including, but not limited to, still bottoms.	Benzo(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
K149	Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups. (This waste does not include still bottoms from the distillations of benzyl chloride.)	Chlorobenzene	108-90-7	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		Chloromethane	74-87-3	0.19	30
		p-Dichlorobenzene	106-46-7	0.090	6.0
		Hexachlorobenzene	118-74-1	0.055	10

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Pentachlorobenzene	608-93-5	0.055	10
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		Toluene	108-88-3	0.080	10
K150	Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		Chloromethane	74-87-3	0.19	30
		p-Dichlorobenzene	106-46-7	0.090	6.0
		Hexachlorobenzene	118-74-1	0.055	10
		Pentachlorobenzene	608-93-5	0.055	10
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0
		Tetrachloroethylene	127-18-4	0.056	6.0
		1,2,4-Trichlorobenzene	120-82-1	0.055	19
K151	Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups.	Benzene	71-43-2	0.14	10
		Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		Hexachlorobenzene	118-74-1	0.055	10
		Pentachlorobenzene	608-93-5	0.055	10
		1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
		Tetrachloroethylene	127-18-4	0.056	6.0

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WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NON-WASTEWATERS
		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Toluene	108-88-3	0.080	10
K156	Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes. ¹⁰	Acetonitrile	75-05-8	5.6	1.8
		Acetophenone	98-86-2	0.010	9.7
		Aniline	62-53-3	0.81	14
		Benomyl	17804-35-2	0.056	1.4
		Benzene	71-43-2	0.14	10
		Carbaryl	63-25-2	0.006	0.14
		Carbenzadim	10605-21-7	0.056	1.4
		Carbofuran	1563-66-2	0.006	0.14
		Carbosulfan	55285-14-8	0.028	1.4
		Chlorobenzene	108-90-7	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		o-Dichlorobenzene	95-50-1	0.088	6.0
		Methomyl	16752-77-5	0.028	0.14
		Methylene chloride	75-09-2	0.089	30
		Methyl ethyl ketone	78-93-3	0.28	36
		Naphthalene	91-20-3	0.059	5.6
		Phenol	108-95-2	0.039	6.2
Pyridine	110-86-1	0.014	16		

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Toluene	108-88-3	0.080	10
		Triethylamine	121-44-8	0.081	1.5
K157	Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes. ¹⁰	Carbon tetrachloride	56-23-5	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		Chloromethane	74-87-3	0.19	30
		Methomyl	16752-77-5	0.028	0.14
		Methylene chloride	75-09-2	0.089	30
		Methyl ethyl ketone	78-93-3	0.28	36
		Pyridine	110-86-1	0.014	16
		Triethylamine	121-44-8	0.081	1.5
K158	Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes. ¹⁰	Benomyl	17804-35-2	0.056	1.4
		Benzene	71-43-2	0.14	10
		Carbenzadim	10605-21-7	0.056	1.4
		Carbofuran	1563-66-2	0.006	0.14
		Carbosulfan	55285-14-8	0.028	1.4
		Chloroform	67-66-3	0.046	6.0
		Methylene chloride	75-09-2	0.089	30
		Phenol	108-95-2	0.039	6.2
K159	Organics from the treatment of thiocarbamate wastes. ¹⁰	Benzene	71-43-2	0.14	10

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Butylate	2008-41-5	0.042	1.4
		EPTC (Eptam)	759-94-4	0.042	1.4
		Molinate	2212-67-1	0.042	1.4
		Pebulate	1114-71-2	0.042	1.4
		Vernolate	1929-77-7	0.042	1.4
K161	Purification solids (including filtration, evaporation, and centrifugation solids), baghouse dust and floor sweepings from the production of dithiocarbamate acids and their salts. ¹⁰	Antimony	7440-36-0	1.9	1.15 mg/l TCLP
		Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
		Carbon disulfide	75-15-0	3.8	4.8 mg/l TCLP
		Dithiocarbamates (total)	137-30-4	0.028	28
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Nickel	7440-02-0	3.98	11 mg/l TCLP
		Selenium	7782-49-2	0.82	5.7 mg/l TCLP
K169	Crude oil tank sediment from petroleum refining operations	Bez(a) anthracene	56-55-3	0.059	3.4
		Benzene	71-43-2	0.14	10
		Benzo(g,h,i)anthracene	191-24-2	0.0055	1.8
		Chrysene	218-01-9	0.059	3.4
		Ethyl benzene	100-41-4	0.057	10
		Fluorene	86-73-7	0.059	3.4
		Napthalene	91-20-3	0.059	5.6
		Phenanthrene	81-05-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2
		Toluene (methyl benzene)	108-88-3	0.080	10
Xylene(s) (Total)	1330-20-7	0.32	30		
K170	Clarified slurry oil sediment from petroleum refining operations	Benz(a)anthracene	56-55-3	0.059	3.4
		Benzene	71-43-2	0.14	10
		Benzo(g,h,i)perylene	191-24-2	0.0055	1.8

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴		
		Chrysene	218-01-9	0.059	3.4		
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2		
		Ethyl benzene	100-41-4	0.057	10		
		Fluorene	86-73-7	0.059	3.4		
		Indeno(1,2,3,-cd)pyrene	193-39-5	0.0055	3.4		
		Napthalene	91-20-3	0.059	5.6		
		Phenanthrene	81-05-8	0.059	5.6		
		Pyrene	129-00-0	0.067	8.2		
		Toluene (methyl benzene)	108-88.3	0.080	10		
		Xylene(s) (Total)	1330-20-70	0.32	30		
		Benz(a)anthracene	56-55-3	0.059	3.4		
		Benzene	71-43-2	0.14	10		
		K171	Spent hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media).	Chrysene	218-01-9	0.059	3.4
Ethyl benzene	100-41-1			0.057	10		
Napthalene	91-20-3			0.059	5.6		
Phenanthrene	81-05-8			0.059	5.6		
Pyrene	129-00-0			0.067	8.2		
Toluene (methyl benzene)	108-88-3			0.080	10		
Xylene(s) (Total)	1330-20-7			0.32	30		
Arsenic	7740-38-2			1.4	5 mg/L TCLP		
Nickel	7440-02-0			3.98	11.0 mg/L TCLP		
Vanadium	7440-62-2			4.3	1.6 mg/L TCLP		
Reactive sulfides	N/A			DEACT	DEACT		
K172	Spent hydrorefining catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media).			Benzene	71-43-2	0.14	10
				Ethyl benzene	100-41-1	0.057	10
		Toluene (methyl benzene)	108-88-3	0.080	10		
		Xylenes(s) (Total)	1330-20-7	0.32	30		
		Antimony	7740-36-0	1.9	1.15 mg/L TCLP		
		Arsenic	7740-38-2	1.4	5 mg/L TCLP		
		Nickel	7440-02-0	3.98	11.0 mg/L TCLP		
		Vanadium	7440-62-2	4.3	1.6 mg/L TCLP		
		Reactive sulfide	N/A	DEACT	DEACT		
				1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	35822-46-9	0.000035 or CMBST ¹¹	0.0025 or CMBST ¹¹
1,2,3,4,6,7,8-Heptachlorodibenzo-furan (1,2,3,4,6,7,8-HpCDF)	67562-39-4			0.000035 or CMBST ¹¹	0.0025 or CMBST ¹¹		
1,2,3,4,7,8,9-Heptachlorodibenzo-p-furan (1,2,3,4,7,8,9-HpCDF)	55673-89-7			0.000035 or CMBST ¹¹	0.0025 or CMBST ¹¹		

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
K174	Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer	HxCDDs (all Hexachlorodibenzo-p-dioxins)	34465-46-8	0.000035 or CMBST ¹¹	0.0025 or CMBST ¹¹
		HxCDFs (all Hexachlorodibenzofurans)	55684-94-1	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
		1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
		1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	0.000063 or CMBST ¹¹	0.005 or CMBST ¹¹
		PeCDDs (all pentachlorodibenzo-p-dioxins)	36008-22-9	0.000063 or CMBST ¹¹	0.005 or CMBST ¹¹
		PeCDFs (all pentachlorodibenzofurans)	30402-15-4	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
		TCDDs (all tetrachlorodibenzo-p-dioxins)	41903-57-5	0.000035 or CMBST ¹¹	0.001 or CMBST ¹¹
		TCDFs (all tetrachlorodibenzofurans)	55722-27-5	0.000063 or CMBST ¹¹	0.001 or CMBST ¹¹
K175	Wastewater treatment sludge from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process.	Arsenic	7440-36-0	1.4	5.0 mg/L TCLP
K175		Mercury ¹²	7438-97-6	NA	0.025 mg/L TCLP
		pH ¹²		NA	pH ≤ 6.0
	All K175 wastewaters	Mercury	7438-97-6	0.15	NA
K181	Non-wastewaters from the production of dyes and/or pigments (including non-wastewaters commingled at the point of generation with non-wastewaters from other processes) that, at the point of generation, contain mass loadings of any of the constituents identified in paragraph (c) of § 261.32 that are equal to or greater than the corresponding paragraph (c) levels, as determined on a calendar year basis.	Aniline	62-53-3	0.81	14
		O-Anisidine (2-methoxyaniline)	90-04-0	0.010	0.66
		4-Chloroaniline	106-47-8	0.46	
		p- Cresidine	120-71-8	0.010	0.66
		2,4-Dimethylaniline (2,4-xylidine)	95-68-1	0.010	0.66
		1,2-Phenylene-diamine	95-54-5	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG fb CARBN
		1,3-Phenylene-diamine	108-45-2	0.010	0.66
P001	Warfarin, & salts, when present at concentrations greater than	Warfarin	81-81-2	(WETOX or CHOXD) fb	CMBST

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
	0.3%			CARBN; or CMBST	
P002	1-Acetyl-2-thiourea	1-Acetyl-2-thiourea	591-08-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P003	Acrolein	Acrolein	107-02-8	0.29	CMBST
P004	Aldrin	Aldrin	309-00-2	0.021	0.066
P005	Allyl alcohol	Allyl alcohol	107-18-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P006	Aluminum phosphide	Aluminum phosphide	20859-73-8	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
P007	5-Aminomethyl 3-isoxazolol	5-Aminomethyl 3-isoxazolol	2763-96-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P008	4-Aminopyridine	4-Aminopyridine	504-24-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P009	Ammonium picrate	Ammonium picrate	131-74-8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P010	Arsenic acid	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
P011	Arsenic pentoxide	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
P012	Arsenic trioxide	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
P013	Barium cyanide	Barium	7440-39-3	NA	21 mg/l TCLP
		Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
P014	Thiophenol (Benzene thiol)	Thiophenol (Benzene thiol)	108-98-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
P015	Beryllium dust	Beryllium	7440-41-7	RMETL; or RTHRM	RMETL; or RTHRM
P016	Dichloromethyl ether (Bis(chloromethyl)ether)	Dichloromethyl ether	542-88-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P017	Bromoacetone	Bromoacetone	598-31-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P018	Brucine	Brucine	357-57-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P020	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	88-85-7	0.066	2.5
P021	Calcium cyanide	Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
P022	Carbon disulfide	Carbon disulfide	75-15-0	3.8	CMBST
		Carbon disulfide; alternate ⁶ standard for non-wastewaters only	75-15-0	NA	4.8 mg/l TCLP
P023	Chloroacetaldehyde	Chloroacetaldehyde	107-20-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P024	p-Chloroaniline	p-Chloroaniline	106-47-8	0.46	16
P026	1-(o-Chlorophenyl)thiourea	1-(o-Chlorophenyl)thiourea	5344-82-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P027	3-Chloropropionitrile	3-Chloropropionitrile	542-76-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P028	Benzyl chloride	Benzyl chloride	100-44-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
P029	Copper cyanide	Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
P030	Cyanides (soluble salts and complexes)	Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
P031	Cyanogen	Cyanogen	460-19-5	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
P033	Cyanogen chloride	Cyanogen chloride	506-77-4	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
P034	2-Cyclohexyl-4,6-dinitrophenol	2-Cyclohexyl-4,6-dinitrophenol	131-89-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P036	Dichlorophenylarsine	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
P037	Dieldrin	Dieldrin	60-57-1	0.017	0.13
P038	Diethylarsine	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
P039	Disulfoton	Disulfoton	298-04-4	0.017	6.2
P040	0,0-Diethyl O-pyrazinyl phosphorothioate	0,0-Diethyl O-pyrazinyl phosphorothioate	297-97-2	CARBN; or CMBST	CMBST
P041	Diethyl-p-nitrophenyl phosphate	Diethyl-p-nitrophenyl phosphate	311-45-5	CARBN; or CMBST	CMBST
P042	Epinephrine	Epinephrine	51-43-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P043	Diisopropylfluorophosphate (DFP)	Diisopropylfluorophosphate (DFP)	55-91-4	CARBN; or CMBST	CMBST
P044	Dimethoate	Dimethoate	60-51-5	CARBN; or CMBST	CMBST
P045	Thiofanox	Thiofanox	39196-18-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
P046	alpha, alpha-Dimethylphenethylamine	alpha, alpha-Dimethylphenethylamine	122-09-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P047	4,6-Dinitro-o-cresol	4,6-Dinitro-o-cresol	543-52-1	0.28	160
	4,6-Dinitro-o-cresol salts	NA	NA	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P048	2,4-Dinitrophenol	2,4-Dinitrophenol	51-28-5	0.12	160
P049	Dithiobiuret	Dithiobiuret	541-53-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P050	Endosulfan	Endosulfan I	939-98-8	0.023	0.066
		Endosulfan II	33213-6-5	0.029	0.13
		Endosulfan sulfate	1031-07-8	0.029	0.13
P051	Endrin	Endrin	72-20-8	0.0028	0.13
		Endrin aldehyde	7421-93-4	0.025	0.13
P054	Aziridine	Aziridine	151-56-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P056	Fluorine	Fluoride (measured in wastewaters only)	16964-48-8	35	ADGAS fb NEUTR
P057	Fluoroacetamide	Fluoroacetamide	640-19-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P058	Fluoroacetic acid, sodium salt	Fluoroacetic acid, sodium salt	62-74-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P059	Heptachlor	Heptachlor	76-44-8	0.0012	0.066
		Heptachlor epoxide	1024-57-3	0.016	0.066

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
P060	Isodrin	Isodrin	465-73-6	0.021	0.066
P062	Hexaethyl tetraphosphate	Hexaethyl tetraphosphate	757-58-4	CARBN; or CMBST	CMBST
P063	Hydrogen cyanide	Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
P064	Isocyanic acid, ethyl ester	Isocyanic acid, ethyl ester	624-83-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P065	Mercury fulminate non-wastewaters, regardless of their total mercury content, that are not incinerator residues or are not residues from RMERC.	Mercury	7439-97-6	NA	IMERC
	Mercury fulminate non-wastewaters that are either incinerator residues or are residues from RMERC; and contain greater than or equal to 260 mg/kg total mercury.	Mercury	7439-97-6	NA	RMERC
	Mercury fulminate non-wastewaters that are residues from RMERC and contain less than 260 mg/kg total mercury.	Mercury	7439-97-6	NA	0.20 mg/l TCLP
	Mercury fulminate non-wastewaters that are incinerator residues and contain less than 260 mg/kg total mercury.	Mercury	7439-97-6	NA	0.025 mg/l TCLP
	All mercury fulminate wastewaters.	Mercury	7439-97-6	0.15	NA
P066	Methomyl	Methomyl	16752-77-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P067	2-Methyl-aziridine	2-Methyl-aziridine	75-55-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P068	Methyl hydrazine	Methyl hydrazine	60-34-4	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P069	2-Methylacetonitrile	2-Methylacetonitrile	75-86-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
P070	Aldicarb	Aldicarb	116-06-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P071	Methyl parathion	Methyl parathion	298-00-0	0.014	4.6
P072	1-Naphthyl-2-thiourea	1-Naphthyl-2-thiourea	86-88-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P073	Nickel carbonyl	Nickel	7440-02-0	3.98	11 mg/l TCLP
P074	Nickel cyanide	Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
		Nickel	7440-02-0	3.98	11 mg/l TCLP
P075	Nicotine and salts	Nicotine and salts	54-11-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P076	Nitric oxide	Nitric oxide	10102-43-9	ADGAS	ADGAS
P077	p-Nitroaniline	p-Nitroaniline	100-01-6	0.028	28
P078	Nitrogen dioxide	Nitrogen dioxide	10102-44-0	ADGAS	ADGAS
P081	Nitroglycerin	Nitroglycerin	55-63-0	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P082	N-Nitrosodimethylamine	N-Nitrosodimethylamine	62-75-9	0.40	2.3
P084	N-Nitrosomethylvinylamine	N-Nitrosomethylvinylamine	4549-40-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P085	Octamethylpyrophosphoramidate	Octamethylpyrophosphoramidate	152-16-9	CARBN; or CMBST	CMBST
P087	Osmium tetroxide	Osmium tetroxide	20816-12-0	RMETL; or RTHRM	RMETL; or RTHRM
P088	Endothall	Endothall	145-73-3	(WETOX or CHOXD) fb	CMBST

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
				CARBN; or CMBST	
P089	Parathion	Parathion	56-38-2	0.014	4.6
P092	Phenyl mercuric acetate non-wastewaters, regardless of their total mercury content, that are not incinerator residues or are not residues from RMERC.	Mercury	7439-97-6	NA	IMERC; or RMERC
	Phenyl mercuric acetate non-wastewaters that are either incinerator residues or are residues from RMERC; and still contain greater than or equal to 260 mg/kg total mercury.	Mercury	7439-97-6	NA	RMERC
	Phenyl mercuric acetate non-wastewaters that are residues from RMERC and contain less than 260 mg/kg total mercury.	Mercury	7439-97-6	NA	0.20 mg/l TCLP
	Phenyl mercuric acetate non-wastewaters that are incinerator residues and contain less than 260 mg/kg total mercury.	Mercury	7439-97-6	NA	0.025 mg/l TCLP
	All phenyl mercuric acetate wastewaters.	Mercury	7439-97-6	0.15	NA
P093	Phenylthiourea	Phenylthiourea	103-85-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P094	Phorate	Phorate	298-02-2	0.021	4.6
P095	Phosgene	Phosgene	75-44-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P096	Phosphine	Phosphine	7803-51-2	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
P097	Famphur	Famphur	52-85-7	0.017	15
P098	Potassium cyanide.	Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
P099	Potassium silver cyanide	Cyanides (Total) ⁷	57-12-5	1.2	590

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
		Silver	7440-22-4	0.43	0.14 mg/l TCLP
P101	Ethyl cyanide (Propanenitrile)	Ethyl cyanide (Propanenitrile)	107-12-0	0.24	360
P102	Propargyl alcohol	Propargyl alcohol	107-19-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P103	Selenourea	Selenium	7782-49-2	0.82	5.7 mg/l TCLP
P104	Silver cyanide	Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
		Silver	7440-22-4	0.43	0.14 mg/l TCLP
P105	Sodium azide	Sodium azide	26628-22-8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P106	Sodium cyanide	Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
P108	Strychnine and salts	Strychnine and salts	57-24-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P109	Tetraethyldithiopyrophosphate	Tetraethyldithiopyrophosphate	3689-24-5	CARBN; or CMBST	CMBST
P110	Tetraethyl lead	Lead	7439-92-1	0.69	0.75 mg/l TCLP
P111	Tetraethylpyrophosphate	Tetraethylpyrophosphate	107-49-3	CARBN; or CMBST	CMBST
P112	Tetranitromethane	Tetranitromethane	509-14-8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P113	Thallic oxide	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
P114	Thallium selenite	Selenium	7782-49-2	0.82	5.7 mg/l TCLP
P115	Thallium (I) sulfate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
P116	Thiosemicarbazide	Thiosemicarbazide	79-19-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P118	Trichloromethanethiol	Trichloromethanethiol	75-70-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P119	Ammonium vanadate	Vanadium (measured in wastewaters only)	7440-62-2	4.3	STABL
P120	Vanadium pentoxide	Vanadium (measured in wastewaters only)	7440-62-2	4.3	STABL
P121	Zinc cyanide	Cyanides (Total) ⁷	57-12-5	1.2	590
		Cyanides (Amenable) ⁷	57-12-5	0.86	30
P122	Zinc phosphide Zn ₃ P ₂ , when present at concentrations greater than 10%	Zinc Phosphide	1314-84-7	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
P123	Toxaphene	Toxaphene	8001-35-2	0.0095	2.6
P127	Carbofuran	Carbofuran	1563-66-2	0.006	0.14
P128	Mexacarbate	Mexacarbate	315-18-4	0.056	1.4
P185	Tirpate ¹⁰	Tirpate	26419-73-8	0.056	0.28
P188	Physostigmine salicylate	Physostigmine salicylate	57-64-7	0.056	1.4
P189	Carbosulfan	Carbosulfan	55285-14-8	0.028	1.4
P190	Metolcarb	Metolcarb	1129-41-5	0.056	1.4

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
P191	Dimetilan ¹⁰	Dimetilan	644-64-4	0.056	1.4
P192	Isolan ¹⁰	Isolan	119-38-0	0.056	1.4
P194	Oxamyl	Oxamyl	23135-22-0	0.056	0.028
P196	Manganese dimethyldithiocarbamate	Dithiocarbamates (total)	NA	0.028	0.28
P197	Formparanate ¹⁰	Formparanate	17702-57-7	0.056	1.4
P198	Formetanate hydrochloride	Formetanate hydrochloride	23422-53-9	0.056	1.4
P199	Methiocarb	Methiocarb	2032-65-7	0.056	1.4
P201	Promecarb	Promecarb	2631-37-0	0.056	1.4
P202	m-Cumenyl methylcarbamate	m-Cumenyl methylcarbamate	64-00-6	0.056	1.4
P203	Aldicarb sulfone	Aldicarb sulfone	1646-88-4	0.056	0.28
P204	Physostigmine	Physostigmine	57-47-6	0.056	1.4
P205	Ziram	Dithiocarbamates (total)	NA	0.028	28
U001	Acetaldehyde	Acetaldehyde	75-07-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U002	Acetone	Acetone	67-64-1	0.28	160
U003	Acetonitrile	Acetonitrile	75-05-8	5.6	CMBST
		Acetonitrile; alternate ⁶ standard for non-wastewaters only	75-05-8	NA	38
U004	Acetophenone	Acetophenone	98-86-2	0.010	9.7
U005	2-Acetylaminofluorene	2-Acetylaminofluorene	53-96-3	0.059	140
U006	Acetyl chloride	Acetyl Chloride	75-36-5	(WETOX or CHOXD) fb	CMBST

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
				CARBN; or CMBST	
U007	Acrylamide	Acrylamide	79-06-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U008	Acrylic acid	Acrylic acid	79-10-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U009	Acrylonitrile	Acrylonitrile	107-13-1	0.24	84
U010	Mitomycin C	Mitomycin C	50-07-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U011	Amitrole	Amitrole	61-82-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U012	Aniline	Aniline	62-53-3	0.81	14
U014	Auramine	Auramine	492-80-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U015	Azaserine	Azaserine	115-02-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U016	Benz(c)acridine	Benz(c)acridine	225-51-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U017	Benzal chloride	Benzal chloride	98-87-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U018	Benz(a)anthracene	Benz(a)anthracene	56-55-3	0.059	3.4
U019	Benzene	Benzene	71-43-2	0.14	10
U020	Benzenesulfonyl chloride	Benzenesulfonyl chloride	98-09-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U021	Benzidine	Benzidine	92-87-5	(WETOX or CHOXD) fb	CMBST

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
				CARBN; or CMBST	
U022	Benzo(a)pyrene	Benzo(a)pyrene	50-32-8	0.061	3.4
U023	Benzotrichloride	Benzotrichloride	98-07-7	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U024	bis(2-Chloroethoxy)methane	bis(2-Chloroethoxy)methane	111-91-1	0.036	7.2
U025	bis(2-Chloroethyl)ether	bis(2-Chloroethyl)ether	111-44-4	0.033	6.0
U026	Chlornaphazine	Chlornaphazine	494-03-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U027	bis(2-Chloroisopropyl)ether	bis(2-Chloroisopropyl)ether	39638-32-9	0.055	7.2
U028	bis(2-Ethylhexyl) phthalate	bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
U029	Methyl bromide (Bromomethane)	Methyl bromide (Bromomethane)	74-83-9	0.11	15
U030	4-Bromophenyl phenyl ether	4-Bromophenyl phenyl ether	101-55-3	0.055	15
U031	n-Butyl alcohol	n-Butyl alcohol	71-36-3	5.6	2.6
U032	Calcium chromate	Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
U033	Carbon oxyfluoride	Carbon oxyfluoride	353-50-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U034	Trichloroacetaldehyde (Chloral)	Trichloroacetaldehyde (Chloral)	75-87-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U035	Chlorambucil	Chlorambucil	305-03-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U036	Chlordane	Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
U037	Chlorobenzene	Chlorobenzene	108-90-7	0.057	6.0

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
U038	Chlorobenzilate	Chlorobenzilate	510-15-6	0.10	CMBST
U039	p-Chloro-m-cresol	p-Chloro-m-cresol	59-50-7	0.018	14
U041	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	106-89-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U042	2-Chloroethyl vinyl ether	2-Chloroethyl vinyl ether	110-75-8	0.062	CMBST
U043	Vinyl chloride	Vinyl chloride	75-01-4	0.27	6.0
U044	Chloroform	Chloroform	67-66-3	0.046	6.0
U045	Chloromethane (Methyl chloride)	Chloromethane (Methyl chloride)	74-87-3	0.19	30
U046	Chloromethyl methyl ether	Chloromethyl methyl ether	107-30-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U047	2-Chloronaphthalene	2-Chloronaphthalene	91-58-7	0.055	5.6
U048	2-Chlorophenol	2-Chlorophenol	95-57-8	0.044	5.7
U049	4-Chloro-o-toluidine hydrochloride	4-Chloro-o-toluidine hydrochloride	3165-93-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U050	Chrysene	Chrysene	218-01-9	0.059	3.4
U051	Creosote	Naphthalene	91-20-3	0.059	5.6
		Pentachlorophenol	87-86-5	0.089	7.4
		Phenanthrene	85-01-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2
		Toluene	108-88-3	0.080	10
				1330-20-7	0.32

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)			
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
U052	Cresols (Cresylic acid)	o-Cresol	95-48-7	0.11	5.6
		m-Cresol (difficult to distinguish from p-cresol)	108-39-4	0.77	5.6
		p-Cresol (difficult to distinguish from m-cresol)	106-44-5	0.77	5.6
		Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)	1319-77-3	0.88	11.2
U053	Crotonaldehyde	Crotonaldehyde	4170-30-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U055	Cumene	Cumene	98-82-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U056	Cyclohexane	Cyclohexane	110-82-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U057	Cyclohexanone	Cyclohexanone	108-94-1	0.36	CMBST
		Cyclohexanone; alternate ⁶ standard for non-wastewaters only	108-94-1	NA	0.75 mg/l TCLP
U058	Cyclophosphamide	Cyclophosphamide	50-18-0	CARBAN; or CMBST	CMBST

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
U059	Daunomycin	Daunomycin	20830-81-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U060	DDD	o,p'-DDD	53-19-0	0.023	0.087
		p,p'-DDD	72-54-8	0.023	0.087
U061	DDT	o-p'-DDT	789-02-6	0.0039	0.087
		p,p'-DDT	50-29-3	0.0039	0.087
		o,p'-DDD	53-19-0	0.023	0.087
		p,p'-DDD	72-54-8	0.023	0.087
		o,p'-DDE	3424-82-6	0.031	0.087
		p,p'-DDE	72-55-9	0.031	0.087
U062	Diallate	Diallate	2303-16-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U063	Dibenz(a,h)anthracene	Dibenz(a,h)anthracene	53-70-3	0.055	8.2
U064	Dibenz(a,i)pyrene	Dibenz(a,i)pyrene	189-55-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U066	1,2-Dibromo-3-chloropropane	1,2-Dibromo-3-chloropropane	96-12-8	0.11	15
U067	Ethylene dibromide (1,2-Dibromoethane)	Ethylene dibromide (1,2-Dibromoethane)	106-93-4	0.028	15
U068	Dibromomethane	Dibromomethane	74-95-3	0.11	15
U069	Di-n-butyl phthalate	Di-n-butyl phthalate	84-74-2	0.057	28
U070	o-Dichlorobenzene	o-Dichlorobenzene	95-50-1	0.088	6.0

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
U071	m-Dichlorobenzene	m-Dichlorobenzene	541-73-1	0.036	6.0
U072	p-Dichlorobenzene	p-Dichlorobenzene	106-46-7	0.090	6.0
U073	3,3'-Dichlorobenzidine	3,3'-Dichlorobenzidine	91-94-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U074	1,4-Dichloro-2-butene	cis-1,4-Dichloro-2-butene	1476-11-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
		trans-1,4-Dichloro-2-butene	764-41-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U075	Dichlorodifluoromethane	Dichlorodifluoromethane	75-71-8	0.23	7.2
U076	1,1-Dichloroethane	1,1-Dichloroethane	75-34-3	0.059	6.0
U077	1,2-Dichloroethane	1,2-Dichloroethane	107-06-2	0.21	6.0
U078	1,1-Dichloroethylene	1,1-Dichloroethylene	75-35-4	0.025	6.0
U079	1,2-Dichloroethylene	trans-1,2-Dichloroethylene	156-60-5	0.054	30
U080	Methylene chloride	Methylene chloride	75-09-2	0.089	30
U081	2,4-Dichlorophenol	2,4-Dichlorophenol	120-83-2	0.044	14
U082	2,6-Dichlorophenol	2,6-Dichlorophenol	87-65-0	0.044	14
U083	1,2-Dichloropropane	1,2-Dichloropropane	78-87-5	0.85	18
U084	1,3-Dichloropropylene	cis-1,3-Dichloropropylene	10061-01-5	0.036	18
		trans-1,3-Dichloropropylene	10061-02-6	0.036	18
U085	1,2:3,4-Diepoxybutane	1,2:3,4-Diepoxybutane	1464-53-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U086	N,N'-Diethylhydrazine	N,N'-Diethylhydrazine	1615-80-1	CHOXD; CHRED; CARBN;	CHOXD; CHRED; or

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
				BIODG; or CMBST	CMBST
U087	O,O-Diethyl S-methyldithiophosphate	O,O-Diethyl S-methyldithiophosphate	3288-58-2	CARBN; or CMBST	CMBST
U088	Diethyl phthalate	Diethyl phthalate	84-66-2	0.20	28
U089	Diethyl stilbestrol	Diethyl stilbestrol	56-53-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U090	Dihydrosafrole	Dihydrosafrole	94-58-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U091	3,3'-Dimethoxybenzidine	3,3'-Dimethoxybenzidine	119-90-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U092	Dimethylamine	Dimethylamine	124-40-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U093	p-Dimethylaminoazobenzene	p-Dimethylaminoazobenzene	60-11-7	0.13	CMBST
U094	7,12-Dimethylbenz(a)anthracene	7,12-Dimethylbenz(a)anthracene	57-97-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U095	3,3'-Dimethylbenzidine	3,3'-Dimethylbenzidine	119-93-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U096	alpha, alpha-Dimethyl benzyl hydroperoxide	alpha, alpha-Dimethyl benzyl hydroperoxide	80-15-9	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U097	Dimethylcarbamoyl chloride	Dimethylcarbamoyl chloride	79-44-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U098	1,1-Dimethylhydrazine	1,1-Dimethylhydrazine	57-14-7	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U099	1,2-Dimethylhydrazine	1,2-Dimethylhydrazine	540-73-8	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
U101	2,4-Dimethylphenol	2,4-Dimethylphenol	105-67-9	0.036	14
U102	Dimethyl phthalate	Dimethyl phthalate	131-11-3	0.047	28
U103	Dimethyl sulfate	Dimethyl sulfate	77-78-1	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U105	2,4-Dinitrotoluene	2,4-Dinitrotoluene	121-14-2	0.32	140
U106	2,6-Dinitrotoluene	2,6-Dinitrotoluene	606-20-2	0.55	28
U107	Di-n-octyl phthalate	Di-n-octyl phthalate	117-84-0	0.017	28
U108	1,4-Dioxane	1,4-Dioxane	123-91-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
		1,4-Dioxane; alternate ⁶	123-91-1	12.0	170
U109	1,2-Diphenylhydrazine	1,2-Diphenylhydrazine	122-66-7	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
		1,2-Diphenylhydrazine; alternate ⁶ standard for wastewaters only	122-66-7	0.087	NA
U110	Dipropylamine	Dipropylamine	142-84-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U111	Di-n-propylnitrosamine	Di-n-propylnitrosamine	621-64-7	0.40	14
U112	Ethyl acetate	Ethyl acetate	141-78-6	0.34	33
U113	Ethyl acrylate	Ethyl acrylate	140-88-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U114	Ethylenebisdithiocarbamic acid salts and esters	Ethylenebisdithiocarbamic acid	111-54-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U115		Ethylene oxide	75-21-8	(WETOX or CHOXD) fb	CHOXD; or CMBST

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
	Ethylene oxide			CARBN; or CMBST	
		Ethylene oxide; alternate ⁶ standard for wastewaters only	75-21-8	0.12	NA
U116	Ethylene thiourea	Ethylene thiourea	96-45-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U117	Ethyl ether	Ethyl ether	60-29-7	0.12	160
U118	Ethyl methacrylate	Ethyl methacrylate	97-63-2	0.14	160
U119	Ethyl methane sulfonate	Ethyl methane sulfonate	62-50-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U120	Fluoranthene	Fluoranthene	206-44-0	0.068	3.4
U121	Trichloromonofluoromethane	Trichloromonofluoromethane	75-69-4	0.020	30
U122	Formaldehyde	Formaldehyde	50-00-0	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U123	Formic acid	Formic acid	64-18-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U124	Furan	Furan	110-00-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U125	Furfural	Furfural	98-01-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U126	Glycidylaldehyde	Glycidylaldehyde	765-34-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U127	Hexachlorobenzene	Hexachlorobenzene	118-74-1	0.055	10
U128	Hexachlorobutadiene	Hexachlorobutadiene	87-68-3	0.055	5.6

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
U129	Lindane	alpha-BHC	319-84-6	0.00014	0.066
		beta-BHC	319-85-7	0.00014	0.066
		delta-BHC	319-86-8	0.023	0.066
		gamma-BHC (Lindane)	58-89-9	0.0017	0.066
U130	Hexachlorocyclopentadiene	Hexachlorocyclopentadiene	77-47-4	0.057	2.4
U131	Hexachloroethane	Hexachloroethane	67-72-1	0.055	30
U132	Hexachlorophene	Hexachlorophene	70-30-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U133	Hydrazine	Hydrazine	302-01-2	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U134	Hydrogen fluoride	Fluoride (measured in wastewaters only)	7664-39-3	35	ADGAS fb NEUTR; or NEUTR
U135	Hydrogen Sulfide	Hydrogen Sulfide	7783-06-4	CHOXD; CHRED, or CMBST	CHOXD; CHRED; or CMBST.
U136	Cacodylic acid	Arsenic	7440-38-2	1.4	5.0 mg/l TCLP
U137	Indeno(1,2,3-cd)pyrene	Indeno(1,2,3-cd)pyrene	193-39-5	0.0055	3.4
U138	Iodomethane	Iodomethane	74-88-4	0.19	65
U140	Isobutyl alcohol	Isobutyl alcohol	78-83-1	5.6	170
U141	Isosafrole	Isosafrole	120-58-1	0.081	2.6
U142	Kepone	Kepone	143-50-8	0.0011	0.13
U143	Lasiocarpine	Lasiocarpine	303-34-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
U144	Lead acetate	Lead	7439-92-1	0.69	0.75 mg/l TCLP
U145	Lead phosphate	Lead	7439-92-1	0.69	0.75 mg/l TCLP
U146	Lead subacetate	Lead	7439-92-1	0.69	0.75 mg/l TCLP
U147	Maleic anhydride	Maleic anhydride	108-31-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U148	Maleic hydrazide	Maleic hydrazide	123-33-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U149	Malononitrile	Malononitrile	109-77-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U150	Melphalan	Melphalan	148-82-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U151	U151 (mercury) non-wastewaters that contain greater than or equal to 260 mg/kg total mercury.	Mercury	7439-97-6	NA	RMERC
	U151 (mercury) non-wastewaters that contain less than 260 mg/kg total mercury and that are residues from RMERC only.	Mercury	7439-97-6	NA	0.20 mg/l TCLP
	U151 (mercury) non-wastewaters that contain less than 260 mg/kg total mercury and that are not residues from RMERC.	Mercury	7439-97-6	NA	0.025 mg/l TCLP
	All U151 (mercury) wastewaters.	Mercury	7439-97-6	0.15	NA
	Elemental Mercury Contaminated with Radioactive Materials	Mercury	7439-97-6	NA	AMLGM
U152	Methacrylonitrile	Methacrylonitrile	126-98-7	0.24	84
U153	Methanethiol	Methanethiol	74-93-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U154	Methanol	Methanol	67-56-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		Methanol; alternate ⁶ set of standards for both wastewaters and non-wastewaters	67-56-1	5.6	0.75 mg/l TCLP
U155	Methapyrilene	Methapyrilene	91-80-5	0.081	1.5
U156	Methyl chlorocarbonate	Methyl chlorocarbonate	79-22-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U157	3-Methylcholanthrene	3-Methylcholanthrene	56-49-5	0.0055	15
U158	4,4'-Methylene bis(2-chloroaniline)	4,4'-Methylene bis(2-chloroaniline)	101-14-4	0.50	30
U159	Methyl ethyl ketone	Methyl ethyl ketone	78-93-3	0.28	36
U160	Methyl ethyl ketone peroxide	Methyl ethyl ketone peroxide	1338-23-4	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U161	Methyl isobutyl ketone	Methyl isobutyl ketone	108-10-1	0.14	33
U162	Methyl methacrylate	Methyl methacrylate	80-62-6	0.14	160
U163	N-Methyl N'-nitro N-nitrosoguanidine	N-Methyl N'-nitro N-nitrosoguanidine	70-25-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U164	Methylthiouracil	Methylthiouracil	56-04-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U165	Naphthalene	Naphthalene	91-20-3	0.059	5.6
U166	1,4-Naphthoquinone	1,4-Naphthoquinone	130-15-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U167	1-Naphthylamine	1-Naphthylamine	134-32-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U168	2-Naphthylamine	2-Naphthylamine	91-59-8	0.52	CMBST

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
U169	Nitrobenzene	Nitrobenzene	98-95-3	0.068	14
U170	p-Nitrophenol	p-Nitrophenol	100-02-7	0.12	29
U171	2-Nitropropane	2-Nitropropane	79-46-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U172	N-Nitrosodi-n-butylamine	N-Nitrosodi-n-butylamine	924-16-3	0.40	17
U173	N-Nitrosodiethanolamine	N-Nitrosodiethanolamine	1116-54-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U174	N-Nitrosodiethylamine	N-Nitrosodiethylamine	55-18-5	0.40	28
U176	N-Nitroso-N-ethylurea	N-Nitroso-N-ethylurea	759-73-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U177	N-Nitroso-N-methylurea	N-Nitroso-N-methylurea	684-93-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U178	N-Nitroso-N-methylurethane	N-Nitroso-N-methylurethane	615-53-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U179	N-Nitrosopiperidine	N-Nitrosopiperidine	100-75-4	0.013	35
U180	N-Nitrosopyrrolidine	N-Nitrosopyrrolidine	930-55-2	0.013	35
U181	5-Nitro-o-toluidine	5-Nitro-o-toluidine	99-55-8	0.32	28
U182	Paraldehyde	Paraldehyde	123-63-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U183	Pentachlorobenzene	Pentachlorobenzene	608-93-5	0.055	10
U184	Pentachloroethane	Pentachloroethane	76-01-7	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
		Pentachloroethane; alternate ⁶	76-01-7	0.055	6.0

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
		standards for both wastewaters and non-wastewaters			
U185	Pentachloronitrobenzene	Pentachloronitrobenzene	82-68-8	0.055	4.8
U186	1,3-Pentadiene	1,3-Pentadiene	504-60-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U187	Phenacetin	Phenacetin	62-44-2	0.081	16
U188	Phenol	Phenol	108-95-2	0.039	6.2
U189	Phosphorus sulfide	Phosphorus sulfide	1314-80-3	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
U190	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	0.055	28
		Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	0.055	28
U191	2-Picoline	2-Picoline	109-06-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U192	Pronamide	Pronamide	23950-58-5	0.093	1.5
U193	1,3-Propane sultone	1,3-Propane sultone	1120-71-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U194	n-Propylamine	n-Propylamine	107-10-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U196	Pyridine	Pyridine	110-86-1	0.014	16
U197	p-Benzoquinone	p-Benzoquinone	106-51-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U200	Reserpine	Reserpine	50-55-5	(WETOX or CHOXD) fb	CMBST

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
				CARBN; or CMBST	
U201	Resorcinol	Resorcinol	108-46-3	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U202	Saccharin and salts	Saccharin	81-07-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U203	Safrole	Safrole	94-59-7	0.081	22
U204	Selenium dioxide	Selenium	7782-49-2	0.82	5.7 mg/l TCLP
U205	Selenium sulfide	Selenium	7782-49-2	0.82	5.7 mg/l TCLP
U206	Streptozotocin	Streptozotocin	18883-66-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U207	1,2,4,5-Tetrachlorobenzene	1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
U208	1,1,1,2-Tetrachloroethane	1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
U209	1,1,2,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0
U210	Tetrachloroethylene	Tetrachloroethylene	127-18-4	0.056	6.0
U211	Carbon tetrachloride	Carbon tetrachloride	56-23-5	0.057	6.0
U213	Tetrahydrofuran	Tetrahydrofuran	109-99-9	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U214	Thallium (I) acetate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U215	Thallium (I) carbonate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U216	Thallium (I) chloride	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
U217	Thallium (I) nitrate	Thallium (measured in wastewaters only)	7440-28-0	1.4	RTHRM; or STABL
U218	Thioacetamide	Thioacetamide	62-55-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U219	Thiourea	Thiourea	62-56-6	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U220	Toluene	Toluene	108-88-3	0.080	10
U221	Toluenediamine	Toluenediamine	25376-45-8	CARBN; or CMBST	CMBST
U222	o-Toluidine hydrochloride	o-Toluidine hydrochloride	636-21-5	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U223	Toluene diisocyanate	Toluene diisocyanate	26471-62-5	CARBN; or CMBST	CMBST
U225	Bromoform (Tribromomethane)	Bromoform (Tribromomethane)	75-25-2	0.63	15
U226	1,1,1-Trichloroethane	1,1,1-Trichloroethane	71-55-6	0.054	6.0
U227	1,1,2-Trichloroethane	1,1,2-Trichloroethane	79-00-5	0.054	6.0
U228	Trichloroethylene	Trichloroethylene	79-01-6	0.054	6.0
U234	1,3,5-Trinitrobenzene	1,3,5-Trinitrobenzene	99-35-4	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U235	tris-(2,3-Dibromopropyl)-phosphate	tris-(2,3-Dibromopropyl)-phosphate	126-72-7	0.11	0.10
U236	Trypan Blue	Trypan Blue	72-57-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U237	Uracyl mustard	Uracyl mustard	66-75-1	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U238	Urethane (Ethyl carbamate)	Urethane (Ethyl carbamate)	51-79-6	(WETOX or CHOXD) fb	CMBST

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		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
				CARBN; or CMBST	
U239	Xylenes	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
U240	2,4-D (2,4-Dichlorophenoxyacetic acid)	2,4-D (2,4-Dichlorophenoxyacetic acid)	94-75-7	0.72	10
	2,4-D (2,4-Dichlorophenoxyacetic acid) salts and esters		NA	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U243	Hexachloropropylene	Hexachloropropylene	1888-71-7	0.035	30
U244	Thiram	Thiram	137-26-8	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U246	Cyanogen bromide	Cyanogen bromide	506-68-3	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
U247	Methoxychlor	Methoxychlor	72-43-5	0.25	0.18
U248	Warfarin, & salts, when present at concentrations of 0.3% or less	Warfarin	81-81-2	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U249	Zinc phosphide, Zn ₃ P ₂ , when present at concentrations of 10% or less	Zinc Phosphide	1314-84-7	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
U271	Benomyl	Benomyl	17804-35-2	0.056	1.4
U278	Bendiocarb	Bendiocarb	22781-23-3	0.056	1.4
U279	Carbaryl	Carbaryl	63-25-2	0.006	0.14
U280	Barban	Barban	101-27-9	0.056	1.4
U328	o-Toluidine	o-Toluidine	95-53-4	CMBST; or CHOXD fb (BIODG or CARBN); or	CMBST

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§268.40 TREATMENT STANDARDS FOR HAZARDOUS WASTES NOTE: NA means not applicable

WASTE CODE	WASTE DESCRIPTION AND TREATMENT/REGULATORY SUBCATEGORY ¹	REGULATED HAZARDOUS CONSTITUENT		WASTEWATERS	NON-WASTEWATERS
		Common Name	CAS ² Number	Concentration ³ in mg/L; or Technology Code ⁴	Concentration ⁵ in mg/kg unless noted as "mg/L TCLP"; or Technology Code ⁴
				BIOGD fb CARBN.	
U353	p-Toluidine	p-Toluidine	106-49-0	CMBST; or CHOXD fb (BIOGD or CARBN); or BIOGD fb CARBN	CMBST
U359	2-Ethoxyethanol	2-Ethoxyethanol	110-80-5	CMBST; or CHOXD fb (BIOGD or CARBN); or BIOGD fb CARBN	CMBST
U364	Bendiocarb phenol ¹⁰	Bendiocarb phenol	22961-82-6	0.056	1.4
U367	Carbofuran phenol	Carbofuran phenol	1563-38-8	0.056	1.4
U372	Carbendazim	Carbendazim	10605-21-7	0.056	1.4
U373	Propham	Propham	122-42-9	0.056	1.4
U387	Prosulfocarb	Prosulfocarb	52888-80-9	0.042	1.4
U389	Triallate	Triallate	2303-17-5	0.042	1.4
U394	A2213 ¹⁰	A2213	30558-43-1	0.042	1.4
U395	Diethylene glycol, dicarbamate ¹⁰	Diethylene glycol, dicarbamate	5952-26-1	0.056	1.4
U404	Triethylamine	Triethylamine	101-44-8	0.081	1.5
U409	Thiophanate-methyl	Thiophanate-methyl	23564-05-8	0.056	1.4
U410	Thiodicarb	Thiodicarb	59669-26-0	0.019	1.4
U411	Propoxur	Propoxur	114-26-1	0.056	1.4

FOOTNOTES TO TREATMENT STANDARD TABLE 268.40

1	The waste descriptions provided in this table do not replace waste descriptions in Section 261 of this regulation. Descriptions of Treatment/Regulatory
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	Subcategories are provided, as needed, to distinguish between applicability of different standards.
2	CAS means <i>Chemical Abstract Services</i> . When the waste code and/or regulated constituents are described as a combination of a chemical with its salts and/or esters, the CAS number is given for the parent compound only.
3	Concentration standards for wastewaters are expressed in mg/l and are based on analysis of composite samples.
4	All treatment standards expressed as a Technology Code or combination of Technology Codes are explained in detail in § 268.42 Table 1 - Technology Codes and Descriptions of Technology-Based Standards.
5	Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of Section 264, Subsection O or Section 265, Subsection O of this regulation, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in § 268.40(d) of this regulation. All concentration standards for non-wastewaters are based on analysis of grab samples.
6	Where an alternate treatment standard or set of alternate standards has been indicated, a facility may comply with this alternate standard, but only for the Treatment/Regulatory Subcategory or physical form (i.e., wastewater and/or nonwastewater) specified for that alternate standard.
7	Both Cyanides (Total) and Cyanides (Amenable) for non-wastewaters are to be analyzed using Method 9010C or 9012B, found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this regulation, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.
8	These wastes, when rendered nonhazardous and then subsequently managed in CWA, or CWA-equivalent systems, are not subject to treatment standards. (See §§268.1(c)(3)and (4)).
9	These wastes, when rendered nonhazardous and then subsequently injected in a Class I SDWA well, are not subject to treatment standards. (See 148.1(d)).
10	The treatment standard for this waste may be satisfied by either meeting the constituent concentrations in this table or by treating the waste by the specified technologies: combustion, as defined by the technology code CMBST at § 268.42 Table 1 of this Section, for non-wastewaters; and, biodegradation as defined by the technology code BIODG, carbon adsorption as defined by the technology code CARBN, chemical oxidation as defined by the technology code CHOXD, or combustion as defined as technology code CMBST at § 268.42 Table 1 of this Section, for wastewaters.
11	For these wastes, the definition of CMBST is limited to: (1) combustion units operating under Section 266, (2) combustion units permitted under Section 264, Subsection O, or (3) combustion units operating under Section 265, Subsection O, which have obtained a determination of equivalent treatment under § 268.42 (b).
12	Disposal of K175 wastes that have complied with all applicable § 268.40 treatment standards must also be macroencapsulated in accordance with § 268.45 Table 1 unless the waste is placed in: (1) A Subtitle C monofill containing only K175 wastes that meet all applicable § 268.40 treatment standards; or (2) A dedicated Subtitle C landfill cell in which all other wastes being co-disposed are at pH≤6.0.

§ 268.41 Treatment standards expressed as concentrations in waste extract

For the requirements previously found in this section and for treatment standards in Table CCWE-Constituent Concentrations in Waste Extracts, refer to § 268.40.

§ 268.42 Treatment standards expressed as specified technologies

Note: For the requirements previously found in this section in Table 2-Technology-Based Standards By RCRA Waste Code, and Table 3-Technology-Based Standards for Specific Radioactive Hazardous Mixed Waste, refer to § 268.40.

(a) The following wastes in the table in § 268.40 “Treatment Standards for Hazardous Wastes,” for which standards are expressed as a treatment method rather than a concentration level, must be treated using the technology or technologies specified in the table entitled “Technology Codes and Description of Technology-Based Standards” in this section.

(1) Liquid hazardous wastes containing polychlorinated biphenyls (PCBs) at concentrations greater than or equal to 50 ppm but less than 500 ppm must be incinerated in accordance with the technical requirements of 40 CFR 761.70 or burned in high efficiency boilers in accordance with the technical requirements of 40 CFR 761.60. Liquid hazardous wastes containing polychlorinated biphenyls (PCBs) at concentrations greater than or equal to 500 ppm must be incinerated in accordance with the technical requirements of 40 CFR 761.70. Thermal treatment under this section must also be in compliance with applicable regulations in sections 264, 265, and 266.

(2) Nonliquid hazardous wastes containing halogenated organic compounds (HOCs) in total concentration greater than or equal to 1,000 mg/kg and liquid HOC-containing wastes that are prohibited under § 268.32(e)(1) of this section must be incinerated in accordance with the requirements of section 264, Subsection O, or section 265, Subsection O. These treatment standards do not apply where the waste is subject to a section 268, Subsection D, treatment standard for specific HOC (such as a hazardous waste chlorinated solvent for which a treatment standard is established under § 26841(a)).

(3) A mixture consisting of wastewater, the discharge of which is subject to regulation under either section 402 or section 307(b) of the Clean Water Act, and de minimis losses of materials from manufacturing operations in which these materials are used as raw materials or are produced as products in the manufacturing process, and that meet the criteria of the D001 ignitable liquids containing greater than 10% total organic constituents (TOC)

subcategory, is subject to the DEACT treatment standard described in Table 1 of this section. For purposes of this paragraph, de minimis losses include those from normal material handling operations (eg, spills from the unloading or transfer of materials from bins or other containers, leaks from pipes, valves or other devices used to transfer materials); minor leaks from process equipment, storage tanks, or containers; leaks from well-maintained pump packings and seals; sample purgings; and relief device discharges.

Table 1
Technology Codes and Description of Technology-Based Standards

Technology Code	Description of technology-based standards
ADGAS:	Venting of compressed gases into an absorbing or reacting media (ie, solid or liquid)-venting can be accomplished through physical release utilizing valves/piping; physical penetration of the container; and/or penetration through detonation
AMLGM:	Amalgamation of liquid, elemental mercury contaminated with radioactive materials utilizing inorganic reagents such as copper, zinc, nickel, gold, and sulfur that result in a nonliquid, semi-solid amalgam and thereby reducing potential emissions of elemental mercury vapors to the air
BIODG:	Biodegradation of organics or non-metallic inorganics (ie, degradable inorganics that contain the elements of phosphorus, nitrogen, and sulfur) in units operated under either aerobic or anaerobic conditions such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (eg, Total Organic Carbon can often be used as an indicator parameter for the biodegradation of many organic constituents that cannot be directly analyzed in wastewater residues)
CARBN:	Carbon adsorption (granulated or powdered) of non-metallic inorganics, organo-metallics, and/or organic constituents, operated such that a surrogate compound or indicator parameter has not undergone breakthrough (eg, Total Organic Carbon can often be used as an indicator parameter for the adsorption of many organic constituents that cannot be directly analyzed in wastewater residues) Breakthrough occurs when the carbon has become saturated with the constituent (or indicator parameter) and substantial change in adsorption rate associated with that constituent occurs
CHOXD:	Chemical or electrolytic oxidation utilizing the following oxidation reagents (or waste reagents) or combinations of reagents: (1) Hypochlorite (eg bleach); (2) chlorine; (3) chlorine dioxide; (4) ozone or UV (ultraviolet light) assisted ozone; (5) peroxides; (6) persulfates; (7) perchlorates; (8) permangantes; and/or (9) other oxidizing reagents of equivalent efficiency, performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (eg, Total Organic Carbon can often be used as an indicator parameter for the oxidation of many organic constituents that cannot be directly analyzed in wastewater residues) Chemical oxidation specifically includes what is commonly referred to as alkaline chlorination
CHRED:	Chemical reduction utilizing the following reducing reagents (or waste reagents) or combinations of reagents: (1) Sulfur dioxide; (2) sodium, potassium, or alkali salts or sulfites, bisulfites, metabisulfites, and polyethylene glycols (eg, NaPEG and KPEG); (3) sodium hydrosulfide; (4) ferrous salts; and/or (5) other reducing reagents of equivalent efficiency, performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (eg, Total Organic Halogens can often be used as an indicator parameter for the reduction of many halogenated organic constituents that cannot be directly analyzed in wastewater residues) Chemical reduction is commonly used for the reduction of hexavalent chromium to the trivalent state
CMBST:	High temperature organic destruction technologies, such as combustion in incinerators, boilers, or industrial furnaces operated in accordance with the applicable requirements of 40 CFR part 264, subpart O,

or Section 265, subsection O, or Section 266, subsection H, and in other units operated in accordance with applicable technical operating requirements; and certain non-combustive technologies, such as the Catalytic Extraction Process

DEACT: Deactivation to remove the hazardous characteristics of a waste due to its ignitability, corrosivity, and/or reactivity

FSUBS: Fuel substitution in units operated in accordance with applicable technical operating requirements

HLVIT: Vitrification of high level mixed radioactive wastes in units in compliance with all applicable radioactive protection requirements under control of the Nuclear Regulatory Commission

IMERC: Incineration of wastes containing organics and mercury in units operated in accordance with the technical operating requirements of Section 264 subsection 0 and Section 265 subsection 0 All wastewater and nonwastewater residues derived from this process must then comply with the corresponding treatment standards per waste code with consideration of any applicable subcategories (eg, High or Low Mercury Subcategories)

INCIN: Incineration in units operated in accordance with the technical operating requirements of Section 264 Subsection 0 and Section 265 Subsection 0

LLEXT: Liquid-liquid extraction (often referred to as solvent extraction) of organics from liquid wastes into an immiscible solvent for which the hazardous constituents have a greater solvent affinity, resulting in an extract high in organics that must undergo either incineration, reuse as a fuel, or other recovery/reuse and a raffinate (extracted liquid waste) proportionately low in organics that must undergo further treatment as specified in the standard

MACRO: Macroencapsulation with surface coating materials such as polymeric organics (eg resins and plastics) or with a jacket of inert inorganic materials to substantially reduce surface exposure to potential leaching media Macroencapsulation specifically does not include any material that would be classified as a tank or container according to §260.10

NEUTR: Neutralization with the following reagents (or waste reagents) or combinations of reagents: (1) Acids; (2) bases; or (3) water (including wastewaters) resulting in a pH greater than 2 but less than 125 as measured in the aqueous residuals

NLDBR: No land disposal based on recycling

PRECP: Chemical precipitation of metals and other inorganics as insoluble precipitates of oxides, hydroxides, carbonates, sulfides, sulfates, chlorides, fluorides, or phosphates The following reagents (or waste reagents) are typically used alone or in combination: (1) Lime (ie, containing oxides and/or hydroxides of calcium and/or magnesium; (2) caustic (ie, sodium and/or potassium hydroxides; (3) soda ash (ie, sodium carbonate); (4) sodium sulfide; (5) ferric sulfate or ferric chloride; (6) alum; or (7) sodium sulfate Additional flocculating, coagulation or similar reagents/processes that enhance sludge dewatering characteristics are not precluded from use

POLYM: Formation of complex high-molecular weight solids through polymerization of monomers in high-TOC D001 non-wastewaters which are chemical components in the manufacture of plastics

RBERY: Thermal recovery of Beryllium

RCGAS: Recovery/reuse of compressed gases including techniques such as reprocessing of the gases for reuse/resale; filtering/adsorption of impurities; remixing for direct reuse or resale; and use of the gas as a fuel source

RCORR: Recovery of acids or bases utilizing one or more of the following recovery technologies: (1) Distillation (ie, thermal concentration); (2) ion exchange; (3) resin or solid adsorption; (4) reverse osmosis; and/or (5) incineration for the recovery of acid-Note: this does not preclude the use of other physical phase separation or concentration techniques such as decantation, filtration (including ultrafiltration), and centrifugation, when used in conjunction with the above listed recovery technologies

RLEAD: Thermal recovery of lead in secondary lead smelters

RMERC: Retorting or roasting in a thermal processing unit capable of volatilizing mercury and subsequently condensing the volatilized mercury for recovery The retorting or roasting unit (or facility) must be subject to one or more of the following: (a) a National Emissions Standard for Hazardous Air Pollutants (NESHAP) for mercury; (b) a Best Available Control Technology (BACT) or a Lowest Achievable Emission Rate (LAER) standard for mercury imposed pursuant to a Prevention of Significant Deterioration (PSD) permit; or (c) a state permit that establishes emission limitations (within meaning of section 302 of the Clean Air Act) for mercury

All wastewater and nonwastewater residues derived from this process must then comply with the corresponding treatment standards per waste code with consideration of any applicable subcategories (eg, High or Low Mercury Subcategories)

RMETL: Recovery of metals or inorganics utilizing one or more of the following direct physical/removal technologies: (1) Ion exchange; (2) resin or solid (ie, zeolites) adsorption; (3) reverse osmosis; (4) chelation/solvent extraction; (5) freeze crystallization; (6) ultrafiltration and/or (7) simple precipitation (ie, crystallization) - Note: This does not preclude the use of other physical phase separation or concentration techniques such as decantation, filtration (including ultrafiltration), and centrifugation, when used in conjunction with the above listed recovery technologies

RORGS: Recovery of organics utilizing one or more of the following technologies: (1) Distillation; (2) thin film evaporation; (3) steam stripping; (4) carbon adsorption; (5) critical fluid extraction; (6) liquid-liquid extraction; (7) precipitation/crystallization (including freeze crystallization); or (8) chemical phase separation techniques (ie, addition of acids, bases, demulsifiers, or similar chemicals); - Note: this does not preclude the use of other physical phase separation techniques such as a decantation, filtration (including ultrafiltration), and centrifugation, when used in conjunction with the above listed recovery technologies

RTHRM: Thermal recovery of metals or inorganics from nonwastewaters in units identified as industrial furnaces according to 26010 (1), (6), (7), (11), and (12) under the definition of "industrial furnaces"

RZINC: Resmelting in high temperature metal recovery units for the purpose of recovery of zinc

STABL: Stabilization with the following reagents (or waste reagents) or combinations of reagents: (1) Portland cement; or (2) lime/pozzolans (eg, fly ash and cement kiln dust) - this does not preclude the addition of reagents (eg, iron salts, silicates, and clays) designed to enhance the set/cure time and/or compressive strength, or to overall reduce the leachability of the metal or inorganic

SSTRP: Steam stripping of organics from liquid wastes utilizing direct application of steam to the wastes operated such that liquid and vapor flow rates, as well as temperature and pressure ranges, have been optimized, monitored, and maintained These operating parameters are dependent upon the design parameters of the unit, such as the number of separation stages and the internal column design, thus resulting in a condensed extract high in organics that must undergo either incineration, reuse as a fuel, or other recovery/reuse and an extracted wastewater that must undergo further treatment as specified in the standard

WETOX: Wet air oxidation performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (eg, Total Organic Carbon can often be used as an indicator parameter for the oxidation of many organic constituents that cannot be directly analyzed in wastewater residues)

WTRRX: Controlled reaction with water for highly reactive inorganic or organic chemicals with precautionary controls for protection of workers from potential violent reactions as well as precautionary controls for potential emissions of toxic/ignitable levels of gases released during the reaction

Note 1: When a combination of these technologies (ie, a treatment train) is specified as a single treatment standard, the order of application is specified in § 26842, Table 2 by indicating the five letter technology code that must be applied first, then the designation "fb" (an abbreviation for "followed by"), then the five letter technology code for the technology that must be applied next, and so on

Note 2: When more than one technology (or treatment train) are specified as alternative treatment standards, the five letter technology codes (or the treatment trains) are separated by a semicolon (;) with the last technology preceded by the word "OR" This indicates that any one of these BDAT technologies or treatment trains can be used for compliance with the standard

(b) Any person may submit an application to the EPA Administrator demonstrating that an alternative treatment method can achieve a measure of performance equivalent to that achieved by methods specified in paragraphs (a), (c), and (d) of this section for wastes or specified in Table 1 of § 268.45 for hazardous debris. The applicant must submit information demonstrating that his treatment method is in

compliance with federal, state, and local requirements and is protective of human health and the environment. On the basis of such information and any other available information, the Administrator may approve the use of the alternative treatment method if he finds that the alternative treatment method provides a measure of performance equivalent to that achieved by methods specified in paragraphs (a), (c), and (d) of this section for wastes or in Table 1 of § 268.45 for hazardous debris. Any approval must be stated in writing and may contain such provisions and conditions as the Administrator deems appropriate. The person to whom such approval is issued must comply with all limitations contained in such a determination.

(c) As an alternative to the otherwise applicable Subsection D treatment standards, lab packs are eligible for land disposal provided the following requirements are met:

- (1) The lab packs comply with the applicable provisions of § 264.316 and § 265.316;
- (2) The lab pack does not contain any of the wastes listed in Appendix IV to Section 268;
- (3) The lab packs are incinerated in accordance with the requirements of Section 264, subsection O or Section 265, subsection O; and
- (4) Any incinerator residues from lab packs containing D004, D005, D006, D007, D008, D010, and D011 are treated in compliance with the applicable treatment standards specified for such wastes in Subsection D of this section.

(d) Radioactive hazardous mixed wastes are subject to the treatment standards in § 268.40. Where treatment standards are specified for radioactive mixed wastes in the Table of Treatment Standards, those treatment standards will govern. Where there is no specific treatment standard for radioactive mixed waste, the treatment standard for the hazardous waste (as designated by EPA waste code) applies. Hazardous debris containing radioactive waste is subject to the treatment standards specified in § 268.45.*

§ 268.43 Treatment standards expressed as waste concentrations

For the requirements previously found in this section and for treatment standards in Table CCW-Constituent Concentrations in Wastes, refer to § 268.40.

§ 268.44 Variance from a treatment standard

(a) Based on a petition filed by a generator or treater of hazardous waste, the Administrator may approve a variance from an applicable treatment standard if:

- (1) It is not physically possible to treat the waste to the level specified in the treatment standard, or by the method specified as the treatment standard. To show that this is the case, the petitioner must demonstrate that because the physical or chemical

properties of the waste differ significantly from waste analyzed in developing the treatment standard, the waste cannot be treated to the specified level or by the specified method; or

(2) It is inappropriate to require the waste to be treated to the level specified in the treatment standard or by the method specified as the treatment standard, even though such treatment is technically possible. To show that this is the case, the petitioner must either demonstrate that:

- (i) Treatment to the specified level or by the specified method is technically inappropriate (for example, resulting in combustion of large amounts of mildly contaminated environmental media); or
- (ii) For remediation waste only, treatment to the specified level or by the specified method is environmentally inappropriate because it would likely discourage aggressive remediation.

(b) Each petition must be submitted in accordance with the procedures in § 260.20.

(c) Each petition must include the following statement signed by the petitioner or an authorized representative:

"I certify under penalty of law that I have personally examined and am familiar with the information submitted in this petition and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment"

(d) After receiving a petition for variance from a treatment standard, the Administrator may request any additional information or samples which he may require to evaluate the petition. Additional copies of the complete petition may be requested as needed to send to affected states and Regional Offices.

(e) The Administrator will give public notice in the Federal Register of the intent to approve or deny a petition and provide an opportunity for public comment. The final decision on a variance from a treatment standard will be published in the Federal Register.

(f) A generator, treatment facility, or disposal facility that is managing a waste covered by a variance from the treatment standards must comply with the waste analysis requirements for restricted wastes found under § 268.7.

(g) During the petition review process, the applicant is required to comply with all restrictions on land disposal under this section once the effective date for the waste has been reached.

(h) Based on a petition filed by a generator or treater of hazardous waste, the EPA Administrator or his or her delegated representative may approve a site-specific variance from an applicable treatment standard if:

- (1) It is not physically possible to treat the waste to the level specified in the treatment standard, or by the method specified as the treatment standard. To show that this is the case, the petitioner must

demonstrate that because the physical or chemical properties of the waste differ significantly from waste analyzed in developing the treatment standard, the waste cannot be treated to the specified level or by the specified method; or

(2) It is inappropriate to require the waste to be treated to the level specified in the treatment standard or by the method specified as the treatment standard, even though such treatment is technically possible. To show that this is the case, the petitioner must either demonstrate that:

(i) Treatment to the specified level or by the specified method is technically inappropriate (for example, resulting in combustion of large amounts of mildly contaminated environmental media where the treatment standard is not based on combustion of such media); or

(ii) For remediation waste only, treatment to the specified level or by the specified method is environmentally inappropriate because it would likely discourage aggressive remediation.

(3) For contaminated soil only, treatment to the level or by the method specified in the soil treatment standards would result in concentrations of hazardous constituents that are below (ie, lower than) the concentrations necessary to minimize short- and long-term threats to human health and the environment. Treatment variances approved under this paragraph must:

(i) At a minimum, impose alternative land disposal restriction treatment using a reasonable maximum exposure scenario.

(A) For carcinogens, achieve constituent concentrations that result in the total excess risk to an individual exposed over a lifetime generally falling within a range from 10^{-4} to 10^{-6} ; and

(B) For constituents with non-carcinogenic effects, achieve constituent concentrations that an individual could be exposed to on a daily basis without appreciable risk of deleterious effect during a lifetime.

(ii) Not consider post-land-disposal controls.

(4) For contaminated soil only, treatment to the level or by the method specified in the soil treatment standards would result in concentrations of hazardous constituents that are below (ie, lower than) natural background concentrations at the site where the contaminated soil will be land disposed.

(5) Public notice and a reasonable opportunity for public comment must be provided before granting or denying a petition.

(i) Each application for a site-specific variance from a treatment standard must include the information in §

260.20(b)(1)-(4);

(j) After receiving an application for a site-specific variance from a treatment standard, the Assistant Administrator, or his delegated representative, may request any additional information or samples which may be required to evaluate the application.

(k) A generator, treatment facility, or disposal facility that is managing a waste covered by a site-specific variance from a treatment standard must comply with the waste analysis requirements for restricted wastes found under § 268.7.

(l) During the application review process, the applicant for a site-specific variance must comply with all restrictions on land disposal under this section once the effective date for the waste has been reached.

(m) For all variances, the petitioner must also demonstrate that compliance with any given treatment variance is sufficient to minimize threats to human health and the environment posed by land disposal of the waste. In evaluating this demonstration, EPA may take into account whether a treatment variance should be approved if the subject waste is to be used in a manner constituting disposal pursuant to §§ 266.20 through 266.23.

(n) [Reserved]

(o) The following facilities are excluded from the treatment standard under § 268.43(a), Table CCW, and are subject to the following constituent concentrations:

NONE LISTED

§ 268.45 Treatment standards for hazardous debris

(a) Treatment standards: Hazardous debris must be treated prior to land disposal as follows unless the Department or EPA determines under §261.3(f)(2) of this regulation that the debris is no longer contaminated with hazardous waste or the debris is treated to the waste-specific treatment standard provided in this subsection for the waste contaminating the debris:

(1) General. Hazardous debris must be treated for each “contaminant subject to treatment” defined by paragraph (b) of this section using the technology or technologies identified in Table 1 of this section.

(2) Characteristic debris. Hazardous debris that exhibits the characteristic of ignitability, corrosivity, or reactivity identified under §§ 261.21, 261.22, and 261.23 of this chapter, respectively, must be deactivated by treatment using one of the technologies identified in Table 1 of this section.

(3) Mixtures of debris types The treatment standards of Table 1 in this section must be achieved for each type of debris contained in a mixture of debris types If an immobilization technology is used in a treatment train, it must be the last treatment technology used.

(4) Mixtures of contaminant types. Debris that is contaminated with two or more contaminants subject to treatment identified under paragraph (b) of this section must be treated for each contaminant using one or more treatment technologies identified in Table 1 of this section. If an immobilization technology is used in a treatment train, it must be the last treatment technology used.

(5) Waste PCBs. Hazardous debris that is also a waste PCB under 40 CFR Part 761 is subject to the requirements of either 40 CFR Part 761 or the requirements of this section, whichever are more stringent.

(b) Contaminants subject to treatment. Hazardous debris

must be treated for each “contaminant subject to treatment.” The contaminants subject to treatment must be determined as follows:

(1) Toxicity characteristic debris. The contaminants subject to treatment for debris that exhibits the Toxicity Characteristic (TC) by § 261.24 of this chapter are those EP constituents for which the debris exhibits the TC toxicity characteristic.

(2) Debris contaminated with listed waste. The contaminants subject to treatment for debris that is contaminated with a prohibited listed hazardous waste are those constituents or wastes for which treatment standards are established for the waste under § 268.40.

Table 1.-Alternative Treatment Standards For Hazardous Debris¹

Technology description	Performance and/or design and operating standard	Contaminant restrictions ²
A. Extraction Technologies:		
1. Physical Extraction		
a. Abrasive Blasting: Removal of contaminated debris surface layers using water and/or air pressure to propel a solid media (e.g., steel shot, aluminum oxide grit, plastic beads).	Glass, Metal, Plastic, Rubber: Treatment to a clean debris surface. ³ Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Removal of at least 0.6 cm of the surface layer; treatment to a clean debris surface. ³	All debris: None.
b. Scarification, Grinding, and Planing: Process utilizing striking piston heads, saws, or rotating grinding wheels such that contaminated debris surface layers are removed.	Same as above	Same as above
c. Spalling: Drilling or chipping holes at appropriate locations and depth in the contaminated debris surface and applying a tool which exerts a force on the sides of those holes such that the surface layer is removed. The surface layer removed remains hazardous debris subject to the debris treatment standards.	Same as above.	Same as above
d. Vibratory Finishing: Process utilizing scrubbing media, flushing fluid, and oscillating energy such that hazardous contaminants or contaminated debris surface layers are removed. ⁴	Same as above.	Same as above.
e. High Pressure Steam and Water Sprays: Application of water or steam sprays of sufficient temperature, pressure, residence time, agitation, surfactants, and detergents to remove hazardous contaminants from debris surfaces or to remove contaminated debris surface layers.	Same as above.	Same as above.
2. Chemical Extraction		
a. Water Washing and Spraying: Application of water sprays or water baths of sufficient temperature, pressure, residence time, agitation, surfactants, acids, bases, and detergents to remove hazardous contaminants from debris surfaces and surface pores or to remove contaminated debris surface layers.	All Debris: Treatment to a clean debris surface ³ ; Brick, Cloth, Concrete, Paper, Pavement, Rock, Debris must be no more than 1.2 cm (1/2 inch) in one dimension (i.e., thickness limit, ⁵ except that this thickness limit may be waived under an “Equivalent Technology” approval under §268.42(b); ⁸ debris surfaces must be in contact with water solution for at least 15 minutes	Brick, Cloth, Concrete, Wood: Paper, Pavement, Wood: Contaminant must be soluble to at least 5% by weight in water solution or by weight in emulsion; if debris is contaminated with a dioxin-listed waste, ⁶ an “Equivalent Technology” approval under §268.42(b) must be obtained. ⁸
b. Liquid Phase Solvent Extraction: Removal of hazardous contaminants from debris surfaces and surface pores by applying a nonaqueous liquid or liquid solution which causes the hazardous contaminants to enter the liquid phase and be flushed away	Same as above.	Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Same as above, except that contaminant must be soluble to at least

Technology description	Performance and/or design and operating standard	Contaminant restrictions ²
from the debris along with the liquid or liquid solution while using appropriate agitation, temperature, and residence time. ⁴		5% by weight in the solvent.
c. Vapor Phase Solvent Extraction: Application of an organic vapor using sufficient agitation, residence time, and temperature to cause hazardous contaminants on contaminated debris surfaces and surface pores to enter the vapor phase and be flushed away with the organic vapor. ⁴	Same as above, except that brick, cloth, concrete, paper, pavement, rock and wood surfaces must be in contact with the organic vapor for at least 60 minutes.	Same as above.
3. Thermal Extraction		
a. High Temperature Metals Recovery: Application of sufficient heat, residence time, mixing, fluxing agents, and/or carbon in a smelting, melting, or refining furnace to separate metals from debris.	For refining furnaces, treated debris must be separated from treatment residuals using simple physical or mechanical means, ⁹ and, prior to further treatment, such residuals must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris.	Debris contaminated with a dioxin-listed waste: ⁵ Obtain an “Equivalent Technology” approval under §268.42(b). ⁸
b. Thermal Desorption: Heating in an enclosed chamber under either oxidizing or nonoxidizing atmospheres at sufficient temperature and residence time to vaporize hazardous contaminants from contaminated surfaces and surface pores and to remove the contaminants from the heating chamber in a gaseous exhaust gas. ⁷	All Debris: Obtain an “Equivalent Technology” approval under §268. 42(b); ⁸ treated debris must be separated from treatment residuals using simple physical or mechanical means, ⁹ and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris. Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Debris must be no more than 10 cm (4 inches) in one dimension (i.e., thickness limit), ⁵ except that this thickness limit may be waived under the “Equivalent Technology” approval	All Debris: Metals other than mercury.
B. Destruction Technologies:		
1. Biological Destruction (Biodegradation):		
Removal of hazardous contaminants from debris surfaces and surface pores in an aqueous solution and biodegradation of organic or nonmetallic inorganic compounds (i.e., inorganics that contain phosphorus, nitrogen, or sulfur) in units operated under either aerobic or anaerobic conditions.	All Debris: Obtain an “Equivalent Technology” approval under §268. 42(b); ⁸ treated debris must be separated from treatment residuals using simple physical or mechanical means, ⁹ and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris. Brick, Cloth, Concrete, Paper, Pavement, Rock, Wood: Debris must be no more than 1.2 cm (1/2 inch) in one dimension (i.e., thickness limit), ⁵ except that this thickness limit may be waived under the “Equivalent Technology” approval	All Debris: Metal contaminants.
2. Chemical Destruction		
a. Chemical Oxidation: Chemical or electrolytic oxidation utilizing the following oxidation reagents (or waste reagents) or combination of reagents-(1) hypochlorite (e.g., bleach); (2) chlorine; (3) chlorine dioxide; (4) ozone or UV (ultraviolet light) assisted ozone; (5) peroxides; (6) persulfates; (7) perchlorates; (8) permanganates; and/or (9) other oxidizing reagents of equivalent destruction efficiency. ⁴ Chemical oxidation specifically Wood: includes what is referred to as alkaline chlorination.		
All Debris: Obtain an “Equivalent Technology” approval under §268. 42(b); ⁸ treated debris must be separated from treatment residuals using simple physical or mechanical means, ⁹ and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris. Brick, Cloth, Concrete, Paper, Pavement, Rock, Debris must be no more than 1.2 cm (1/2 inch) in one dimension (i.e., thickness limit), ⁵ except that this thickness limit may be waived under the “Equivalent Technology” approval	All Debris: Obtain an “Equivalent Technology” approval under §268. 42(b); ⁸ treated debris must be separated from treatment residuals using simple physical or mechanical means, ⁹ and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris. Brick, Cloth, Concrete, Paper, Pavement, Rock, Debris must be no more than 1.2 cm (1/2 inch) in one dimension (i.e., thickness limit), ⁵ except that this thickness limit may be waived under the “Equivalent Technology” approval	All Debris: Metal contaminants
b. Chemical Reduction: Chemical reaction utilizing the following reducing reagents (or waste reagents) or combination of reagents: (1) sulfur dioxide; (2) sodium, potassium, or alkali salts of sulfites, bisulfites, and metabisulfites, and polyethylene glycols (e.g., NaPEG and KPEG); (3) sodium hydrosulfide; (4)		
Same as above.	Same as above.	Same as above.

Technology description

Performance and/or design and operating standard Contaminant restrictions²

ferrous salts; and/or (5) other reducing reagents of equivalent efficiency.⁴

3. Thermal Destruction: Treatment in an incinerator operating in accordance with Subpart O of Sections 264 or 265 of this chapter; a boiler or industrial furnace operating in accordance with Subsection H of § 266 of this chapter, or other thermal treatment unit operated in accordance with Subsection X, § 264 of this chapter, or Subsection P, § 265 of this chapter, but excluding for purposes of these debris treatment standards Thermal Desorption units.

Treated debris must be separated from treatment residuals using simple physical or mechanical means,⁹ and, prior to further treatment, such residue must meet the waste-specific treatment standards for organic compounds in the waste contaminating the debris.

Brick, Concrete, Glass, Metal, Pavement, Rock, Metal: Metals other than mercury, except that there are no metal restrictions for vitrification. Debris contaminated with a dioxin-listed waste.⁶ Obtain an "Equivalent Technology" approval under §268.42(b).⁸ except that this requirement does not apply to vitrification.

C. Immobilization Technologies:

1. Macroencapsulation: Application of surface coating materials such as polymeric organics (e.g., resins and plastics) or use of a jacket of inert debris & inorganic materials to substantially reduce surface exposure to potential leaching media.

Encapsulating material must completely encapsulate debris and be resistant to degradation by the its contaminants and materials into which it may come into contact after placement (leachate, other waste, microbes).

None.

2. Microencapsulation: Stabilization of the debris with the following reagents (or waste reagents) such that the leachability of the hazardous contaminants is reduced: (1) Portland cement; or (2) lime/ pozzolans (e.g., fly ash and cement kiln dust). Reagents (e.g., iron salts, silicates, and clays) may be added to enhance the set/cure time and/or compressive strength, or to reduce the leachability of the hazardous constituents.⁵

Leachability of the hazardous contaminants must be reduced.

None.

3. Sealing: Application of an appropriate material which adheres tightly to the debris surface to avoid exposure of the surface to potential leaching media. When necessary to effectively seal the surface, sealing entails pretreatment of the debris surface to remove foreign matter and to clean and roughen the surface. Sealing materials include epoxy, silicone, and urethane compounds, but paint may not be used as a sealant.

Sealing must avoid exposure of the debris surface to potential leaching media and sealant must be resistant to degradation by the debris and its contaminants and materials into which it may come into contact after placement (leachate, other waste, microbes).

None.

FOOTNOTE: 1Hazardous debris must be treated by either these standards or the waste-specific treatment standards for the waste contaminating the debris. The treatment standards must be met for each type of debris contained in a mixture of debris types, unless the debris is converted into treatment residue as a result of the treatment process. Debris treatment residuals are subject to the waste-specific treatment standards for the waste contaminating the debris.

FOOTNOTE: 2Contaminant restriction means that the technology is not BDAT for that contaminant. If debris containing a restricted contaminant is treated by the technology, the contaminant must be subsequently treated by a technology for which it is not restricted in order to be land disposed (and excluded from Subtitle C regulation).

FOOTNOTE: 3"Clean debris surface" means the surface, when viewed without magnification, shall be free of all visible contaminated soil and hazardous waste except that residual staining from soil and waste consisting of light shadows, slight streaks, or minor discolorations, and soil and waste in cracks, crevices, and pits may be present provided that such staining and waste and soil in cracks, crevices, and pits shall be limited to no more than 5% of each square inch of surface area.

FOOTNOTE: 4Acids, solvents, and chemical reagents may react with some debris and contaminants to form hazardous compounds. For example, acid washing of cyanide-contaminated debris could result in the formation of hydrogen cyanide. Some acids may also react violently with some debris and contaminants, depending on the concentration of the acid and the type of debris and contaminants. Debris treaters should refer to the safety precautions specified in Material Safety Data Sheets for various acids to avoid applying an incompatible acid to a particular debris/contaminant combination. For example, concentrated sulfuric acid may react violently with certain organic compounds, such as acrylonitrile.

FOOTNOTE: 5If reducing the particle size of debris to meet the treatment standards results in material that no longer meets the 60 mm minimum particle size limit for debris, such material is subject to the waste-specific treatment standards for the waste contaminating the material, unless the debris has been cleaned and separated from contaminated soil and waste prior to size reduction. At a minimum, simple physical or mechanical means must be used to provide such cleaning and separation of nondebris materials to ensure that the debris surface is free of caked soil, waste, or other nondebris material.

FOOTNOTE: 6Dioxin-listed wastes are EPA Hazardous Waste numbers FO20, FO21, FO22, FO23, FO26, and FO27.

FOOTNOTE: 7Thermal desorption is distinguished from Thermal Destruction in that the primary purpose of Thermal Desorption is to volatilize contaminants and to remove them from the treatment chamber for subsequent destruction or other treatment.

FOOTNOTE: 8The demonstration "Equivalent Technology" under §268.42(b) must document that the technology treats contaminants subject to treatment to a level equivalent to that required by the performance and design and operating standards for other technologies in this table such that residual levels of hazardous contaminants will not pose a hazard to human health and the environment absent management controls.

FOOTNOTE: 9Any soil, waste, and other nondebris material that remains on the debris surface (or remains mixed with the debris) after treatment is considered a treatment residual that must be separated from the debris using, at a minimum, simple physical or mechanical means. Examples of simple physical or mechanical means are vibratory or trommel screening or water washing. The debris surface need not be cleaned to a "clean debris surface" as defined in note 3 when separating treated debris from residue; rather, the surface must be free of caked soil, waste, or other nondebris material. Treatment residuals are subject to the waste-specific treatment standards for the waste contaminating the debris.

(3) Cyanide-reactive debris. Hazardous debris that is reactive because of cyanide must be treated for cyanide.

(c) Conditioned exclusion of treated debris. Hazardous debris that has been treated using one of the specified extraction or destruction technologies in Table 1 of this section and that does not exhibit a characteristic of hazardous waste identified under Subsection C, section 261, of this chapter after treatment is not a hazardous waste and need not be managed in a subtitle C facility. Hazardous debris contaminated with a listed waste that is treated by an immobilization technology specified in Table 1 is a hazardous waste and must be managed in a subtitle C facility.

(d) Treatment residuals-(1) General requirements. Except as provided by paragraphs (d)(2) and (d)(4) of this section:

(i) Residue from the treatment of hazardous debris must be separated from the treated debris using simple physical or mechanical means; and

(ii) Residue from the treatment of hazardous debris is subject to the waste-specific treatment standards provided by Subsection D of this section for the waste contaminating the debris.

(2) Nontoxic debris. Residue from the deactivation of ignitable, corrosive, or reactive characteristic hazardous debris (other than cyanide-reactive) that is not contaminated with a contaminant subject to treatment defined by paragraph (b) of this section, must be deactivated prior to land disposal and is not subject to the waste-specific treatment standards of Subsection D of this section.

(3) Cyanide-reactive debris. Residue from the treatment of debris that is reactive because of cyanide must meet the treatment standards for D003 in "Treatment Standards for Hazardous Wastes" at §268.40

(4) Ignitable nonwastewater residue. Ignitable nonwastewater residue containing equal to or greater than 10% total organic carbon is subject to the technology specified in the treatment standard for D001: Ignitable Liquids

(5) Residue from spalling. Layers of debris removed by spalling are hazardous debris that remain subject to the treatment standards of this section.

§ 268.46 Alternative treatment standards based on HTMR

For the treatment standards previously found in this section, refer to § 268.40

§ 268.47 [Reserved]

§ 268.48 Universal Treatment Standards

(a) Table UTS identifies the hazardous constituents, along with the nonwastewater and wastewater treatment standard levels, that are used to regulate most prohibited hazardous wastes with numerical limits. For determining compliance with treatment standards for underlying hazardous constituents as defined in § 2682(i), these treatment standards may not be exceeded. Compliance with these treatment standards is measured by an analysis of grab samples, unless otherwise noted in the following Table UTS.

§ 268.48 Table UTS – Universal Treatment Standards

TABLE UTS - UNIVERSAL TREATMENT STANDARDS

NOTE: NA means not applicable

Chemical Name	CAS No ¹	Waste waters ²	Nonwaste waters ³
Organic Constituents			
Acenaphthylene	208-96-8	0.059	3.4
Acenaphthene	83-32-9	0.059	3.4
Acetone	67-64-1	0.28	160
Acetonitrile	75-05-8	5.6	38
Acetophenone	96-86-2	0.010	9.7
2-Acetylaminofluorene	53-96-3	0.059	140
Acrolein	107-02-8	0.29	NA
Acrylamide	79-06-1	19	23
Acrylonitrile	107-13-1	0.24	84
Aldicarb sulfone ⁶	1646-88-4	0.056	0.28
Aldrin	309-00-2	0.021	0.066
4-Aminobiphenyl	92-67-1	0.13	NA
Aniline	62-53-3	0.81	14
Anthracene	120-12-7	0.059	3.4
Aramite	140-57-8	0.36	NA
alpha-BHC	319-84-6	0.00014	0.066
beta-BHC	319-85-7	0.00014	0.066
delta-BHC	319-86-8	0.023	0.066
gamma-BHC	58-89-9	0.0017	0.066
Barban ⁶	101-27-9	0.056	1.4
Bendiocarb ⁶	22781-23-3	0.056	1.4
Benomyl ⁶	17804-35-2	0.056	1.4
Benzene	71-43-2	0.14	10
Benz(a)anthracene	56-55-3	0.059	3.4
Benzal chloride	98-87-3	0.055	6.0
Benzo(b)fluoranthene	205-99-2	0.11	6.8
Benzo(k)fluoranthene	207-08-9	0.11	6.8
Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
Benzo(a)pyrene	50-32-8	0.061	3.4
Bromodichloromethane	75-27-4	0.35	15
Bromomethane/Methyl bromide	74-83-9	0.11	15
4-Bromophenyl phenyl ether	101-55-3	0.055	15
n-Butyl alcohol	71-36-3	5.6	2.6
Butylate ⁶	2008-41-5	0.042	1.4
Butyl benzyl phthalate	85-68-7	0.017	28
2-sec-Butyl-4,6-dinitrophenol/Dinoseb	88-85-7	0.066	2.5
Carbaryl ⁶	63-25-2	0.006	0.14
Carbenzadim ⁶	10605-21-7	0.056	1.4
Carbofuran ⁶	1563-66-2	0.006	0.14
Carbofuran phenol ⁶	1563-38-8	0.056	1.4
Carbon disulfide	75-15-0	3.8	4.8 ⁸
Carbon tetrachloride	56-23-5	0.057	6.0
Carbosulfan ⁶	55285-14-8	0.028	1.4
Chlordane (alpha and gamma isomers)	57-74-9	0.0033	0.26
p-Chloroaniline	106-47-8	0.46	16
Chlorobenzene	108-90-7	0.057	6.0

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Chlorobenzilate	510-15-6	0.10	NA	Ethyl benzene	100-41-4	0.057	10
2-Chloro-1,3-butadiene	126-99-8	0.057	0.28	Ethyl cyanide/Propanenitrile	107-12-0	0.24	360
Chlorodibromomethane	124-48-1	0.057	15	Ethyl ether	60-29-7	0.12	160
Chloroethane	75-00-3	0.27	6.0	bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
bis(2-Chloroethoxy)methane	11-91-1	0.036	7.2	Ethyl methacrylate	97-63-2	0.14	160
bis(2-Chloroethyl)ether	111-44-4	0.033	6.0	Ethylene oxide	75-21-8	0.12	NA
Chloroform	67-66-3	0.046	6.0	Famphur	52-85-7	0.017	15
bis(2-Chloroisopropyl)ether	39638-32-9	0.055	7.2	Fluoranthene	206-44-0	0.068	3.4
p-Chloro-m-cresol	59-50-7	0.018	14	Fluorene	86-73-7	0.059	3.4
2-Chloroethyl vinyl ether	110-75-8	0.062	NA	Formetanate hydrochloride ⁶	23422-53-9	0.056	1.4
Chloromethane/Methyl chloride	74-87-3	0.19	30	Heptachlor	76-44-8	0.0012	0.066
2-Chloronaphthalene	91-58-7	0.055	5.6	1,2,3,4,6,7,8- Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8- HpCDD)	35822-46-9	0.000035	.0025
2-Chlorophenol	95-57-8	0.044	5.7	1,2,3,4,6,7,8- Heptachlorodibenzofuran (1,2,3,4,6,7,8- HpCDF)	67562-39-4	0.000035	.0025
3-Chloropropylene	107-05-1	0.036	30	1,2,3,4,7,8,9-Heptachloro- dibenzofuran (1,2,3,4,7,8,9-H pCDF)	55673-89-7	0.000035	.0025
Chrysene	218-01-9	0.059	3.4	Heptachlor epoxide	1024-57-3	0.016	0.066
o-Cresol	95-48-7	0.11	5.6	Hexachlorobenzene	118-74-1	0.055	10
m-Cresol	108-39-4	0.77	5.6	Hexachlorobutadiene	87-68-3	0.055	5.6
p-Cresol	106-44-5	0.77	5.6	Hexachlorocyclopentadiene	77-47-4	0.057	2.4
m-Cumenyl methylcarbamate ⁶	64-00-6	0.056	1.4	HxCDDs (All Hexachlorodibenzo-p-dioxins) NA		0.000063	0.001
Cyclohexanone	108-94-1	0.36	0.75 ⁸	HxCDFs (All Hexachlorodibenzofurans) NA		0.000063	0.001
o,p'-DDD	53-19-0	0.023	0.087	Hexachloroethane	67-72-1	0.055	30
p,p'-DDD	72-54-8	0.023	0.087	Hexachloropropylene	1888-71-7	0.035	30
o,p'-DDE	3424-82-6	0.031	0.087	Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
p,p'-DDE	72-55-9	0.031	0.087	Iodomethane	74-88-4	0.19	65
o,p'-DDT	789-02-6	0.0039	0.087	Isobutyl alcohol	78-83-1	5.6	170
p,p'-DDT	50-29-3	0.0039	0.087	Isodrin	465-73-6	0.021	0.066
Dibenz(a,h)anthracene	53-70-3	0.055	8.2	Isosafrole	120-58-1	0.081	2.6
Dibenz(a,e)pyrene	192-65-4	0.061	NA	Kepone	143-50-0	0.0011	0.13
1,2-Dibromo-3-chloropropane	96-12-8	0.11	15	Methacrylonitrile	126-98-7	0.24	84
1,2-Dibromoethane	106-93-4	0.028	15	Methanol	67-56-1	5.6	0.75 ⁸
Dibromomethane	74-95-3	0.11	15	Methapyrilene	91-80-5	0.081	1.5
m-Dichlorobenzene	541-73-1	0.036	6.0	Methiocarb ⁶	2032-65-7	0.056	1.4
o-Dichlorobenzene	95-50-1	0.088	6.0	Methomyl ⁶	16752-77-5	0.028	0.14
p-Dichlorobenzene	106-46-7	0.090	6.0	Methoxychlor	72-43-5	0.25	0.18
Dichlorodifluoromethane	75-71-8	0.23	7.2	3-Methylcholanthrene	56-49-5	0.0055	15
1,1-Dichloroethane	75-34-3	0.059	6.0	4,4-Methylene bis(2-chloroaniline)	101-14-4	0.50	30
1,2-Dichloroethane	107-06-2	0.21	6.0	Methylene chloride	75-09-2	0.089	30
1,1-Dichloroethylene	75-35-4	0.025	6.0	Methyl ethyl ketone	78-93-3	0.28	36
trans-1,2-Dichloroethylene	56-60-5	0.054	30	Methyl isobutyl ketone	108-10-1	0.14	33
2,4-Dichlorophenol	120-83-2	0.044	14	Methyl methacrylate	80-62-6	0.14	160
2,6-Dichlorophenol	87-65-0	0.044	14	Methyl methansulfonate	66-27-3	0.018	NA
2,4-Dichlorophenoxyacetic acid/2,4-D 94-75-7		0.72	10	Methyl parathion	298-00-0	0.014	4.6
1,2-Dichloropropane	78-87-5	0.85	18	Metolcarb ⁶	1129-41-5	0.056	1.4
cis-1,3-Dichloropropylene	10061-01-5	0.036	18	Mexacarbate ⁶	315-18-4	0.056	1.4
trans-1,3-Dichloropropylene	10061-02-6	0.036	18	Molinate ⁶	2212-67-1	0.042	1.4
Dieldrin	60-57-1	0.017	0.13	Naphthalene	91-20-3	0.059	5.6
Diethyl phthalate	84-66-2	0.20	28	2-Naphthylamine	91-59-8	0.52	NA
p-Dimethylaminoazobenzene	60-11-7	0.13	NA	o-Nitroaniline	88-74-4	0.27	14
2,4-Dimethyl phenol	105-67-9	0.036	14	p-Nitroaniline	100-01-6	0.028	28
Dimethyl phthalate	131-11-3	0.047	28	Nitrobenzene	98-95-3	0.068	14
Di-n-butyl phthalate	84-74-2	0.057	28	5-Nitro-o-toluidine	99-55-8	0.32	28
1,4-Dinitrobenzene	100-25-4	0.32	2.3	o-Nitrophenol	88-75-5	0.028	13
4,6-Dinitro-o-cresol	534-52-1	0.28	160	p-Nitrophenol	100-02-7	0.12	29
2,4-Dinitrophenol	51-28-5	0.12	160	N-Nitrosodiethylamine	55-18-5	0.40	28
2,4-Dinitrotoluene	121-14-2	0.32	140	N-Nitrosodimethylamine	62-75-9	0.40	2.3
2,6-Dinitrotoluene	606-20-2	0.55	28	N-Nitroso-di-n-butylamine	924-16-3	0.40	17
Di-n-octyl phthalate	117-84-0	0.017	28	N-Nitrosomethylethylamine	10595-95-6	0.40	2.3
Di-n-propylnitrosamine	621-64-7	0.40	14	N-Nitrosomorpholine	59-89-2	0.40	2.3
1,4-Dioxane	123-91-1	12.0	170	N-Nitrosopiperidine	100-75-4	0.013	35
Diphenylamine	122-39-4	0.92	13	N-Nitrosopyrrolidine	930-55-2	0.013	35
Diphenylnitrosamine	86-30-6	0.92	13	Oxamyl ⁶	23135-22-0	0.056	0.28
1,2-Diphenylhydrazine	122-66-7	0.087	NA	Parathion	56-38-2	0.014	4.6
Disulfoton	298-04-4	0.017	6.2	Total PCBs (sum of all PCB isomers, or all Aroclors)	1336-36-3	0.10	10
Dithiocarbamates (total) ⁶	NA	0.028	28	Pebulate ⁶	1114-71-2	0.042	1.4
Endosulfan I	959-98-8	0.023	0.066				
Endosulfan II	33213-65-9	0.029	0.13				
Endosulfan sulfate	1031-07-8	0.029	0.13				
Endrin	72-20-8	0.0028	0.13				
Endrin aldehyde	7421-93-4	0.025	0.13				
EPTC ⁶	759-94-4	0.042	1.4				
Ethyl acetate	141-78-6	0.34	33				

Pentachlorobenzene	608-93-5	0.055	10
PeCDDs (All Pentachlorodibenzo-p-dioxins)NA		0.000063	0.001
PeCDFs (All Pentachlorodibenzofurans) NA		0.000035	0.001
Pentachloroethane	76-01-7	0.055	6.0
Pentachloronitrobenzene	82-68-8	0.055	4.8
Pentachlorophenol	87-86-5	0.089	7.4
Phenacetin	62-44-2	0.081	16
Phenanthrene	85-01-8	0.059	5.6
Phenol	108-95-2	0.039	6.2
Phorate	298-02-2	0.021	4.6
Phthalic acid	100-21-0	0.055	28
Phthalic anhydride	85-44-9	0.055	28
Physostigmine ⁶	57-47-6	0.056	1.4
Physostigmine salicylate ⁶	6 57-64-7	0.056	1.4
Promecarb ⁶	2631-37-0	0.056	1.4
Pronamide	23950-58-5	0.093	1.5
Propham ⁶	122-42-9	0.056	1.4
Propoxur ⁶	114-26-1	0.056	1.4
Prosulfocarb ⁶	52888-80-9	0.042	1.4
Pyrene	129-00-0	0.067	8.2
Pyridine	110-86-1	0.014	16
Safrole	94-59-7	0.081	22
Silvex/2,4,5-TP	93-72-1	0.72	7.9
1,2,4,5-Tetrachlorobenzene	95-94-3	0.055	14
TCDDs (All Tetrachlorodibenzo-p-dioxins) NA		0.000063	0.001
TCDFs (All Tetrachlorodibenzofurans) NA		0.000063	0.001
1,1,1,2-Tetrachloroethane	630-20-6	0.057	6.0
1,1,2,2-Tetrachloroethane	79-34-5	0.057	6.0
Tetrachloroethylene	127-18-4	0.056	6.0
2,3,4,6-Tetrachlorophenol	58-90-2	0.030	7.4
Thiodicarb ⁶	59669-26-0	0.019	1.4
Thiophanate-methyl ⁶	23564-05-8	0.056	1.4
Toluene	108-88-3	0.080	10
Toxaphene	8001-35-2	0.0095	2.6
Triallate ⁶	2303-17-5	0.042	1.4
Tribromomethane/Bromoform	75-25-2	0.63	15
1,2,4-Trichlorobenzene	120-82-1	0.055	19
1,1,1-Trichloroethane	71-55-6	0.054	6.0
1,1,2-Trichloroethane	79-00-5	0.054	6.0
Trichloroethylene	79-01-6	0.054	6.0
Trichloromonofluoromethane	75-69-4	0.020	30
2,4,5-Trichlorophenol	95-95-4	0.18	7.4
2,4,6-Trichlorophenol	88-06-2	0.035	7.4
2,4,5-Trichlorophenoxyacetic acid/2,4,5-T 93-76-5		0.72	7.9
1,2,3-Trichloropropane	96-18-4	0.85	30
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	0.057	30
Triethylamine ⁶	101-44-8	0.081	1.5
tris-(2,3-Dibromopropyl) phosphate	126-72-7	0.11	0.10
Vernolate ⁶	1929-77-7	0.042	1.4
Vinyl chloride	75-01-4	0.27	6.0
Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30
Inorganic Constituents			
Antimony	7440-36-0	1.9	1.15 ⁸
Arsenic	7440-38-2	1.4	5.0 ⁸
Barium	7440-39-3	1.2	21 ⁸
Beryllium	7440-41-7	0.82	1.22 ⁸
Cadmium	7440-43-9	0.69	0.11 ⁸
Chromium (Total)	7440-47-3	2.77	0.60 ⁸
Cyanides (Total) ⁴	57-12-5	1.2	590
Cyanides (Amenable) ⁴	57-12-5	0.86	30
Fluoride ⁵	16984-48-8	35	NA
Lead	7439-92-1	0.69	0.75 ⁸
Mercury - Nonwastewater from Retort			
	7439-97-6	NA	0.20 ⁸
Mercury - All Others	7439-97-6	0.15	0.025 ⁸
Nickel	7440-02-0	3.98	11 ⁸

Selenium ⁷	7782-49-2	0.82	5.7 ⁸
Silver	7440-22-4	0.43	0.14 ⁸
Sulfide ⁵	18496-25-8	14	NA
Thallium	7440-28-0	1.4	0.20 ⁸
Vanadium ⁵	7440-62-2	4.3	1.6 ⁸
Zinc ⁵	7440-66-6	2.61	4.3 ⁸

FOOTNOTES TO TABLE UTS

1. CAS means Chemical Abstract Services. When the waste code and/or regulated constituents are described as a combination of a chemical with its salts and/or esters, the CAS number is given for the parent compound only.
2. Concentration standards for wastewaters are expressed in mg/L and are based on analysis of composite samples.
3. Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of Section 264, Subsection O or Section 265, Subsection O, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in § 268.40(d). All concentration standards for nonwastewaters are based on analysis of grab samples.
4. Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010C or 9012B, found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.
5. These constituents are not "underlying hazardous constituents" in characteristic wastes, according to the definition at §268.2(i).
6. Between August 26, 1998 and March 4, 1999, these constituents are not "underlying hazardous constituents" as defined in § 268.2(i) of this section.
7. This constituent is not an underlying hazardous constituent as defined at § 268.2(i) of this Section because its UTS level is greater than its TC level, thus a treated selenium waste would always be characteristically hazardous, unless it is treated to below its characteristic level.
8. Measured in mg/L, TCLP.
9. This standard is temporarily deferred for soil exhibiting a hazardous characteristic due to D004-D011 only.

§ 268.49 Alternative LDR treatment standards for contaminated soil

(a) Applicability. You must comply with LDRs prior to placing soil that exhibits a characteristic of hazardous waste, or exhibited a characteristic of hazardous waste at the time it was generated, into a land disposal unit. The following chart describes whether you must comply with LDRs prior to placing soil contaminated by listed hazardous waste into a land disposal unit:

*For dates of LDR applicability, see Section 268 Appendix VII. To determine the date any given listed hazardous waste contaminated any given volume of soil, use the last date any given listed hazardous waste was placed into any given land disposal unit or, in the case of an accidental spill, the date of the spill.

(b) Prior to land disposal, contaminated soil identified by paragraph (a) of this section as needing to comply with LDRs must be treated according to the applicable treatment standards specified in paragraph (c) of this section or according to the Universal Treatment Standards specified in § 268.48 applicable to the contaminating listed hazardous waste and/or the applicable characteristic of hazardous waste if the soil is characteristic. The treatment standards specified in paragraph (c) of this section and the Universal Treatment Standards may be modified through a treatment variance approved in accordance with § 268.44.

(c) Treatment standards for contaminated soils. Prior to land disposal, contaminated soil identified by paragraph (a) of this section as needing to comply with LDRs must be treated according to all the standards specified in this paragraph or according to the Universal Treatment Standards specified in 40 CFR 268.48.

(1) All soils. Prior to land disposal, all constituents

If LDRs	And if LDRs	And if	Then you
Applied to the listed waste when it contaminated the soil	Apply to the listed waste now		Must comply with LDRS
Didn't apply to the listed waste when it contaminated the soil	Apply to the listed waste now	The soil is determined to contain the listed waste when the soil is first generated	Must comply with LDRS
Didn't apply to the listed waste when it contaminated the soil	Apply to the listed waste now	The soil is determined not to contain the listed waste when the soil is first generated	Do not need to comply with LDRs
Didn't apply to the listed waste when it contaminated the soil	Don't apply to the listed waste now		Do not need to comply with LDRs

the treatment required by paragraph (c)(1) of this section, prior to land disposal, soils that exhibit the characteristic of ignitability, corrosivity, or reactivity must be treated so as to eliminate these characteristics.

(3) Soils that contain nonanalyzable constituents. In addition to the treatment requirements of paragraphs (c)(1) and (2) of this section, prior to land disposal, the following treatment is required for soils that contain nonanalyzable constituents:

(A) For soil that contains only analyzable and nonanalyzable organic constituents, treatment of the analyzable organic constituents to the levels specified in paragraphs (c)(1) and (2) of this section; or,

(B) For soil that contains only nonanalyzable constituents, treatment by the method(s) specified in § 268.42 for the waste contained in the soil.

(d) Constituents subject to treatment. When applying the soil treatment standards in paragraph (c) of this section, constituents subject to treatment are any constituents listed in §268.48 Table UTS-Universal Treatment Standards that are reasonably expected to be present in any given volume of contaminated soil, except fluoride, selenium, sulfides, vanadium, zinc, and that are present at concentrations greater than ten times the universal treatment standard. PCBs are not a constituent subject to treatment in any given volume of soil which exhibits the toxicity characteristic solely

subject to treatment must be treated as follows:

(A) For non-metals except carbon disulfide, cyclohexanone, and methanol, treatment must achieve 90 percent reduction in total constituent concentrations, except as provided by paragraph (c)(1)(C) of this section.

(B) For metals and carbon disulfide, cyclohexanone, and methanol, treatment must achieve 90 percent reduction in constituent concentrations as measured in leachate from the treated media (tested according to the TCLP) or 90 percent reduction in total constituent concentrations (when a metal removal treatment technology is used), except as provided by paragraph (c)(1)(C) of this section.

(C) When treatment of any constituent subject to treatment to a 90 percent reduction standard would result in a concentration less than 10 times the Universal Treatment Standard for that constituent, treatment to achieve constituent concentrations less than 10 times the universal treatment standard is not required. Universal Treatment Standards are identified in § 268.48 – Table UTS.

(2) Soils that exhibit the characteristic of ignitability, corrosivity or reactivity. In addition to

because of the presence of metals.

(e) Management of treatment residuals. Treatment residuals from treating contaminated soil identified by paragraph (a) of this section as needing to comply with LDRs must be managed as follows:

(1) Soil residuals are subject to the treatment standards of this section;

(2) Non-soil residuals are subject to:

(A) For soils contaminated by listed hazardous waste, the RCRA Subtitle C standards applicable to the listed hazardous waste; and

(B) For soils that exhibit a characteristic of hazardous waste, if the non-soil residual also exhibits a characteristic of hazardous waste, the treatment standards applicable to the characteristic hazardous waste.

Subsection E -- Prohibitions on Storage

§ 268.50 Prohibitions on storage of restricted wastes

(a) Except as provided in this section, the storage of hazardous wastes restricted from land disposal under Subsection C of this section of RCRA section 3004 is prohibited, unless the following conditions are met:

(1) A generator stores such wastes in tanks, containers, or containment buildings on-site solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal and the generator complies with the requirements in § 262.34 and sections 264 and 265 of this chapter.

(2) An owner/operator of a hazardous waste treatment, storage, or disposal facility stores such wastes in tanks, containers, or containment buildings solely for the purpose of the accumulation of such quantities of hazardous waste as necessary to facilitate proper recovery, treatment, or disposal and:

(i) Each container is clearly marked to identify its contents and the date each period of accumulation begins;

(ii) Each tank is clearly marked with a description of its contents, the quantity of each hazardous waste received, and the date each period of accumulation begins, or such information for each tank is recorded and maintained in the operating record at that facility. Regardless of whether the tank itself is marked, an owner/operator must comply with the operating record requirements specified in § 264.73 or § 265.73.

(3) A transporter stores manifested shipments of such wastes at a transfer facility for 10 days or less.

(b) An owner/operator of a treatment, storage or disposal facility may store such wastes for up to one year unless the Agency can demonstrate that such storage was not solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.

(c) An owner/operator of a treatment, storage or disposal facility may store such wastes beyond one year; however, the owner/operator bears the burden of proving that such storage was solely for the purpose of accumulation of such quantities of hazardous waste as are necessary to facilitate proper recovery, treatment, or disposal.

(d) If a generator's waste is exempt from a prohibition on the type of land disposal utilized for the waste (for example, because of an approved case-by-case extension under § 268.5, an approved § 268.6 petition, or a national capacity variance under Subsection C), the prohibition in paragraph (a) of this section does not apply during the period of such exemption.

(e) The prohibition in paragraph (a) of this section does not apply to hazardous wastes that meet the treatment standards specified under §§ 268.41, 268.42, and 268.43 or the treatment standards specified under the variance in § 268.44, or, where treatment standards have not been specified, is in compliance with the applicable prohibitions specified in § 268.32 or RCRA section 3004.

(f) Liquid hazardous wastes containing polychlorinated biphenyls (PCBs) at concentrations greater than or equal to

50 ppm must be stored at a facility that meets the requirements of 40 CFR 761.65(b) and must be removed from storage and treated or disposed as required by this section within one year of the date when such wastes are first placed into storage. The provisions of paragraph (c) of this section do not apply to such PCB wastes prohibited under § 268.32 of this section.

(g) The prohibition and requirements in this Section do not apply to hazardous remediation wastes stored in a staging pile approved pursuant to § 264.554 of this regulation.

Appendix I to Section 268 -- [Reserved]

Appendix II to Section 268 -- [Reserved]

Appendix III to Section 268—List of Halogenated Organic Compounds Regulated Under § 268.32

In determining the concentration of HOCs in a hazardous waste for purposes of the § 26832 land disposal prohibition, EPA has defined the HOCs that must be included in a calculation as any compounds having a carbon-halogen bond which are listed in this Appendix (see § 268.2). Appendix III to Part 268 consists of the following compounds:

I Volatiles

1. Bromodichloromethane
2. Bromomethane
3. Carbon Tetrachloride
4. Chlorobenzene
5. 2-Chloro-1,3-butadiene
6. Chlorodibromomethane
7. Chloroethane
8. 2-Chloroethyl vinyl ether
9. Chloroform
10. Chloromethane
11. 3-Chloropropene
12. 1,2-Dibromo-3-chloropropane
13. 1,2-Dibromomethane
14. Dibromomethane
15. Trans-1,4-Dichloro-2—butene
16. Dichlorodifluoromethane
17. 1,1-Dichloroethane
18. 1,2-Dichloroethane
19. 1,1-Dichloroethylene
20. Trans-1,2-Dichloroethene
21. 1,2-Dichloropropane
22. Trans-1,3-Dichloropropene
23. cis-1,3-Dichloropropene
24. Iodomethane
25. Methylene chloride
26. 1,1,1,2-Tetrachloroethane
27. 1,1,2,2-Tetrachloroethane
28. Tetrachloroethene
29. Tribromomethane
30. 1,1,1-Trichloroethane
31. 1,1,2-Trichloroethane
32. Trichloroethene
33. Trichloromonofluoromethane
34. 1,2,3-Trichloropropane
35. Vinyl Chloride

II. Semivolatiles

1. Bis(2-chloroethoxy)ethane
2. Bis(2-chloroethyl)ether
3. Bis(2-chloroisopropyl)ether
4. p-Chloroaniline
5. Chlorobenzilate
6. p-Chloro-m-cresol
7. 2-Chloronaphthalene
8. 2-Chlorophenol
9. 3-Chloropropionitrile
10. m-Dichlorobenzene
11. o-Dichlorobenzene
12. p-Dichlorobenzene
13. 3,3'-Dichlorobenzidine
14. 2,4-Dichlorophenol
15. 2,6-Dichlorophenol
16. Hexachlorobenzene
17. Hexachlorobutadiene
18. Hexachlorocyclopentadiene
19. Hexachloroethane
20. Hexachloroprophene
21. Hexachlorpropene
22. 4,4'-Methylenebis(2-chloroaniline)
23. Pentachlorobenzene
24. Pentachloroethane
25. Pentachloronitrobenzene
26. Pentachlorophenol
27. Pronamide
28. 1,2,4,5-Tetrachlorobenzene
29. 2,3,4,6-Tetrachlorophenol
30. 1,2,4-Trichlorobenzene
31. 2,4,5-Trichlorophenol
32. 2,4,6-Trichlorophenol
33. Tris(2,3-dibromopropyl)phosphate

III. Organochlorine Pesticides

1. Aldrin
2. alpha-BHC
3. beta-BHC
4. delta-BHC
5. gamma-BHC
6. Chlorodane
7. DDD
8. DDE
9. DDT
10. Dieldrin
11. Endosulfan I
12. Endosulfan II
13. Endrin
14. Endrin aldehyde
15. Heptachlor
16. Heptachlor epoxide
17. Isodrin
18. Kepone
19. Methoxychlor
20. Toxaphene

IV. Phenoxyacetic Acid Herbicides

1. 2,4-Dichlorophenoxyacetic acid
2. Silvex
3. 2,4,5-T

V. PCBs

1. Aroclor 1016
2. Aroclor 1221
3. Aroclor 1232
4. Aroclor 1242

5. Aroclor 1248
6. Aroclor 1254
7. Aroclor 1260
8. PCBs not otherwise specified

VI. Dioxins and Furans

1. Hexachlorodibenzo-p-dioxins
2. Hexachlorodibenzofuran
3. Pentachlorodibenzo-p-dioxins
4. Pentachlorodibenzofuran
5. Tetrachlorodibenzo-p-dioxins
6. Tetrachlorodibenzofuran
7. 2,3,7,8-Tetrachlorodibenzo-p-dioxin

Appendix IV to Section 268-Wastes Excluded From Lab Packs Under the Alternative Treatment Standards of § 268.42(c)

Hazardous waste with the following EPA Hazardous Waste Codes may not be placed in lab packs under the alternative lab pack treatment standards of § 268.42(c): D009, F019, K003, K004, K005, K006, K062, K071, K100, K106, P010, P011, P012, P076, P078, U134, U151.

Appendix V to Section 268 -- [Reserved]

Appendix VI to Section 268 — Recommended Technologies to Achieve Deactivation of Characteristics in Section 268.42

The treatment standard for many characteristic wastes is stated in the § 268.40 Table of Treatment Standards as “Deactivation and meet UTS.” EPA has determined that many technologies, when used alone or in combination, can achieve the deactivation portion of the treatment standard. Characteristic wastes that are not managed in a facility regulated by the Clean Water Act (CWA) or in a CWA-equivalent facility, and that also contain underlying hazardous constituents (see § 268.2(i)) must be treated not only by a “deactivating” technology to remove the characteristic, but also to achieve the universal treatment standards (UTS) for underlying hazardous constituents. The following appendix presents a partial list of technologies, utilizing the five letter technology codes established in § 268.42 Table 1, that may be useful in meeting the treatment standard. Use of these specific technologies is not mandatory and does not preclude direct reuse, recovery, and/or the use of other pretreatment technologies, provided deactivation is achieved and underlying hazardous constituents are treated to achieve the UTS.

Waste Code/Subcategory	Nonwastewaters	Wastewaters
D001 Ignitable liquids based on § 261.21(a)(1) - Low TOC Nonwastewater category (containing 1% to <10% TOC)	RORGS INCIN WETOX CHOXD BIODEG	N/A

D001 Ignitable liquids based on § 261.21(a)(1) - Ignitable wastewater subcategory (containing <1% TOC)	N/A	RORGS INCIN WETOX CHOXD BIODG
D001 Compressed Gases based on § 261.21(a)(3)	RCGAS INCIN FSUBS ADGAS fb INCIN ADGAS fb CHOXD/CHRED	N/A
D001 Ignitable Reactives based on § 261.21(a)(2)	WTRRX CHOXD CHRED STABL INCIN	N/A
D001 Ignitable Oxidizers based on § 261.21(a)(4)	CHRED INCIN	CHRED INCIN
D002 Acid subcategory based on § 261.22(a)(1) with pH <=2	RCORR NEUTR INCIN	NEUTR INCIN
D002 Alkaline subcategory based on § 261.22(a)(1) with pH>=12.5	NEUTR INCIN	NEUTR INCIN
D002 Other corrosives based on § 261.22(a)(2)	CHOXD CHRED INCIN STABL INCIN	CHOXD CHRED INCIN
D003 Water reactives based on § 261.23(a)(2), (3), and (4)	WTRRX CHOXD CHRED	N/A
D003 Reactive sulfides based on § 261.23(a)(5)	CHOXD CHRED INCIN STABL	CHOXD CHRED BIODG INCIN
D003 Explosives based on § 261.23(a)(6), (7), and (8)	INCIN CHOXD CHRED	INCIN CHOXD CHRED BIODG CARBN
D003 Other reactives based on § 261.23(a)(1)	INCIN CHOXD CHRED	INCIN CHOXD CHRED BIODG CARBN
K044 wastewater treatment sludges from the manufacture and processing of explosives	CHOXD CHRED INCIN	CHOXD CHRED BIODG CARBN INCIN
K045 Spent carbon from the treatment of wastewaters containing explosives	CHOXD CHRED INCIN	CHOXD CHRED BIODG CARBN INCIN
K047 Pink/red water from TNT operations	CHOXD CHRED INCIN	CHOXD CHRED BIODG CARBN INCIN

Note: "N/A" stands for "not applicable"; "fb" stands for "followed by"

Appendix VII to Section 268

**Table 1
Effective Dates of Surface Disposed Wastes (Non-Soil and Debris) Regulated in the LDRS^a — Comprehensive List**

Waste code	Waste category	Effective date
D001 ^c	All (except High TOC Ignitable Liquids)	Aug 9, 1993
D001	High TOC Ignitable Liquids	Aug 8, 1990
D002 ^c	All	Aug 9, 1993
D003 ^c	All	July 8, 1996
D004	Nonwastewater	May 8, 1992
D004	Wastewater	Aug 8, 1992
D005	All	Aug 8, 1990
D006	All	Aug 8, 1990
D007	All	Aug 8, 1990
D008	Lead materials before secondary smelting	May 8, 1992
D008	All others	Aug 8, 1990
D009	Nonwastewater	May 8, 1992
D009	All others	Aug 8, 1990
D010	All	Aug 8, 1990
D011	All	Aug 8, 1990
D012 (that exhibit the toxicity characteristic based on the TCLP) ^d	All	Dec 14, 1994
D013 (that exhibit the toxicity characteristic based on the TCLP) ^d	All	Dec 14, 1994
D014 (that exhibit the toxicity characteristic based on the TCLP) ^d	All	Dec 14, 1994
D015 (that exhibit the toxicity characteristic based on the TCLP) ^d	All	Dec 14, 1994
D016 (that exhibit the toxicity characteristic based on the TCLP) ^d	All	Dec 14, 1994
D017 (that exhibit the toxicity characteristic based on the TCLP) ^d	All	Dec 14, 1994
D018	Mixed with radioactive wastes	Sept 19, 1996
D018	All others	Dec 19, 1994
D019	Mixed with radioactive wastes	Sept 19, 1996
D019	All others	Dec 19, 1994
D020	Mixed with radioactive wastes	Sept 19, 1996
D020	All others	Dec 19, 1994
D021	Mixed with radioactive wastes	Sept 19, 1996
D021	All others	Dec 19, 1994
D022	Mixed with radioactive wastes	Sept 19, 1996
D022	All others	Dec 19, 1994
D023	Mixed with radioactive wastes	Sept 19, 1996
D023	All others	Dec 19, 1994
D024	Mixed with radioactive wastes	Sept 19, 1996
D024	All others	Dec 19, 1994
D025	Mixed with radioactive wastes	Sept 19, 1996
D025	All others	Dec 19, 1994
D026	Mixed with radioactive wastes	Sept 19, 1996
D026	All others	Dec 19, 1994
D027	Mixed with radioactive wastes	Sept 19, 1996
D027	All others	Dec 19, 1994
D028	Mixed with radioactive wastes	Sept 19, 1996
D028	All others	Dec 19, 1994
D029	Mixed with radioactive wastes	Sept 19, 1996
D029	All others	Dec 19, 1994
D030	Mixed with radioactive wastes	Sept 19, 1996
D030	All others	Dec 19, 1994
D031	Mixed with radioactive wastes	Sept 19, 1996
D031	All others	Dec 19, 1994
D032	Mixed with radioactive wastes	Sept 19, 1996
D032	All others	Dec 19, 1994
D033	Mixed with radioactive wastes	Sept 19, 1996

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D033	All others	Dec 19, 1994
D034	Mixed with radioactive wastes	Sept 19, 1996
D034	All others	Dec 19, 1994
D035	Mixed with radioactive wastes	Sept 19, 1996
D035	All others	Dec 19, 1994
D036	Mixed with radioactive wastes	Sept 19, 1996
D036	All others	Dec 19, 1994
D037	Mixed with radioactive wastes	Sept 19, 1996
D037	All others	Dec 19, 1994
D038	Mixed with radioactive wastes	Sept 19, 1996
D038	All others	Dec 19, 1994
D039	Mixed with radioactive wastes	Sept 19, 1996
D039	All others	Dec 19, 1994
D040	Mixed with radioactive wastes	Sept 19, 1996
D040	All others	Dec 19, 1994
D041	Mixed with radioactive wastes	Sept 19, 1996
D041	All others	Dec 19, 1994
D042	Mixed with radioactive wastes	Sept 19, 1996
D042	All others	Dec 19, 1994
D043	Mixed with radioactive wastes	Sept 19, 1996
D043	All others	Dec 19, 1994
F001	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent- containing sludges and solids	Nov 8, 1988
F001	All others	Nov 8, 1986
F002 (1,1,2-trichloroethane)	Wastewater and Nonwastewater	Aug 8, 1990
F002	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent- containing sludges and solids	Nov 8, 1988
F002	All others	Nov 8, 1986
F003	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent- containing sludges and solids	Nov 8, 1988
F003	All others	Nov 8, 1986
F004	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent- containing sludges and solids	Nov 8, 1988
F004	All others	Nov 8, 1986
F005 (benzene, 2-ethoxy ethanol, 2-nitropropane)	Wastewater and Nonwastewater	Aug 8, 1990
F005	Small quantity generators, CERCLA response/RCRA corrective action, initial generator's solvent-water mixtures, solvent- containing sludges and solids	Nov 8, 1988
F005	All others	Nov 8, 1986
F006	Wastewater	Aug 8, 1990
F006	Nonwastewater	Aug 8, 1988
F006 (cyanides)	Nonwastewater	July 8, 1989
F007	All	July 8, 1989
F008	All	July 8, 1989
F009	All	July 8, 1989
F010	All	June 8, 1989
F011 (cyanides)	Nonwastewater	Dec 8, 1989
F011	All others	July 8, 1989
F012 (cyanides)	Nonwastewater	Dec 8, 1989
F012	All others	July 8, 1989

F019	All	Aug 8, 1990
F020	All	Nov 8, 1988
F021	All	Nov 8, 1988
F025	All	Aug 8, 1990
F026	All	Nov 8, 1988
F027	All	Nov 8, 1988
F028	All	Nov 8, 1988
F032	Mixed with radioactive wastes	May 12, 1999
F032	All others	Aug 12, 1997
F034	Mixed with radioactive wastes	May 12, 1999
F034	All others	Aug 12, 1997
F035	Mixed with radioactive waste	May 12, 1999
F035	All others	Aug 12, 1997
F037	Not generated from surface impoundment cleanouts or closures	June 30, 1993
F037	Generated from surface impoundment cleanouts or closures	June 30, 1994
F037	Mixed with radioactive wastes	June 30, 1993
F038	Not generated from surface impoundment cleanouts or closure	June 30, 1993
F038	Generated from surface impoundment cleanouts or closures	June 30, 1994
F038	Mixed with radioactive wastes	June 30, 1994
F039	Wastewater	Aug 8, 1990
F039	Nonwastewater	May 8, 1992
K001 (organics)	All	Aug 8, 1988
K001	All others	Aug 8, 1988
K002	All	Aug 8, 1990
K003	All	Aug 8, 1990
K004	Wastewater	Aug 8, 1990
K004	Nonwastewater	Aug 8, 1988
K005	Wastewater	Aug 8, 1990
K005	Nonwastewater	June 8, 1989
K006	All	Aug 8, 1990
K007	Wastewater	Aug 8, 1990
K007	Nonwastewater	June 8, 1989
K008	Wastewater	Aug 8, 1990
K008	Nonwastewater	Aug 8, 1988
K009	All	June 8, 1989
K010	All	June 8, 1989
K011	Wastewater	Aug 8, 1990
K011	Nonwastewater	June 8, 1989
K013	Wastewater	Aug 8, 1990
K013	Nonwastewater	June 8, 1989
K014	Wastewater	Aug 8, 1990
K014	Nonwastewater	June 8, 1989
K015	Wastewater	Aug 8, 1988
K015	Nonwastewater	Aug 8, 1990
K016	All	Aug 8, 1988
K017	All	Aug 8, 1990
K018	All	Aug 8, 1988
K019	All	Aug 8, 1988
K020	All	Aug 8, 1988
K021	Wastewater	Aug 8, 1990
K021	Nonwastewater	Aug 8, 1988
K022	Wastewater	Aug 8, 1990
K022	Nonwastewater	Aug 8, 1988
K023	All	June 8, 1989
K024	All	Aug 8, 1988
K025	Wastewater	Aug 8, 1990
K025	Nonwastewater	Aug 8, 1988
K026	All	Aug 8, 1990
K027	All	June 8, 1989
K028 (metals)	Nonwastewater	Aug 8, 1990
K028	All others	June 8, 1989
K029	Wastewater	Aug 8, 1990
K029	Nonwastewater	June 8, 1989
K030	All	Aug 8, 1988

K031	Wastewater	Aug 8, 1990
K031	Nonwastewater	May 8, 1992
K032	All	Aug 8, 1990
K033	All	Aug 8, 1990
K034	All	Aug 8, 1990
K035	All	Aug 8, 1990
K036	Wastewater	June 8, 1989
K036	Nonwastewater	Aug 8, 1988
K037	Wastewater	Aug 8, 1988
K037	Nonwastewater	Aug 8, 1988
K038	All	June 8, 1989
K039	All	June 8, 1989
K040	All	June 8, 1989
K041	All	Aug 8, 1990
K042	All	Aug 8, 1990
K043	All	June 8, 1989
K044	All	Aug 8, 1988
K045	All	Aug 8, 1988
K046 (Nonreactive)	Nonwastewater	Aug 8, 1988
K046	All others	Aug 8, 1990
K047	All	Aug 8, 1988
K048	Wastewater	Aug 8, 1990
K048	Nonwastewater	Nov 8, 1990
K049	Wastewater	Aug 8, 1990
K049	Nonwastewater	Nov 8, 1990
K050	Wastewater	Aug 8, 1990
K050	Nonwastewater	Nov 8, 1990
K051	Wastewater	Aug 8, 1990
K051	Nonwastewater	Nov 8, 1990
K052	Wastewater	Aug 8, 1990
K052	Nonwastewater	Nov 8, 1990
K060	Wastewater	Aug 8, 1990
K060	Nonwastewater	Aug 8, 1988
K061	Wastewater	Aug 8, 1990
K061	Nonwastewater	June 30, 1992
K062	All	Aug 8, 1988
K069 (Non-Calcium Sulfate)	Nonwastewater	Aug 8, 1988
K069	All others	Aug 8, 1990
K071	All	Aug 8, 1990
K073	All	Aug 8, 1990
K083	All	Aug 8, 1990
K084	Wastewater	Aug 8, 1990
K084	Nonwastewater	May 8, 1992
K085	All	Aug 8, 1990
K086 (organics)b	All	Aug 8, 1988
K086	All others	Aug 8, 1988
K087	All	Aug 8, 1988
K088	Mixed with radioactive waste	Apr 8, 1998
K088	All others	Oct 8, 1997
K093	All	June 8, 1989
K094	All	June 8, 1989
K095	Wastewater	Aug 8, 1990
K095	Nonwastewater	June 8, 1989
K096	Wastewater	Aug 8, 1990
K096	Nonwastewater	June 8, 1989
K097	All	Aug 8, 1990
K098	All	Aug 8, 1990
K099	All	Aug 8, 1988
K100	Wastewater	Aug 8, 1990
K100	Nonwastewater	Aug 8, 1988
K101 (organics)	Wastewater	Aug 8, 1988
K101 (metals)	Wastewater	Aug 8, 1990
K101 (organics)	Nonwastewater	Aug 8, 1988
K101 (metals)	Nonwastewater	May 8, 1992
K102 (organics)	Wastewater	Aug 8, 1988
K102 (metals)	Wastewater	Aug 8, 1990
K102 (organics)	Nonwastewater	Aug 8, 1988
K102 (metals)	Nonwastewater	May 8, 1992
K103	All	Aug 8, 1988
K104	All	Aug 8, 1988
K105	All	Aug 8, 1990

K106	Wastewater	Aug 8, 1990
K106	Nonwastewater	May 8, 1992
K107	Mixed with radioactive wastes	June 30, 1994
K107	All others	Nov 9, 1992
K108	Mixed with radioactive wastes	June 30, 1994
K108	All others	Nov 9, 1992
K109	Mixed with radioactive wastes	June 30, 1994
K109	All others	Nov 9, 1992
K110	Mixed with radioactive wastes	June 30, 1994
K110	All others	Nov 9, 1992
K111	Mixed with radioactive wastes	June 30, 1994
K111	All other	Nov 9, 1992
K112	Mixed with radioactive wastes	June 30, 1994
K112	All other	Nov 9, 1992
K113	All	June 8, 1989
K114	All	June 8, 1989
K115	All	June 8, 1989
K116	All	June 8, 1989
K117	Mixed with radioactive wastes	June 30, 1994
K117	All others	Nov 9, 1992
K118	Mixed with radioactive wastes	June 30, 1994
K118	All others	Nov 9, 1992
K123	Mixed with radioactive wastes	June 30, 1994
K123	All others	Nov 9, 1992
K124	Mixed with radioactive wastes	June 30, 1994
K124	All others	Nov 9, 1992
K125	Mixed with radioactive wastes	June 30, 1994
K125	All others	Nov 9, 1992
K126	Mixed with radioactive wastes	June 30, 1994
K126	All others	Nov 9, 1992
K131	Mixed with radioactive wastes	June 30, 1994
K131	All others	Nov 9, 1992
K132	Mixed with radioactive wastes	June 30, 1994
K132	All others	Nov 9, 1992
K136	Mixed with radioactive wastes	June 30, 1994
K136	All others	Nov 9, 1992
K141	Mixed with radioactive wastes	Sep 19, 1996
K141	All others	Dec 19, 1994
K142	Mixed with radioactive wastes	Sep 19, 1996
K142	All others	Dec 19, 1994
K143	Mixed with radioactive wastes	Sep 19, 1996
K143	All others	Dec 19, 1994
K144	Mixed with radioactive wastes	Sep 19, 1996
K144	All others	Dec 19, 1994
K145	Mixed with radioactive wastes	Sep 19, 1996
K145	All others	Dec 19, 1994
K147	Mixed with radioactive wastes	Sep 19, 1996
K147	All others	Dec 19, 1994
K148	Mixed with radioactive wastes	Sep 19, 1996
K148	All others	Dec 19, 1994
K149	Mixed with radioactive wastes	Sep 19, 1996
K149	All others	Dec 19, 1994
K150	Mixed with radioactive wastes	Sep 19, 1996
K150	All others	Dec 19, 1994
K151	Mixed with radioactive wastes	Sep 19, 1996
K151	All others	Dec 19, 1994
K156	Mixed with radioactive wastes	Apr 8, 1998
K156	All others	July 8, 1996
K157	Mixed with radioactive wastes	Apr 8, 1998
K157	All others	July 8, 1996
K158	Mixed with radioactive wastes	Apr 8, 1998
K158	All others	July 8, 1996
K159	Mixed with radioactive wastes	Apr 8, 1998
K159	All others	July 8, 1996
K160	Mixed with radioactive wastes	Apr 8, 1998
K160	All others	July 8, 1996
K161	Mixed with radioactive wastes	Apr 8, 1998
K161	All others	July 8, 1996
P001	All	Aug 8, 1990
P002	All	Aug 8, 1990
P003	All	Aug 8, 1990

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P004	All	Aug 8, 1990	P076	All	Aug 8, 1990
P005	All	Aug 8, 1990	P077	All	Aug 8, 1990
P006	All	Aug 8, 1990	P078	All	Aug 8, 1990
P007	All	Aug 8, 1990	P081	All	Aug 8, 1990
P008	All	Aug 8, 1990	P082	All	Aug 8, 1990
P009	All	Aug 8, 1990	P084	All	Aug 8, 1990
P010	Wastewater	Aug 8, 1990	P085	All	June 8, 1989
P010	Nonwastewater	May 8, 1992	P087	All	May 8, 1992
P011	Wastewater	Aug 8, 1990	P088	All	Aug 8, 1990
P011	Nonwastewater	May 8, 1992	P089	All	June 8, 1989
P012	Wastewater	Aug 8, 1990	P092	Wastewater	Aug 8, 1990
P012	Nonwastewater	May 8, 1992	P092	Nonwastewater	May 8, 1992
P013 (barium)	Nonwastewater	Aug 8, 1990	P093	All	Aug 8, 1990
P013	All	June 8, 1989	P094	All	June 8, 1989
P014	All	Aug 8, 1990	P095	All	Aug 8, 1990
P015	All	Aug 8, 1990	P096	All	Aug 8, 1990
P016	All	Aug 8, 1990	P097	All	June 8, 1989
P017	All	Aug 8, 1990	P098	All	June 8, 1989
P018	All	Aug 8, 1990	P099 (silver)	Wastewater	Aug 8, 1990
P020	All	Aug 8, 1990	P099	All others	June 8, 1989
P021	All	June 8, 1989	P101	All	Aug 8, 1990
P022	All	Aug 8, 1990	P102	All	Aug 8, 1990
P023	All	Aug 8, 1990	P103	All	Aug 8, 1990
P024	All	Aug 8, 1990	P104 (silver)	Wastewater	Aug 8, 1990
P026	All	Aug 8, 1990	P104	All others	June 8, 1989
P027	All	Aug 8, 1990	P105	All	Aug 8, 1990
P028	All	Aug 8, 1990	P106	All	June 8, 1989
P029	All	June 8, 1989	P108	All	Aug 8, 1990
P030	All	June 8, 1989	P109	All	June 8, 1989
P031	All	Aug 8, 1990	P110	All	Aug 8, 1990
P033	All	Aug 8, 1990	P111	All	June 8, 1989
P034	All	Aug 8, 1990	P112	All	Aug 8, 1990
P036	Wastewater	Aug 8, 1990	P113	All	Aug 8, 1990
P036	Nonwastewater	May 8, 1992	P114	All	Aug 8, 1990
P037	All	Aug 8, 1990	P115	All	Aug 8, 1990
P038	Wastewater	Aug 8, 1990	P116	All	Aug 8, 1990
P038	Nonwastewater	May 8, 1992	P118	All	Aug 8, 1990
P039	All	June 8, 1989	P119	All	Aug 8, 1990
P040	All	June 8, 1989	P120	All	Aug 8, 1990
P041	All	June 8, 1989	P121	All	June 8, 1989
P042	All	Aug 8, 1990	P122	All	Aug 8, 1990
P043	All	June 8, 1989	P123	All	Aug 8, 1990
P044	All	June 8, 1989	P127	Mixed with radioactive waste	Apr 8, 1998
P045	All	Aug 8, 1990	P127	All others	July 8, 1996
P046	All	Aug 8, 1990	P128	Mixed with radioactive wastes	Apr 8, 1998
P047	All	Aug 8, 1990	P128	All others	July 8, 1996
P048	All	Aug 8, 1990	P185	Mixed with radioactive wastes	Apr 8, 1998
P049	All	Aug 8, 1990	P185	All others	July 8, 1996
P050	All	Aug 8, 1990	P188	Mixed with radioactive wastes	Apr 8, 1998
P051	All	Aug 8, 1990	P188	All others	July 8, 1996
P054	All	Aug 8, 1990	P189	Mixed with radioactive wastes	Apr 8, 1998
P056	All	Aug 8, 1990	P189	All others	July 8, 1996
P057	All	Aug 8, 1990	P190	Mixed with radioactive wastes	Apr 8, 1998
P058	All	Aug 8, 1990	P190	All others	July 8, 1996
P059	All	Aug 8, 1990	P191	Mixed with radioactive wastes	Apr 8, 1998
P060	All	Aug 8, 1990	P191	All others	July 8, 1996
P062	All	June 8, 1989	P192	Mixed with radioactive wastes	Apr 8, 1998
P063	All	June 8, 1989	P192	All others	July 8, 1996
P064	All	Aug 8, 1990	P194	Mixed with radioactive wastes	Apr 8, 1998
P065	Wastewater	Aug 8, 1990	P194	All others	July 8, 1996
P065	Nonwastewater	May 8, 1992	P196	Mixed with radioactive wastes	Apr 8, 1998
P066	All	Aug 8, 1990	P196	All others	July 8, 1996
P067	All	Aug 8, 1990	P197	Mixed with radioactive wastes	Apr 8, 1998
P068	All	Aug 8, 1990	P197	All others	July 8, 1996
P069	All	Aug 8, 1990	P198	Mixed with radioactive wastes	Apr 8, 1998
P070	All	Aug 8, 1990	P198	All others	July 8, 1996
P071	All	June 8, 1989	P199	Mixed with radioactive wastes	Apr 8, 1998
P072	All	Aug 8, 1990	P199	All others	July 8, 1996
P073	All	Aug 8, 1990	P201	Mixed with radioactive wastes	Apr 8, 1998
P074	All	June 8, 1989	P201	All others	July 8, 1996
P075	All	Aug 8, 1990	P202	Mixed with radioactive wastes	Apr 8, 1998

P202	All others	July 8, 199	U069	All	June 30, 1992
P203	Mixed with radioactive wastes	Apr 8, 1998	U070	All	Aug 8, 1990
P203	All others	July 8, 1996	U071	All	Aug 8, 1990
P204	Mixed with radioactive wastes	Apr 8, 1998	U072	All	Aug 8, 1990
P204	All others	July 8, 1996	U073	All	Aug 8, 1990
P205	Mixed with radioactive wastes	Apr 8, 1998	U074	All	Aug 8, 1990
P205	All others	July 8, 1996	U075	All	Aug 8, 1990
U001	All	Aug 8, 1990	U076	All	Aug 8, 1990
U002	All	Aug 8, 1990	U077	All	Aug 8, 1990
U003	All	Aug 8, 1990	U078	All	Aug 8, 1990
U004	All	Aug 8, 1990	U079	All	Aug 8, 1990
U005	All	Aug 8, 1990	U080	All	Aug 8, 1990
U006	All	Aug 8, 1990	U081	All	Aug 8, 1990
U007	All	Aug 8, 1990	U082	All	Aug 8, 1990
U008	All	Aug 8, 1990	U083	All	Aug 8, 1990
U009	All	Aug 8, 1990	U084	All	Aug 8, 1990
U010	All	Aug 8, 1990	U085	All	Aug 8, 1990
U011	All	Aug 8, 1990	U086	All	Aug 8, 1990
U012	All	Aug 8, 1990	U087	All	June 8, 1989
U014	All	Aug 8, 1990	U088	All	June 8, 1989
U015	All	Aug 8, 1990	U089	All	Aug 8, 1990
U016	All	Aug 8, 1990	U090	All	Aug 8, 1990
U017	All	Aug 8, 1990	U091	All	Aug 8, 1990
U018	All	Aug 8, 1990	U092	All	Aug 8, 1990
U019	All	Aug 8, 1990	U093	All	Aug 8, 1990
U020	All	Aug 8, 1990	U094	All	Aug 8, 1990
U021	All	Aug 8, 1990	U095	All	Aug 8, 1990
U022	All	Aug 8, 1990	U096	All	Aug 8, 1990
U023	All	Aug 8, 1990	U097	All	Aug 8, 1990
U024	All	Aug 8, 1990	U098	All	Aug 8, 1990
U025	All	Aug 8, 1990	U099	All	Aug 8, 1990
U026	All	Aug 8, 1990	U101	All	Aug 8, 1990
U027	All	Aug 8, 1990	U102	All	June 8, 1989
U028	All	June 8, 1989	U103	All	Aug 8, 1990
U029	All	Aug 8, 1990	U105	All	Aug 8, 1990
U030	All	Aug 8, 1990	U106	All	Aug 8, 1990
U031	All	Aug 8, 1990	U107	All	June 8, 1989
U032	All	Aug 8, 1990	U108	All	Aug 8, 1990
U033	All	Aug 8, 1990	U109	All	Aug 8, 1990
U034	All	Aug 8, 1990	U110	All	Aug 8, 1990
U035	All	Aug 8, 1990	U111	All	Aug 8, 1990
U036	All	Aug 8, 1990	U112	All	Aug 8, 1990
U037	All	Aug 8, 1990	U113	All	Aug 8, 1990
U038	All	Aug 8, 1990	U114	All	Aug 8, 1990
U039	All	Aug 8, 1990	U115	All	Aug 8, 1990
U041	All	Aug 8, 1990	U116	All	Aug 8, 1990
U042	All	Aug 8, 1990	U117	All	Aug 8, 1990
U043	All	Aug 8, 1990	U118	All	Aug 8, 1990
U044	All	Aug 8, 1990	U119	All	Aug 8, 1990
U045	All	Aug 8, 1990	U120	All	Aug 8, 1990
U046	All	Aug 8, 1990	U121	All	Aug 8, 1990
U047	All	Aug 8, 1990	U122	All	Aug 8, 1990
U048	All	Aug 8, 1990	U123	All	Aug 8, 1990
U049	All	Aug 8, 1990	U124	All	Aug 8, 1990
U050	All	Aug 8, 1990	U125	All	Aug 8, 1990
U051	All	Aug 8, 1990	U126	All	Aug 8, 1990
U052	All	Aug 8, 1990	U127	All	Aug 8, 1990
U053	All	Aug 8, 1990	U128	All	Aug 8, 1990
U055	All	Aug 8, 1990	U129	All	Aug 8, 1990
U056	All	Aug 8, 1990	U130	All	Aug 8, 1990
U057	All	Aug 8, 1990	U131	All	Aug 8, 1990
U058	All	June 8, 1989	U132	All	Aug 8, 1990
U059	All	Aug 8, 1990	U133	All	Aug 8, 1990
U060	All	Aug 8, 1990	U134	All	Aug 8, 1990
U061	All	Aug 8, 1990	U135	All	Aug 8, 1990
U062	All	Aug 8, 1990	U136	Wastewater	Aug 8, 1990
U063	All	Aug 8, 1990	U136	Nonwastewater	May 8, 1992
U064	All	Aug 8, 1990	U137	All	Aug 8, 1990
U066	All	Aug 8, 1990	U138	All	Aug 8, 1990
U067	All	Aug 8, 1990	U140	All	Aug 8, 1990
U068	All	Aug 8, 1990	U141	All	Aug 8, 1990

U142	All	Aug 8, 1990	U217	All	Aug 8, 1990
U143	All	Aug 8, 1990	U218	All	Aug 8, 1990
U144	All	Aug 8, 1990	U219	All	Aug 8, 1990
U145	All	Aug 8, 1990	U220	All	Aug 8, 1990
U146	All	Aug 8, 1990	U221	All	June 8, 1989
U147	All	Aug 8, 1990	U222	All	Aug 8, 1990
U148	All	Aug 8, 1990	U223	All	June 8, 1989
U149	All	Aug 8, 1990	U225	All	Aug 8, 1990
U150	All	Aug 8, 1990	U226	All	Aug 8, 1990
U151	Wastewater	Aug 8, 1990	U227	All	Aug 8, 1990
U151	Nonwastewater	May 8, 1992	U228	All	Aug 8, 1990
U152	All	Aug 8, 1990	U234	All	Aug 8, 1990
U153	All	Aug 8, 1990	U235	All	June 8, 1989
U154	All	Aug 8, 1990	U236	All	Aug 8, 1990
U155	All	Aug 8, 1990	U237	All	Aug 8, 1990
U156	All	Aug 8, 1990	U238	All	Aug 8, 1990
U157	All	Aug 8, 1990	U239	All	Aug 8, 1990
U158	All	Aug 8, 1990	U240	All	Aug 8, 1990
U159	All	Aug 8, 1990	U243	All	Aug 8, 1990
U160	All	Aug 8, 1990	U244	All	Aug 8, 1990
U161	All	Aug 8, 1990	U246	All	Aug 8, 1990
U162	All	Aug 8, 1990	U247	All	Aug 8, 1990
U163	All	Aug 8, 1990	U248	All	Aug 8, 1990
U164	All	Aug 8, 1990	U249	All	Aug 8, 1990
U165	All	Aug 8, 1990	U271	Mixed with radioactive wastes	Apr 8, 1998
U166	All	Aug 8, 1990	U271	All others	July 8, 1996
U167	All	Aug 8, 1990	U277	Mixed with radioactive wastes	Apr 8, 1998
U168	All	Aug 8, 1990	U277	All others	July 8, 1996
U169	All	Aug 8, 1990	U278	Mixed with radioactive wastes	Apr 8, 1998
U170	All	Aug 8, 1990	U278	All others	July 8, 1996
U171	All	Aug 8, 1990	U279	Mixed with radioactive wastes	Apr 8, 1998
U172	All	Aug 8, 1990	U279	All others	July 8, 1996
U173	All	Aug 8, 1990	U280	Mixed with radioactive wastes	Apr 8, 1998
U174	All	Aug 8, 1990	U280	All others	July 8, 1996
U176	All	Aug 8, 1990	U328	Mixed with radioactive wastes	June 30, 1994
U177	All	Aug 8, 1990	U328	All others	Nov 9, 1992
U178	All	Aug 8, 1990	U353	Mixed with radioactive wastes	June 30, 1994
U179	All	Aug 8, 1990	U353	All others	Nov 9, 1992
U180	All	Aug 8, 1990	U359	Mixed with radioactive wastes	June 30, 1994
U181	All	Aug 8, 1990	U359	All others	Nov 9, 1992
U182	All	Aug 8, 1990	U364	Mixed with radioactive wastes	Apr 8, 1998
U183	All	Aug 8, 1990	U364	All others	July 8, 1996
U184	All	Aug 8, 1990	U365	Mixed with radioactive wastes	Apr 8, 1998
U185	All	Aug 8, 1990	U365	All others	July 8, 1996
U186	All	Aug 8, 1990	U366	Mixed with radioactive wastes	Apr 8, 1998
U187	All	Aug 8, 1990	U366	All others	July 8, 1996
U188	All	Aug 8, 1990	U367	Mixed with radioactive wastes	Apr 8, 1998
U189	All	Aug 8, 1990	U367	All others	July 8, 1996
U190	All	June 8, 1989	U372	Mixed with radioactive wastes	Apr 8, 1998
U191	All	Aug 8, 1990	U372	All others	July 8, 1996
U192	All	Aug 8, 1990	U373	Mixed with radioactive wastes	Apr 8, 1998
U193	All	Aug 8, 1990	U373	All others	July 8, 1996
U194	All	June 8, 1989	U375	Mixed with radioactive wastes	Apr 8, 1998
U196	All	Aug 8, 1990	U375	All others	July 8, 1996
U197	All	Aug 8, 1990	U376	Mixed with radioactive wastes	Apr 8, 1998
U200	All	Aug 8, 1990	U376	All others	July 8, 1996
U201	All	Aug 8, 1990	U377	Mixed with radioactive wastes	Apr 8, 1998
U202	All	Aug 8, 1990	U377	All others	July 8, 1996
U203	All	Aug 8, 1990	U378	Mixed with radioactive wastes	Apr 8, 1998
U204	All	Aug 8, 1990	U378	All others	July 8, 1996
U205	All	Aug 8, 1990	U379	Mixed with radioactive wastes	Apr 8, 1998
U206	All	Aug 8, 1990	U379	All others	July 8, 1996
U207	All	Aug 8, 1990	U381	Mixed with radioactive wastes	Apr 8, 1998
U208	All	Aug 8, 1990	U381	All others	July 8, 1996
U209	All	Aug 8, 1990	U382	Mixed with radioactive wastes	Apr 8, 1998
U210	All	Aug 8, 1990	U382	All others	July 8, 1996
U211	All	Aug 8, 1990	U383	Mixed with radioactive wastes	Apr 8, 1998
U213	All	Aug 8, 1990	U383	All others	July 8, 1996
U214	All	Aug 8, 1990	U384	Mixed with radioactive wastes	Apr 8, 1998
U215	All	Aug 8, 1990	U384	All others	July 8, 1996
U216	All	Aug 8, 1990	U385	Mixed with radioactive wastes	Apr 8, 1998

U385	All others	July 8, 1996
U386	Mixed with radioactive wastes	Apr 8, 1998
U386	All others	July 8, 1996
U387	Mixed with radioactive wastes	Apr 8, 1998
U387	All others	July 8, 1996
U389	Mixed with radioactive wastes	Apr 8, 1998
U389	All others	July 8, 1996
U390	Mixed with radioactive wastes	Apr 8, 1998
U390	All others	July 8, 1996
U391	Mixed with radioactive wastes	Apr 8, 1998
U391	All others	July 8, 1996
U392	Mixed with radioactive wastes	Apr 8, 1998
U392	All others	July 8, 1996
U393	Mixed with radioactive wastes	Apr 8, 1998
U393	All others	July 8, 1996
U394	Mixed with radioactive wastes	Apr 8, 1998
U394	All others	July 8, 1996
U395	Mixed with radioactive wastes	Apr 8, 1998
U395	All others	July 8, 1996
U396	Mixed with radioactive wastes	Apr 8, 1998
U396	All others	July 8, 1996
U400	Mixed with radioactive wastes	Apr 8, 1998
U400	All others	July 8, 1996
U401	Mixed with radioactive wastes	Apr 8, 1998
U401	All others	July 8, 1996
U402	Mixed with radioactive wastes	Apr 8, 1998
U402	All others	July 8, 1996
U403	Mixed with radioactive wastes	Apr 8, 1998
U403	All others	July 8, 1996
U404	Mixed with radioactive wastes	Apr 8, 1998
U404	All others	July 8, 1996
U407	Mixed with radioactive wastes	Apr 8, 1998
U407	All others	July 8, 1996
U409	Mixed with radioactive wastes	Apr 8, 1998
U409	All others	July 8, 1996
U410	Mixed with radioactive wastes	Apr 8, 1998
U410	All others	July 8, 1996
U411	Mixed with radioactive wastes	Apr 8, 1998
U411	All others	July 8, 1996

a This table does not include mixed radioactive wastes (from the First, Second, and Third Third rules) which received national capacity variance until May 8, 1992 This table also does not include contaminated soil and debris wastes
 b The standard was revised in the Third Third Final Rule (55 FR 22520, June 1, 1990)
 c The standard was revised in the Third Third Emergency Rule (58 FR 29860, May 24, 1993); the original effective date was August 8, 1990
 d The standard was revised in the Phase II Final Rule (59 FR 47982, Sept 19, 1994); the original effective date was August 8, 1990
 e The standards for selected reactive wastes was revised in the Phase III Final Rule (61 FR 15566, Apr 8, 1996); the original effective date was August 8, 1990

Table 2

Summary of Effective Dates of Land Disposal Restrictions for Contaminated Soil and Debris (CSD)

<u>Restricted Hazardous Waste in CSD</u>	<u>Effective Date:</u>
1 Solvent (F001-F005) and dioxin- (F020-F023 and F026-F024) containing soil and debris from CERCLA responses or RCRA corrective actions	Nov 8, 1990
2 Soil and debris not from CERCLA response or RCRA corrective actions contaminated with less than 1% total solvents(F001-F005) or dioxins (F020-F023 and F026-F024)	Nov 8, 1990
3 Soil and debris contaminated with California list HOCs from CERCLA responses or RCRA corrective actions	Nov 8, 1990
All soil and debris contaminated with First Third wastes for which treatment standards are based on incineration	Aug 8, 1990

4 All soil and debris contaminated with Second Third wastes for which treatment standards are based on incineration	June 8, 1991
5 All soil and debris contaminated with Third Third wastes or, First or Second Third "soft hammer" wastes which had treatment standards promulgated in the Third Third rule, for which treatment standards are based on incineration, vitrification, or mercury retorting, acid leaching followed by chemical precipitation, or thermal recovery of metals; as well as all inorganic solids debris contaminated with D004-D011 wastes, and all soil and debris contaminated with mixed RCRA/radioactive wastes	May 8, 1992
6 Soil and debris contaminated with D012-D043, K141- K145, and K147-151 wastes	Dec 19, 1994
7 Debris (only) contaminated with F037, F038, K107-K112, K117, K118, K123-K126, K131, K132, K136, U328, U353, U359	Dec 19, 1994
8 Soil and debris contaminated with K156-K161, P127, P128, P188-P192, P194, P196-P199, P201-P205, U271, U277-U280, U364-U367, U372, U373, U375-U379, U381-U387, U389-U396, U400-U404, U407, and U409-U411 wastes	July 8, 1996
9 Soil and debris contaminated with K088 wastes	Oct 8, 1997
10 Soil and debris contaminated with radioactive wastes mixed with K088, K156-K161, P127, P128, P188-P192, P194, P196-P199, P201-P205, U271, U277-U280, U364-U367, U372, U373, U375-U379, U381-U387, U389-U396, U400- U404, U407, and U409-U411 wastes	April 8, 1998
11 Soil and debris contaminated with F032, F034, and F035	May 12, 1997
12 Soil and debris contaminated with newly identified D004-D011 toxicity characteristic wastes and mineral processing wastes	Aug 24, 1998
13 Soil and debris contaminated with mixed radioactive newly identified D004-D011 characteristic wastes and mineral processing wastes	May 26, 2000

Note: Appendix VII is provided for the convenience of the reader

Appendix VIII to Section 268 — LDR Effective Dates of Injected Prohibited Hazardous Wastes

National Capacity LDR Variances for UIC Wastes^a

Waste code	Waste category	Effective date
F001-F005	All spent F001-F005 solvent containing less than 1 percent total F001-F005 solvent constituents	Aug 8, 1990
D001 (except High TOC Ignitable Liquids Subcategory) ^b	All	Feb 10, 1994
D001 (High TOC Characteristic Liquids Subcategory)	Nonwastewater	Sept 19, 1995

D002 ^b	All	May 8, 1992	K117	All	June 30, 1995
D002 ^c	All	Feb 10, 1994	K118	All	June 30, 1995
D003 (cyanides)	All	May 8, 1992	K123	All	Nov 9, 1992
D003 (sulfides)	All	May 8, 1992	K124	All	Nov 9, 1992
D003 (explosives, reactives)	All	May 8, 1992	K125	All	Nov 9, 1992
D007	All	May 8, 1992	K126	All	Nov 9, 1992
D009	Nonwastewater	May 8, 1992	K131	All	June 30, 1995
D012	All	Sept 19, 1995	K132	All	June 30, 1995
D013	All	Sept 19, 1995	K136	All	Nov 9, 1992
D014	All	Sept 19, 1995	K141	All	Dec 19, 1994
D015	All	Sept 19, 1995	K142	All	Dec 19, 1994
D016	All	Sept 19, 1995	K143	All	Dec 19, 1994
D017	All	Sept 19, 1995	K144	All	Dec 19, 1994
D018	All, including mixed with radioactive wastes	Apr 8, 1998	K145	All	Dec 19, 1994
D019	All, including mixed with radioactive wastes	Apr 8, 1998	K147	All	Dec 19, 1994
D020	All, including mixed with radioactive wastes	Apr 8, 1998	K148	All	Dec 19, 1994
D021	All, including mixed radioactive	Apr 8, 1998	K149	All	Dec 19, 1994
D022	All, including mixed radioactive	Apr 8, 1998	K150	All	Dec 19, 1994
D023	All, including mixed radioactive	Apr 8, 1998	K151	All	Dec 19, 1994
D024	All, including mixed radioactive	Apr 8, 1998	K156	All	July 8, 1996
D025	All, including mixed radioactive	Apr 8, 1998	K157	All	July 8, 1996
D026	All, including mixed radioactive	Apr 8, 1998	K158	All	July 8, 1996
D027	All, including mixed radioactive	Apr 8, 1998	K159	All	July 8, 1996
D028	All, including mixed radioactive	Apr 8, 1998	K160	All	July 8, 1996
D029	All, including mixed radioactive	Apr 8, 1998	K161	All	July 8, 1996
D030	All, including mixed radioactive	Apr 8, 1998	NA	Newly identified mineral processing wastes from titanium dioxide production and mixed radioactive/newly identified D004-D011 characteristic wastes and mineral processing wastes	May 26, 2000
D031	All, including mixed radioactive	Apr 8, 1998	P127	All	July 8, 1996
D032	All, including mixed radioactive	Apr 8, 1998	P128	All	July 8, 1996
D033	All, including mixed radioactive	Apr 8, 1998	P185	All	July 8, 1996
D034	All, including mixed radioactive	Apr 8, 1998	P188	All	July 8, 1996
D035	All, including mixed radioactive	Apr 8, 1998	P189	All	July 8, 1996
D036	All, including mixed radioactive	Apr 8, 1998	P190	All	July 8, 1996
D037	All, including mixed radioactive	Apr 8, 1998	P191	All	July 8, 1996
D038	All, including mixed radioactive	Apr 8, 1998	P192	All	July 8, 1996
D039	All, including mixed radioactive	Apr 8, 1998	P194	All	July 8, 1996
D040	All, including mixed radioactive	Apr 8, 1998	P196	All	July 8, 1996
D041	All, including mixed radioactive	Apr 8, 1998	P197	All	July 8, 1996
D042	All, including mixed radioactive	Apr 8, 1998	P198	All	July 8, 1996
D043	All, including mixed radioactive	Apr 8, 1998	P199	All	July 8, 1996
F007	All	June 8, 1991	P201	All	July 8, 1996
F032	All, including mixed radioactive	May 12, 1999	P202	All	July 8, 1996
F034	All, including mixed radioactive	May 12, 1999	P203	All	July 8, 1996
F035	All, including mixed radioactive	May 12, 1999	P204	All	July 8, 1996
F037	All	Nov 8, 1992	P205	All	July 8, 1996
F038	All	Nov 8, 1992	U271	All	July 8, 1996
F039	Wastewater	May 8, 1992	U277	All	July 8, 1996
K009	Wastewater	June 8, 1991	U278	All	July 8, 1996
K011	Nonwastewater	June 8, 1991	U279	All	July 8, 1996
K011	Wastewater	May 8, 1992	U280	All	July 8, 1996
K013	Nonwastewater	June 8, 1991	U328	All	Nov 9, 1992
K013	Wastewater	May 8, 1992	U353	All	Nov 9, 1992
K014	All	May 8, 1992	U359	All	Nov 9, 1992
K016 (dilute)	All	June 8, 1991	U364	All	July 8, 1996
K049	All	Aug 8, 1990	U365	All	July 8, 1996
K050	All	Aug 8, 1990	U366	All	July 8, 1996
K051	All	Aug 8, 1990	U367	All	July 8, 1996
K052	All	Aug 8, 1990	U372	All	July 8, 1996
K062	All	Aug 8, 1990	U373	All	July 8, 1996
K071	All	Aug 8, 1990	U375	All	July 8, 1996
K088	All	Jan 8, 1997	U376	All	July 8, 1996
K104	All	Aug 8, 1990	U377	All	July 8, 1996
K107	All	Nov 8, 1992	U378	All	July 8, 1996
K108	All	Nov 9, 1992	U379	All	July 8, 1996
K109	All	Nov 9, 1992	U381	All	July 8, 1996
K110	All	Nov 9, 1992	U382	All	July 8, 1996
K111	All	Nov 9, 1992			
K112	All	Nov 9, 1992			

U383	All	July 8, 1996
U384	All	July 8, 1996
U385	All	July 8, 1996
U386	All	July 8, 1996
U387	All	July 8, 1996
U389	All	July 8, 1996
U390	All	July 8, 1996
U391	All	July 8, 1996
U392	All	July 8, 1996
U395	All	July 8, 1996
U396	All	July 8, 1996
U400	All	July 8, 1996
U401	All	July 8, 1996
U402	All	July 8, 1996
U403	All	July 8, 1996
U404	All	July 8, 1996
U407	All	July 8, 1996
U409	All	July 8, 1996
U410	All	July 8, 1996
U411	All	July 8, 1996

(a) Wastes that are deep well disposed on-site receive a six-month variance, with restrictions effective in November 1990.
 (b) Deepwell injected D002 liquids with a pH less than 2 must meet the California List treatment standards on August 8, 1990
 (c) Managed in systems defined in 40 CFR 1446(e) and 146(e) as Class V injection wells, that do not engage in CWA-equivalent treatment before injection

Note: This table is provided for the convenience of the reader

Appendix IX to Section 268

See 40 CFR 268, Appendix IX

Appendix XI to Part 268 — Metal Bearing Wastes Prohibited From Dilution in a Combustion Unit According to 40 CFR 268.3(c)¹

1 A combustion unit is defined as any thermal technology subject to Section 264, subsection part O; Section 265, subsection O; and/or 266, subsection H

Waste code	Waste description
D004	Toxicity Characteristic for Arsenic
D005	Toxicity Characteristic for Barium
D006	Toxicity Characteristic for Cadmium
D007	Toxicity Characteristic for Chromium
D008	Toxicity Characteristic for Lead
D009	Toxicity Characteristic for Mercury
D010	Toxicity Characteristic for Selenium
D011	Toxicity Characteristic for Silver
F006	Wastewater treatment sludges from electroplating operations except from the following processes: (1) sulfuric acid anodizing of aluminum; (2) tin plating carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and (6) chemical etching and milling of aluminum
F007	Spent cyanide plating bath solutions from electroplating operations
F008	Plating bath residues from the bottom of plating baths from electroplating operations where

F009	cyanides are used in the process Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process
F010	Quenching bath residues from oil baths from metal treating operations where cyanides are used in the process
F011	Spent cyanide solutions from salt bath pot cleaning from metal heat treating operations
F012	Quenching waste water treatment sludges from metal heat treating operations where cyanides are used in the process
F019	Wastewater treatment sludges from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum car washing when such phosphating is an exclusive conversion coating process
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments
K003	Wastewater treatment sludge from the production of molybdate orange pigments
K004	Wastewater treatment sludge from the production of zinc yellow pigments
K005	Wastewater treatment sludge from the production of chrome green pigments
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated)
K007	Wastewater treatment sludge from the production of iron blue pigments
K008	Oven residue from the production of chrome oxide green pigments
K061	Emission control dust/sludge from the primary production of steel in electric furnaces
K069	Emission control dust/sludge from secondary lead smelting
K071	Brine purification muds from the mercury cell processes in chlorine production, where separately prepurified brine is not used
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting
K106	Sludges from the mercury cell processes or making chlorine
P010	Arsenic acid H ₃ AsO ₄
P011	Arsenic oxide As ₂ O ₅
P012	Arsenic trioxide
P013	Barium cyanide
P015	Beryllium
P029	Copper cyanide Cu(CN)
P074	Nickel cyanide Ni(CN) ₂
P087	Osmium tetroxide
P099	Potassium silver cyanide
P104	Silver cyanide
P113	Thallic oxide
P114	Thallium (I) selenite
P115	Thallium (I) sulfate
P119	Ammonium vanadate
P120	Vanadium oxide V ₂ O ₅
P121	Zinc cyanide
U032	Calcium chromate
U145	Lead phosphate
U151	Mercury
U204	Selenious acid
U205	Selenium disulfide
U216	Thallium (I) chloride
U217	Thallium (I) nitrate

Section 270.

ADMINISTERED PERMIT PROGRAMS: THE HAZARDOUS WASTE PERMIT PROGRAM

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Subsection A -- General Information

§ 270.1 Purpose and scope of these regulations.

(a) Coverage. (1) These permit regulations establish provisions for the Hazardous Waste Permit Program under Subtitle C of the federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act of 1976, as amended (RCRA), (Pub. L. 94-580, as amended by Pub. L. 95-609 and by Pub. L. 96-482; 42 U.S.C. 6091 et seq.). They apply to EPA and to approved States to the extent

provided in 40 CFR part 271.

(2) The regulations in this Section cover basic State and federal permitting requirements, such as application requirements, standard permit conditions, and monitoring and reporting requirements. These regulations are part of a regulatory scheme implementing the Arkansas Hazardous Waste Management Act and the federal RCRA set forth in different parts of this document and the Code of Federal Regulations. The following chart indicates where the regulations implementing RCRA appear in the CFR and this Regulation.

Section of RCRA; Coverage	Final regulation
Subtitle C Overview and definitions.	40 CFR part 260; Reg 23 § 260
3001; Identification and listing of hazardous waste.	40 CFR part 261; Reg 23 § 261
3002; Generators of hazardous waste.	40 CFR part 262; Reg 23 § 262
3003; Transporters of hazardous waste.	40 CFR part 263; Reg 23 § 263
3004; Standards for HWM facilities	40 CFR parts 264, 265, 266, and 267; Reg 23 §§ 264, 265, and 266
3005; Permit requirements for HWM facilities.	40 CFR parts 270 and 124; Reg 23 §270, and Reg No. 8
3006; Guidelines for State programs	40 CFR part 271
3010 Preliminary notification of HWM activity.	(public notice) 45 FR 12746 February 26, 1980; Reg 23 § 262

(3) Technical regulations. The Hazardous Waste Management (hereafter HWM) permit program has separate additional Regulations that contain technical requirements. These separate regulations are used by permit issuing authorities to determine what requirements must be placed in permits if they are issued. These separate regulations are located in Sections 264 and 266 of this regulation, and at 40 CFR parts 264, 266, and 267.

(b) Overview of the HWM Permit Program. Not later than 90 days after the promulgation or revision of regulations in Section 261 of this regulation (identifying and listing hazardous wastes) generators and transporters of hazardous waste, and owners or operators of hazardous waste treatment, storage, or disposal facilities may be required to file a notification of that activity under RCRA section 3010. Treatment, storage, and disposal facilities (TSDs) that are otherwise subject to permitting under RCRA and that meet the criteria in paragraph (b)(1), or paragraph (b)(2) of this section, may be eligible for a standardized permit under Subsection J of this Section. Six months after the initial promulgation of the Section 261 regulations, treatment, storage, or disposal of hazardous waste by any person who has not applied for or received an HWM permit is prohibited. An HWM permit application consists of two parts, *Part A* (see § 270.13) and *Part B* (see § 270.14 and applicable sections in §§ 270.15 through 270.29). For “existing HWM facilities,” the requirement to submit an application is satisfied by submitting only Part A of the permit application until the

date the Director sets for submitting Part B of the application. (Part A consists of Forms 1 and 3 of the Consolidated Permit Application Forms.) Timely submission of both notification under section 3010 and Part A qualifies owners and operators of existing HWM facilities (who are required to have a permit) for interim status under the Arkansas Hazardous Waste Management Act (A.C.A. §§ 8-7-201 *et seq.*) Facility owners and operators with interim status are treated as having been issued a permit until EPA or a State with either interim authorization for Phase II or final authorization under 40 CFR part 271 makes a final determination on the permit application. Facility owners and operators with interim status must comply with interim status standards set forth at 40 CFR part 265 and 266 or with the analogous provisions at Sections 265 and 266 of this Regulation. Facility owners and operators with interim status are not relieved from complying with other State requirements. For existing HWM facilities, the Director shall set a date, giving at least six months notice, for submission of Part B of the application. There is no form for Part B of the application; rather, Part B must be submitted in narrative form and contain the information set forth in the applicable sections of §§ 270.14 through 270.29. Owners or operators of new HWM facilities must submit parts A and B of the permit application at least 180 days before physical construction is expected to commence.

(1) The facility generates hazardous waste and then non-thermally treats or stores hazardous waste on-site in tanks, containers, or containment buildings; or

(2) The facility receives hazardous waste generated off-site by a generator under the same ownership as the receiving facility, and then stores or non-thermally treats the hazardous waste in containers, tanks, or containment buildings.

(c) Scope of the RCRA permit requirement. RCRA requires a permit for the “treatment,” “storage,” and “disposal” of any “hazardous waste” as identified or listed in § 261 of this regulation. The terms “treatment,” “storage,” “disposal,” and “hazardous waste” are defined in § 270.2. Owners and operators of hazardous waste management units must have permits during the active life (including the closure period) of the unit. Owners and operators of surface impoundments, landfills, land treatment units, and waste pile units that received waste after July 26, 1982, or that certified closure (according to § 265.115 of this regulation) after January 26, 1983, must have post-closure permits, unless they demonstrate closure by removal or decontamination as provided under § 270.1(c)(5) and (6), or obtain an enforceable document in lieu of a post-closure permit, as provided under paragraph (c)(7) of this section. If a post-closure permit is required, the permit must address applicable Section 264 groundwater monitoring, unsaturated zone monitoring, corrective action, and post-closure care requirements of this chapter. The denial of a permit for the active life of a hazardous waste management facility or unit does not affect the requirement to obtain a post-closure permit under this section.

(1) Specific inclusions. Owners and operators of

certain facilities require HWM permits as well as permits under other programs for certain aspects of the facility operation. HWM permits are required for:

(i) Injection wells that dispose of hazardous waste, and associated surface facilities that treat, store or dispose of hazardous waste, (See § 270.64). However, the owner and operator with a UIC permit in a State with an approved or promulgated UIC program, will be deemed to have an HWM permit for the injection well itself if they comply with the requirements of § 270.60(b) (permit-by-rule for injection wells).

(ii) Treatment, storage, or disposal of hazardous waste at facilities requiring an NPDES permit. However, the owner and operator of a publicly owned treatment works receiving hazardous waste will be deemed to have an HWM permit for that waste if they comply with the requirements of § 270.60(c) (permit-by-rule for POTWs).

(iii) Barges or vessels that dispose of hazardous waste by ocean disposal and onshore hazardous waste treatment or storage facilities associated with an ocean disposal operation. However, the owner and operator will be deemed to have an HWM permit for ocean disposal from the barge or vessel itself if they comply with the requirements of § 270.60(a) (permit-by-rule for ocean disposal barges and vessels).

(2) Specific exclusions. The following persons are among those who are not required to obtain an HWM permit:

(i) Generators who accumulate hazardous waste on-site for less than the time periods provided in § 262.34 (40 CFR 262.34). Tank and container requirements provided in Subsections I and J of Sections 264 and 265 of this regulation will continue to apply regardless of whether storage, treatment, or both storage and treatment occur. *Generators must be in full compliance with all time frames and technical requirements provided in § 262.34 of this Regulation in order to utilize the on-site treatment exemption for generators.*

(ii) Farmers who dispose of hazardous waste pesticides from their own use as provided in § 262.70 of this regulation;

(iii) Persons who own or operate facilities solely for the treatment, storage or disposal of hazardous waste excluded from regulations under this section by § 261.4 or 261.5 (small generator exemption).

(iv) Owners or operators of totally enclosed treatment facilities as defined in § 260.10.

(v) Owners and operators of elementary neutralization units or wastewater treatment units as defined in § 260.10.

(vi) Transporters storing manifested shipments of hazardous waste in containers meeting the requirements of § 262.30 at a transfer facility for a period of ten days or less.

(vii) Persons adding absorbent material to waste in a container (as defined in § 260.10 of this regulation) and persons adding waste to absorbent material in a container, provided that these actions occur at the time waste is first placed in the container; and §§ 264.17(b), 264.171, and 264.172 of this regulation are complied with.

(viii) Universal waste handlers and universal waste transporters (as defined in § 260.10) managing the wastes listed below. These handlers are subject to regulation under § 273.

- (A) Batteries as described in § 273.2;
- (B) Pesticides as described in § 273.3 of this regulation;
- (C) Mercury-containing devices as described in § 273.4 of this regulation;
- (D) Lamps as described in § 273.5 of this regulation; and
- (E) *Consumer electronic items as described in § 273.6 of this regulation.*

(3) Further exclusions. (i) A person is not required to obtain a HWM permit for treatment or containment activities taken during immediate response to any of the following situations:

- (A) A discharge of a hazardous waste;
- (B) An imminent and substantial threat of a discharge of hazardous waste;
- (C) A discharge of a material which, when discharged, becomes a hazardous waste.
- (D) An immediate threat to human health, public safety, property, or the environment from the known or suspected presence of military munitions, other explosive material, or an explosive device, as determined by an explosive or munitions emergency response specialist as defined in § 260.10.

(ii) Any person who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of this part for those activities.

(iii) In the case of emergency responses involving military munitions, the responding military emergency response specialist's organizational unit must retain records for three years identifying the dates of the response, the responsible persons responding,

the type and description of material addressed, and its disposition.

(4) Permits for less than an entire facility. ADEQ may issue or deny a permit for one or more units at a facility without simultaneously issuing or denying a permit to all of the units at the facility. The interim status of any unit for which a permit has not been issued or denied is not affected by the issuance or denial of a permit to any other unit at the facility.

(5) Closure by removal. Owners/operators of surface impoundments, land treatment units, and waste piles closing by removal or decontamination under Section 265 standards must obtain a post-closure permit unless they can demonstrate to the Director that the closure met the standards for closure by removal or decontamination in § 264.228, § 264.280(e), or § 264.258, respectively. The demonstration may be made in the following ways:

(i) If the owner/operator has submitted a Part B application for a post-closure permit, the owner/operator may request a determination, based on information contained in the application, that Section 264 closure by removal standards were met. If the Director believes that Section 264 standards were met, he/she will notify the public of this proposed decision, allow for public comment, and reach a final determination according to the procedures in paragraph (c)(6) of this section.

(ii) If the owner/operator has not submitted a Part B application for a post-closure permit, the owner/operator may petition the Director for a determination that a post-closure permit is not required because the closure met the applicable Section 264 closure standards.

(A) The petition must include data demonstrating that closure by removal or decontamination standards were met, or it must demonstrate that the unit closed under State requirements that met or exceeded the applicable Section 264 closure-by-removal standard.

(B) The Director shall approve or deny the petition according to the procedures outlined in paragraph (c)(6) of this section.

(6) Procedures for closure equivalency determination. (i) If a facility owner/operator seeks an equivalency demonstration under § 270.1(c)(5), the Director will provide the public, through a newspaper notice, the opportunity to submit written comments on the information submitted by the owner/operator within 30 days from the date of the notice. The Director will also, in response to a request or at his/her own discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning the equivalence of the Section 265 closure to a Section 264 closure. The

Director will give public notice of the hearing at least 30 days before it occurs. (Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments, and the two notices may be combined.)

(ii) The Director will determine whether the Section 264 closure met Section 264 closure by removal or decontamination requirements within 90 days of its receipt. If the Director finds that the closure did not meet the applicable Section 264 standards, he/she will provide the owner/operator with a written statement of the reasons why the closure failed to meet these standards. The owner/operator may submit additional information in support of an equivalency demonstration within 30 days after receiving such written statement. The Director will review any additional information submitted and make a final determination within 60 days.

(iii) If the Director determines that the facility did not close in accordance with Section 264 closure by removal standards, the facility is subject to post-closure permitting requirements.

(7) Enforceable documents for post-closure care. At the discretion of the Director, an owner or operator may obtain, in lieu of a post-closure permit, an enforceable document imposing the requirements of § 265.121. "Enforceable document" means an order, a plan, or other document issued by EPA or by the Department under an authority that meets the requirements of 40 CFR 271.16(e) including, but not limited to, a corrective action order issued by EPA under section 3008(h), a CERCLA remedial action, or a closure or post-closure plan.

§ 270.2 Definitions.

The following definitions apply to Section 270. Terms not defined in this section have the meaning given by Section 260.10.

"**Administrator**" means the Administrator of the United States Environmental Protection Agency, or an authorized representative.

"**Application**" means the EPA standard national forms for applying for a permit, including any additions, revisions or modifications to the forms; or forms approved by EPA for use in approved States, including any approved modifications or revisions. Application also includes the information required by the Director under §§ 270.14 through 270.29 (contents of Part B of the hazardous waste permit application).

"**Approved program** or **approved State**" means a State which has been approved or authorized by EPA under 40 CFR part 271.

"**Aquifer**" means a geological formation, group of

formations, or part of a formation that is capable of yielding a significant amount of water to a well or spring.

"**Closure**" means the act of securing a Hazardous Waste Management facility pursuant to the requirements of Section 264 of this regulation.

"**Component**" means any constituent part of a unit or any group of constituent parts of a unit which are assembled to perform a specific function (e.g., a pump seal, pump, kiln liner, kiln thermocouple).

"**Corrective Action Management Unit**" or "**CAMU**" means an area within a facility that is designated by the Director under § 264 Subsection S for the purpose of implementing corrective action requirements under § 264.101, or the Arkansas Remedial Action Trust Fund Act. A CAMU shall only be used for the management of remediation wastes pursuant to implementing such corrective action requirements at the facility.

"**CWA**" means the federal Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act amendments of 1972) Pub. L. 92-500, as amended by Pub. L. 92-217 and Pub. L. 95-576; 33 U.S.C. 1251 et seq.

"**Director**" means the Director of the Arkansas Department of Pollution Control and Ecology, or an authorized representative. When the Department has not yet received federal authorization for a particular rule and there is an EPA administered program, Director means the Regional Administrator. When there is an approved State program, Director normally means the State Director. In some circumstances, however, EPA retains the authority to take certain actions even when there is an approved State program. In such cases, the term Director means the Regional Administrator and not the State Director.

"**Disposal**" means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any hazardous waste into or on any land or water so that such hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground water.

"**Disposal facility**" means a facility or part of a facility at which hazardous waste is intentionally placed into or on the land or water, and at which hazardous waste will remain after closure. The term *disposal facility* does not include a corrective action management unit into which remediation wastes are placed.

"**Draft permit**" means a document prepared under 40 CFR 124.6 indicating the Director's tentative decision to issue or deny, modify, revoke and reissue, terminate, or reissue a permit. A notice of intent to terminate a permit, and a notice of intent to deny a permit, as discussed in § 124.5, are types of draft permits. A denial of a request for modification, revocation and reissuance, or termination, as discussed in § 124.5 is not a "draft permit." A proposed permit is not a draft permit.

"**Elementary neutralization unit**" means a device which:

(a) Is used for neutralizing wastes only because they

exhibit the corrosivity characteristic defined in § 261.22 of this regulation, or are listed in Subsection D of Section 261 of this regulation only for this reason; and

(b) Meets the definition of tank, tank system, container, transport vehicle, or vessel in § 260.10 of this regulation.

“**Emergency permit**” means an HWM permit issued in accordance with § 270.61.

“**Environmental Protection Agency (EPA)**” means the United States Environmental Protection Agency.

“**EPA**” means the United States Environmental Protection Agency.

“**Facility mailing list**” means the mailing list for a facility maintained by the Department in accordance with 40 CFR 124.10(c)(1)(ix) and § 270.7 of this regulation.

“**Facility or activity**” means any HWM facility or any other facility or activity (including land or appurtenances thereto) that is subject to regulation under the RCRA program.

“**Federal, State and local approvals or permits necessary to begin physical construction**” means permits and approvals required under Federal, State or local hazardous waste control statutes, regulations or ordinances.

“**Final authorization**” means approval by EPA of a State program which has met the requirements of section 3006(b) of RCRA and the applicable requirements of 40 CFR Part 271, Subpart A.

“**Functionally equivalent component**” means a component which performs the same function or measurement and which meets or exceeds the performance specifications of another component.

“**Generator**” means any person, by site location, whose act, or process produces “hazardous waste” identified or listed in Section 261 of this regulation.

“**Ground water**” means water below the land surface in a zone of saturation.

“**Hazardous Waste Management Facility (HWM facility)**” means all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (for example, one or more landfills, surface impoundments, or combinations of them).

“**HWM facility**” means Hazardous Waste Management facility.

“**Injection well**” means a well into which fluids are being injected.

“**In operation**” means a facility which is treating, storing, or disposing of hazardous waste.

“**Interim authorization**” means approval by EPA of a State hazardous waste program which has met the requirements of section 3006(g)(2) of RCRA and applicable requirements of 40 CFR part 271, subpart B.

“**Major facility**” means any facility or activity classified as such by the Director, or, in the case of approved State programs, the Director in conjunction with the State Director.

“**Manifest**” means the shipping document originated and signed by the generator which contains the information required by Subsection B of Section 262.

“**National Pollutant Discharge Elimination System**” means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the federal Clean Water Act. The term includes an approved program.

“**NPDES**” means National Pollutant Discharge Elimination System.

“**New HWM facility**” means a Hazardous Waste Management facility which began operation or for which construction commenced after November 19, 1980.

“**Off-site**” means any site which is not on-site.

“**On-site**” means on the same or geographically contiguous property which may be divided by public or private right(s)-of-way, provided the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing as opposed to going along, the right(s)-of-way. Non-contiguous properties owned by the same person but connected by a right-of-way which the person controls and to which the public does not have access, is also considered on-site property.

“**Permit**” means an authorization, license, or equivalent control document issued by EPA or an approved State to implement the requirements of this Section and 40 CFR Parts 271 and 124. Permit includes permit by rule (§ 270.60), emergency permit (§ 270.61) and standardized permit (subsection J of this section). Permit does not include RCRA interim status (subsection G of this section), or any permit which has not been the subject of final agency action, such as a draft permit or a proposed permit.

“**Permit-by-rule**” means a provision of these regulations stating that a facility or activity is deemed to have an HWM permit if it meets the requirements of the provision.

“**Phase I**” means that phase of the Federal hazardous waste management program commencing on the effective date of the last of the following to be initially promulgated: 40 CFR Parts 260, 261, 262, 263, 265, 270 and 271. Promulgation of Phase I refers to promulgation of the regulations necessary for Phase I to begin.

“**Phase II**” means that phase of Federal hazardous waste management program commencing on the effective date of the first subpart of 40 CFR part 264, subparts F through R to be initially promulgated. Promulgation of Phase II refers to promulgation of the regulations necessary for Phase II to begin.

“**Physical construction**” means excavation, movement of earth, erection of forms or structures, or similar activity to prepare an HWM facility to accept hazardous waste.

“**POTW**” means publicly owned treatment works.

“**Publicly owned treatment works (POTW)**” means any device or system used in the treatment (including recycling and reclamation) of municipal sewage or industrial wastes of a liquid nature which is owned by a State or municipality. This definition includes sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

“**RCRA**” means the federal Solid Waste Disposal Act as

amended by the Resource Conservation and Recovery Act of 1976 (Pub. L. 94-580, as amended by Pub. L. 95-609 and Pub. L. 96-482, 42 U.S.C. 6901 et seq.)

“**Regional Administrator**” means the Regional Administrator of the appropriate Regional Office of the Environmental Protection Agency [EPA Region VI] or the authorized representative of the Regional Administrator.

“**Remedial Action Plan**” (RAP) means a special form of RCRA permit that a facility owner or operator may obtain instead of a permit issued under §§ 270.3 through 270.66, to authorize the treatment, storage or disposal of hazardous remediation waste (as defined in § 260.10 of this regulation) at a remediation waste management site.

“**Schedule of compliance**” means a schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (for example, actions, operations, or milestone events) leading to compliance with the Act and regulations.

“**SDWA**” means the federal Safe Drinking Water Act (Pub. L. 95-523, as amended by Pub. L. 95-1900; 42 U.S.C. 3001 et seq.).

“**Standardized permit**” means a RCRA permit issued under 40 CFR Part 124, subsection G, Regulation No. 8, and Subsection J of this Section authorizing the facility owner or operator to manage hazardous waste. The standardized permit may have two parts: a uniform portion issued in all cases and a supplemental portion issued at the Director’s discretion.

“**State**” means any of the 50 States, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the Virgin Islands, American Samoa, and the Commonwealth of the Northern Mariana Islands.

“**State Director**” means the chief administrative officer of any State agency operating an approved program, or the delegated representative of the State Director. If responsibility is divided among two or more State agencies, State Director means the chief administrative officer of the State agency authorized to perform the particular procedure or function to which reference is made.

“**State/EPA Agreement**” means an agreement between the Regional Administrator and the Arkansas Department of Pollution Control and Ecology which coordinates EPA and State activities, responsibilities and programs.

“**Storage**” means the holding of hazardous waste for a temporary period, at the end of which the hazardous waste is treated, disposed, or stored elsewhere.

“**Transfer facility**” means any transportation-related facility including loading docks, parking areas, storage areas and other similar areas where shipments of hazardous waste are held during the normal course of transportation.

“**Transporter**” means a person engaged in the off-site transportation of hazardous waste by air, rail, highway or water.

“**Treatment**” means any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such wastes, or so as to

recover energy or material resources from the waste, or so as to render such waste non-hazardous, or less hazardous; safer to transport, store, or dispose of; or amenable for recovery, amenable for storage, or reduced in volume.

“**UIC**” means the Underground Injection Control Program under Part C of the federal Safe Drinking Water Act, including an approved program.

“**Underground injection**” means a well injection.

“**Underground source of drinking water (USDW)**” means an aquifer or its portion:

- (a)(1) Which supplies any public water system; or
- (2) Which contains a sufficient quantity of ground water to supply a public water system; and
 - (i) Currently supplies drinking water for human consumption; or
 - (ii) Contains fewer than 10,000 mg/l total dissolved solids; and
- (b) Which is not an exempted aquifer.

“**USDW**” means underground source of drinking water.

“**Wastewater treatment unit**” means a device which:

- (a) Is part of a wastewater treatment facility which is subject to regulation under either section 402 or 307(b) of the federal Clean Water Act; and
- (b) Receives and treats or stores an influent wastewater which is a hazardous waste as defined in § 261.3 of this regulation, or generates and accumulates a wastewater treatment sludge which is a hazardous waste as defined in § 261.3 of this regulation, or treats or stores a wastewater treatment sludge which is a hazardous waste as defined in § 261.3 of this regulation; and
- (c) Meets the definition of tank or tank system in § 260.10 of this regulation.

§ 270.3 Considerations under Federal law.

The following is a list of Federal laws that may apply to the issuance of permits under these rules. When any of these laws is applicable, its procedures must be followed. When the applicable law requires consideration or adoption of particular permit conditions or requires the denial of a permit, those requirements also must be followed.

(a) *The Wild and Scenic Rivers Act*. 16 U.S.C. 1273 et seq. Section 7 of the Act prohibits the Regional Administrator or Director from assisting by license or otherwise the construction of any water resources project that would have a direct, adverse effect on the values for which a national wild and scenic river was established.

(b) *The National Historic Preservation Act of 1966*. 16 U.S.C. 470 et seq. Section 106 of the Act and implementing regulations (36 CFR part 800) require the Regional Administrator or Director, before issuing a license, to adopt measures when feasible to mitigate potential adverse effects of the licensed activity and properties listed or eligible for listing in the National Register of Historic Places. The Act’s requirements are to be implemented in cooperation with State Historic Preservation Officers and upon notice to, and

when appropriate, in consultation with the Advisory Council on Historic Preservation.

(c) *The Endangered Species Act*. 16 U.S.C. 1531 et seq. Section 7 of the Act and implementing regulations (50 CFR part 402) require the Regional Administrator or Director to ensure, in consultation with the Secretary of the Interior or Commerce, that any action authorized by EPA or the Department is not likely to jeopardize the continued existence of any endangered or threatened species or adversely affect its critical habitat.

(d) *The Coastal Zone Management Act*. 16 U.S.C. 1451 et seq. Section 307(c) of the Act and implementing regulations (15 CFR part 930) prohibit EPA or the Department from issuing a permit for an activity affecting land or water use in the coastal zone until the applicant certifies that the proposed activity complies with the State Coastal Zone Management program, and the State or its designated agency concurs with the certification (or the Secretary of Commerce overrides the State's nonconcurrence).

(e) *The Fish and Wildlife Coordination Act*. 16 U.S.C. 661 et seq. requires that the Regional Administrator or Director, before issuing a permit proposing or authorizing the impoundment (with certain exemptions), diversion, or other control or modification of any body of water, consult with the appropriate State agency exercising jurisdiction over wildlife resources to conserve those resources.

(f) Executive orders. [Reserved]

§ 270.4 Effect of a permit.

(a) Compliance with an HWM permit during its term constitutes compliance, for purposes of enforcement, with subtitle C of RCRA except for those requirements not included in the permit which:

- (1) Become effective by statute;
- (2) Are promulgated under Section 268 of this regulation or 40 CFR Part 268 restricting the placement of hazardous wastes in or on the land; or
- (3) Are promulgated under Section 264 of this regulation regarding leak detection systems for new and replacement surface impoundment, waste pile, and landfill units, and lateral expansions of surface impoundment, waste pile, and landfill units. The leak detection system requirements include double liners, CQA programs, monitoring, action leakage rates, and response action plans, and will be implemented through the procedures of § 270.42 Class 1* permit modifications.
- (4) Are promulgated under Subsections AA, BB, or CC of Section 265 of this Regulation limiting air emissions.

(b) The issuance of a permit does not convey any property rights of any sort, or any exclusive privilege.

(c) The issuance of a permit does not authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations.

§ 270.5 Noncompliance and program reporting by the Director.

The Director shall prepare quarterly and annual reports as detailed below. When the State is the permit-issuing authority, the Director shall submit any reports required under this section to the Regional Administrator. When EPA is the permit-issuing authority, the Regional Administrator shall submit any report required under this section to EPA Headquarters. For purposes of this section only, HWM permittees shall include interim status facilities, when appropriate.

(a) Quarterly reports. The Director shall submit quarterly narrative reports for major facilities as follows:

(1) Format. The report shall use the following format:

- (i) Information on noncompliance for each facility;
- (ii) Alphabetize by permittee name. When two or more permittees have the same name, the lowest permit number shall be entered first;
- (iii) For each entry on the list, include the following information in the following order:
 - (A) Name, location, and permit number of the noncomplying permittee.
 - (B) A brief description and date of each instance of noncompliance for that permittee. Instances of noncompliance may include one or more of the kinds set forth in paragraph (a)(2) of this section. When a permittee has noncompliance of more than one kind, combine the information into a single entry for each such permittee.
 - (C) The date(s) and a brief description of the action(s) taken by the Director to ensure compliance.
 - (D) Status of the instance(s) of noncompliance with the date of the review of the status or the date of resolution.
 - (E) Any details which tend to explain or mitigate the instance(s) of noncompliance.

(2) Instances of noncompliance to be reported. Any instances of noncompliance within the following categories shall be reported in successive reports until the noncompliance is reported as resolved. Once noncompliance is reported as resolved it need not appear in subsequent reports.

- (i) Failure to complete construction elements. When the permittee has failed to complete, by the date specified in the permit, an element of a compliance schedule involving either planning for construction (for example, award of a contract, preliminary plans), or a construction step (for example, begin construction, attain operation level); and the permittee has not returned to compliance by accomplishing the required element of the

schedule within 30 days from the date a compliance schedule report is due under the permit.

(ii) Modifications to schedules of compliance. When a schedule of compliance in the permit has been modified under § 270.41 or § 270.42 because of the permittee's noncompliance.

(iii) Failure to complete or provide compliance schedule or monitoring reports. When the permittee has failed to complete or provide a report required in a permit compliance schedule (for example, progress report or notice of noncompliance or compliance) or a monitoring report; and the permittee has not submitted the complete report within 30 days from the date it is due under the permit for compliance schedules, or from the date specified in the permit for monitoring reports.

(iv) Deficient reports. When the required reports provided by the permittee are so deficient as to cause misunderstanding by the Director and thus impede the review of the status of compliance.

(v) Noncompliance with other permit requirements. Noncompliance shall be reported in the following circumstances:

(A) Whenever the permittee has violated a permit requirement (other than reported under paragraph (a)(2)(i) or (ii) of this section), and has not returned to compliance within 45 days from the date reporting of noncompliance was due under the permit; or

(B) When the Director determines that a pattern of noncompliance exists for a major facility permittee over the most recent four consecutive reporting periods. This pattern includes any violation of the same requirement in two consecutive reporting periods, and any violation of one or more requirements in each of four consecutive reporting periods; or

(C) When the Director determines significant permit non-compliance or other significant event has occurred such as a fire or explosion or migration of fluids into a USDW.

(vi) All other. Statistical information shall be reported quarterly on all other instances of noncompliance by major facilities with permit requirements not otherwise reported under paragraph (a) of this section.

(b) Annual reports — (1) Annual noncompliance report. Statistical reports shall be submitted by the Director on non-major HWM permittees indicating the total number reviewed,

the number of noncomplying nonmajor permittees, the number of enforcement actions, and number of permit modifications extending compliance deadlines. The statistical information shall be organized to follow the types of noncompliance listed in paragraph (a) of this section.

(2) In addition to the annual noncompliance report, the Director shall prepare a "program report" which contains information (in a manner and form prescribed by the Administrator) on generators and transporters and the permit status of regulated facilities. The Director shall also include, on a biennial basis, summary information on the quantities and types of hazardous wastes generated, transported, treated, stored and disposed during the preceding odd-numbered year. This summary information shall be reported in a manner and form prescribed by the Administrator and shall be reported according to EPA characteristics and lists of hazardous wastes at Section 261 of this regulation.

(c) Schedule. (1) For all quarterly reports. On the last working day of May, August, November, and February, the Director shall submit to the Regional Administrator information concerning noncompliance with HWM permit requirements by major facilities in the State in accordance with the following schedule. The Regional Administrator shall prepare and submit information for EPA-issued permits to EPA Headquarters in accordance with the same schedule.

Quarters Covered by Reports on Noncompliance by Major Dischargers

[Date for completion of reports]

January, February, and March ¹	May 31
April, May, and June ¹	August 31
July, August, and September ¹	November 30
October, November, and December ¹	February 28

¹Reports must be made available to the public for inspection and copying on this date.

§ 270.6 References.

(a) When used in Section 270 of this regulation, the following publications are incorporated by reference. These incorporations by reference were approved by the Director of the Federal Register pursuant to 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of approval and a notice of any change in these materials will be published in the Federal Register. Copies may be inspected at the Library, U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW., (3403T), Washington, DC 20460, libraryhq@epa.gov; or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.

(b) The following materials are available for purchase

from the National Technical Information Service (NTIS), 5285 Port Royal Road, Springfield, VA 22161, (703) 605-6000 or (800) 553-6847; or for purchase from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, (202) 512-1800:

- (1) "APTI Course 415: Control of Gaseous Emissions," EPA Publication EPA-450/2-81-005, December 1981, IBR approved for §§ 270.24 and 270.25.
- (2) [Reserved].

§ 270.7 Arkansas's General Requirements for Permit Applications

(a) *Nothing in this Section shall be construed to allow commercial hazardous waste landfill facilities to store, treat, bury, dispose or otherwise process hazardous waste without first obtaining a permit from the Department under the provisions of this Regulation.*

(b) *Financial Assurances. The owner or operator of a hazardous waste disposal facility shall provide long term financial responsibility as the Department may deem appropriate (§§ 264 and 265, Subsection H, of this regulation), taking into account the nature of the facility and the nature of waste stored, treated or disposed of in such facility. The financial responsibility required under this paragraph shall provide funds for claims arising out of injury to persons and property from the release or escape of hazardous waste to the environment during sudden or accidental occurrences and shall provide for reimbursement of expenses incurred by the Department or the State of Arkansas for cleanup or maintenance, monitoring or such other activities as may be necessary. The financial responsibilities required hereunder shall be for such period as determined by the Department.*

(c) *The owner or operator of a hazardous waste disposal facility shall provide contracts, agreements and such other documentation as may be required to demonstrate to the Director's reasonable satisfaction that the waste which is proposed to be disposed of is waste which results from the treatment of waste to the full extent of known technology and economics or is waste for which there is no technically and economically feasible means of treatment available.*

(d) Pre-application public meeting and notice.

(1) **Applicability.** The following requirements shall apply to all RCRA part B applications seeking initial permits for hazardous waste management units over which the Department has permit issuance authority. The requirements of this section shall also apply to RCRA part B applications seeking renewal of permits for such units, where the renewal application is proposing a significant change in facility operations. (For the purposes of this section, a "significant change" is any change that would qualify as a Class 3 permit modification under § 270.42 of this regulation.) The requirements of this section do not apply to *other* permit modifications

under § 270.42 or to applications that are submitted for the sole purpose of conducting post-closure activities or post-closure activities and corrective action at a facility.

(2) Prior to the submission of a part B RCRA permit application for a facility, the applicant must hold at least one meeting with the public in order to solicit questions from the community and inform the community of its proposed hazardous waste management activities. The applicant shall post a sign-in sheet or otherwise provide a voluntary opportunity for attendees to provide their names and addresses.

(3) The applicant shall submit a summary of the meeting, along with the list of attendees and their addresses developed under paragraph (b) of this section, and copies of any written comments or materials submitted at the meeting, to the Department as a part of the part B application, in accordance with § 270.14(b).

(4) The applicant must provide public notice of the pre-application meeting at least 30 days prior to the meeting. The applicant must maintain, and provide to the Department upon request, documentation of this notice.

(i) The applicant shall provide public notice in all of the following forms:

(A) A newspaper advertisement. The applicant shall publish a notice fulfilling the requirements of paragraph (4)(ii) of this subsection *in the newspaper having the largest circulation published in the county in which the facility is, or is proposed to be located, as well as publishing a notice in the newspaper having the largest circulation published in each adjoining county. If there is no newspaper published in any of the counties so affected, the notice shall be published in the newspaper(s) having the largest circulation in such county or counties.* The notice must be published as a display advertisement. *Proof of publication of the above notice shall be submitted to the Department within thirty (30) days of submission of the application.*

(B) A visible and accessible sign. The applicant shall post a notice on a clearly marked sign at or near the facility, fulfilling the requirements in paragraphs (4)(ii) below. If the applicant places the sign on the facility property, then the sign must be large enough to be readable from the nearest point where the public would pass by the site.

(C) A broadcast media announcement. The applicant shall broadcast a notice,

fulfilling the requirements in paragraph (4)(ii) of this section, at least once on at least one local radio station or television station. The applicant may employ another medium with prior approval of the Director.

(D) A notice to the permitting agency. The applicant shall send a copy of the newspaper notice to the Department and to the appropriate units of State and local government, in accordance with 40 CFR 124.10(c)(1)(x).

(ii) The notices required under paragraph (4)(i) of this section must include:

(A) *The name, title, and business address of the applicant;*

(B) *The location of the unit and/or facility, including a description of the boundaries, including the address or a map (e.g., a sketched or copied street map of the facility location);*

(C) A brief description of the nature of the facility (storage, treatment, or disposal) and its proposed operations (e.g., how waste is to be stored, treated, or disposed of) at the unit or facility which is the subject of the permit application;

(D) *The types of hazardous wastes to be managed at the unit or facility;*

(E) The date, time, and location of the meeting;

(F) A brief description of the purpose of the meeting;

(G) A statement encouraging people to contact the facility at least 72 hours before the meeting if they need special access to participate in the meeting; and

(H) The name, address, and telephone number of a contact person for the applicant.

(e) Public notice requirements at the application stage.

(1) Applicability. The following requirements shall apply to all RCRA part B applications seeking initial permits for hazardous waste management units over which the Department has permit issuance authority. The requirements of this section shall also apply to RCRA part B applications seeking renewal of permits for such units under § 270.51. The requirements of this section do not apply to permit modifications under § 270.42 or permit applications submitted for the sole purpose of conducting post-closure activities or post-closure activities and corrective action at a facility.

(2) Notification at application submittal.

(i) The applicant, or the owner/operator of the facility shall provide public notice as set forth in 40 CFR 124.10(c)(1)(ix), and notice to appropriate units of State and local

government as set forth in 40 CFR 124.10(c)(1)(x), that a part B permit application has been submitted to the Department and is available for review.

(ii) The notice shall be published in accordance with the provisions of *Regulation No. 8, § 8.205*. In addition to the information required at *Regulation No. 8 § 8.205(B)*, the notice must include:

(A) *The name, title, and business address of the applicant;*

(B) *The location of the unit and/or facility, including a description of the boundaries, including the address or a map (e.g., a sketched or copied street map of the facility location), and the city, town, or community nearest to the proposed facility;*

(C) A brief description of the nature of the facility (storage, treatment, or disposal) and its proposed operations (e.g., how waste is to be stored, treated, or disposed of) at the unit or facility which is the subject of the permit application;

(D) *The types of hazardous wastes to be managed at the unit or facility;*

(E) The name and telephone number of the applicant's contact person;

(F) The name and telephone number of the Department's contact office, and a mailing address to which information, opinions, and inquiries may be directed throughout the permit review process;

(G) An address to which people can write in order to be put on the facility mailing list;

(H) The location where copies of the permit application and any supporting documents can be viewed and copied; and

(I) The date that the application was submitted.

(3) Concurrent with the notice required under paragraph (2) above, the applicant or owner/operator must place a copy of the permit application and any supporting documents in a location accessible to the public in the vicinity of the facility or at the permitting agency's office.

(f) Information repository.

(1) Applicability. The requirements of this section apply to all applications seeking RCRA permits for hazardous waste management units over which the Department has permit issuance authority.

(2) The Director may assess the need, on a case-by-case basis, for an information repository. When assessing the need for an information repository, the Director shall consider a variety of factors, including: the level of public interest; the type of facility; the presence of an existing repository; and the proximity

to the nearest copy of the administrative record. If the Director determines, at any time after submittal of a permit application, that there is a need for a repository, then the Director shall notify the facility that it must establish and maintain an information repository. (See § 270.30(m) for similar provisions relating to the information repository during the life of a permit).

(3) The information repository shall contain all documents, reports, data, and information deemed necessary by the Director to fulfill the purposes for which the repository is established. The Director shall have the discretion to limit the contents of the repository.

(4) The information repository shall be located and maintained at a site chosen by the facility. If the Director finds the site unsuitable for the purposes and persons for which it was established, due to problems with the location, hours of availability, access, or other relevant considerations, then the Director shall specify a more appropriate site.

(5) The Director shall specify requirements for informing the public about the information repository. At a minimum, the Director shall require the facility to provide a written notice about the information repository to all individuals on the facility mailing list.

(6) The facility owner/operator shall be responsible for maintaining and updating the repository with appropriate information throughout a time period specified by the Director. The Director may close the repository at his or her discretion, based on the factors in paragraph (2) of this section.

(g) *Notice to Adjacent Landholders and Tenants.* Any person who submits a permit application for a new or existing hazardous waste management facility permit to the Department (including requests to modify or transfer an existing permit) shall provide written notice to all landholders and tenants of property contiguous to the proposed or existing facility. This notice shall be sent by certified mail, return receipt requested, and shall contain:

- (1) The name, title, and address of the applicant;
- (2) The location of the unit and/or facility, including a description of the boundaries of such unit and/or facility;
- (3) The nature of the unit or facility (storage, treatment, or disposal) and a brief description of how wastes are to be stored, treated, or disposed of at the unit or facility which is the subject of the application; and
- (4) The type(s) of hazardous wastes to be managed at the unit or facility.

The applicant shall submit to the Department documentation of its good faith effort to identify all such contiguous landholders and tenants and proof of notification within thirty (30) days of the application.

(h) *Permit Issuance.*

(1) A permit may not be transferred, issued or modified except with the approval of the Department provided, however, emergency authorization may be issued by the Director in accordance with the provisions of Sections 270.61 through 270.63.

(2) No permit shall be issued for the construction, modification or operation of a hazardous waste management facility unless the Department finds, after public hearings as provided herein, that said construction, modification or operation is, or will be, in compliance with the provisions of this Regulation including applicable provisions of Sections 264, 265, 270, and 40 CFR 124, 40 CFR 264, 40 CFR 265, 40 CFR 267 and 40 CFR 270. The Department may establish additional requirements as conditions of permit where it deems such conditions necessary to protect the public health and the environment.

(3) The Department may grant variances in accordance with the provisions of A.C.A. § 8-7-211, provided that said variances shall not provide terms less stringent than those set by federal regulations at 40 CFR Parts 260-268 and 270, or terms less stringent than provisions of this Regulation analogous to such federal regulations.

(4) Upon receipt of an application for a permit for a hazardous waste management facility, the Director shall cause the permit to be processed in accordance with the applicable provisions of this Regulation and 40 CFR Part 124 as adopted at Section 3 of this Regulation.

(5) The Director may authorize qualified persons interested in a pending application to enter upon the proposed site and make such relevant surveys and tests as the Director authorizes, under such conditions as required by the Director and upon sufficient notice to the applicant. All results of surveys or tests will be provided to both the Department and the permit applicant and all costs of surveys or tests will be borne by the party or parties requesting them. The Director will further insure that the permit applicant will have an opportunity to make a satisfactory showing (as provided in § 270.12 of this Regulation) that certain information which could meet criteria for being treated as confidential will not be collected by or disclosed to any individual other than authorized personnel of the Department.

(6) No permit shall be issued for a commercial hazardous waste management facility unless a public hearing is held in accordance with the provisions of subparagraph (9) below. No permit for noncommercial hazardous waste management facilities shall be issued unless the Department first gives a 45 day opportunity for public comment as provided in 40 CFR 124.10. Where written objection

1. 40 CFR 124.10(b)(2)(ii) also requires notice of the draft permit to be broadcast over a local radio station.

Regulation No. 23 § 270 – RCRA Permitting Process

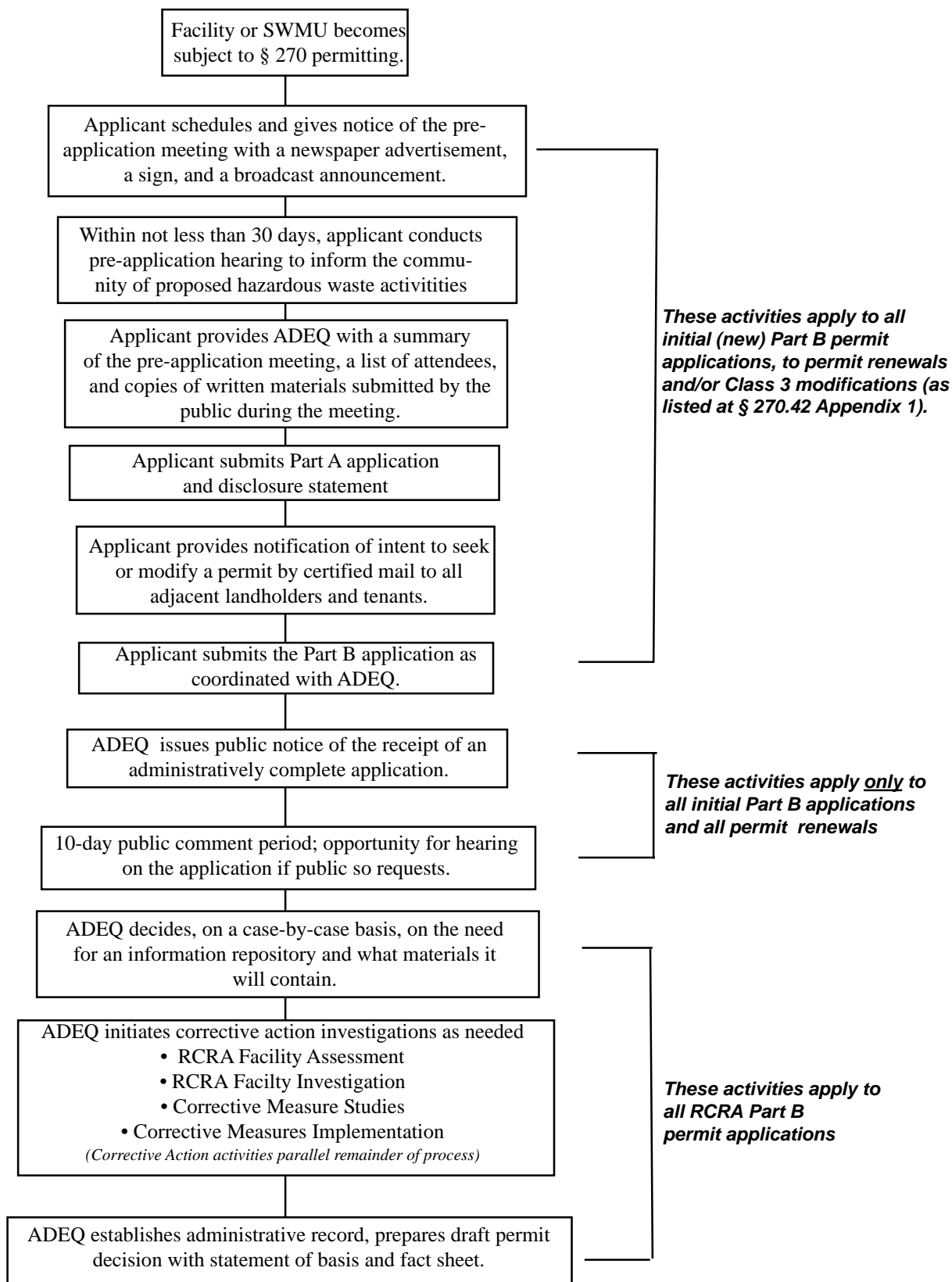


Figure 1- continued

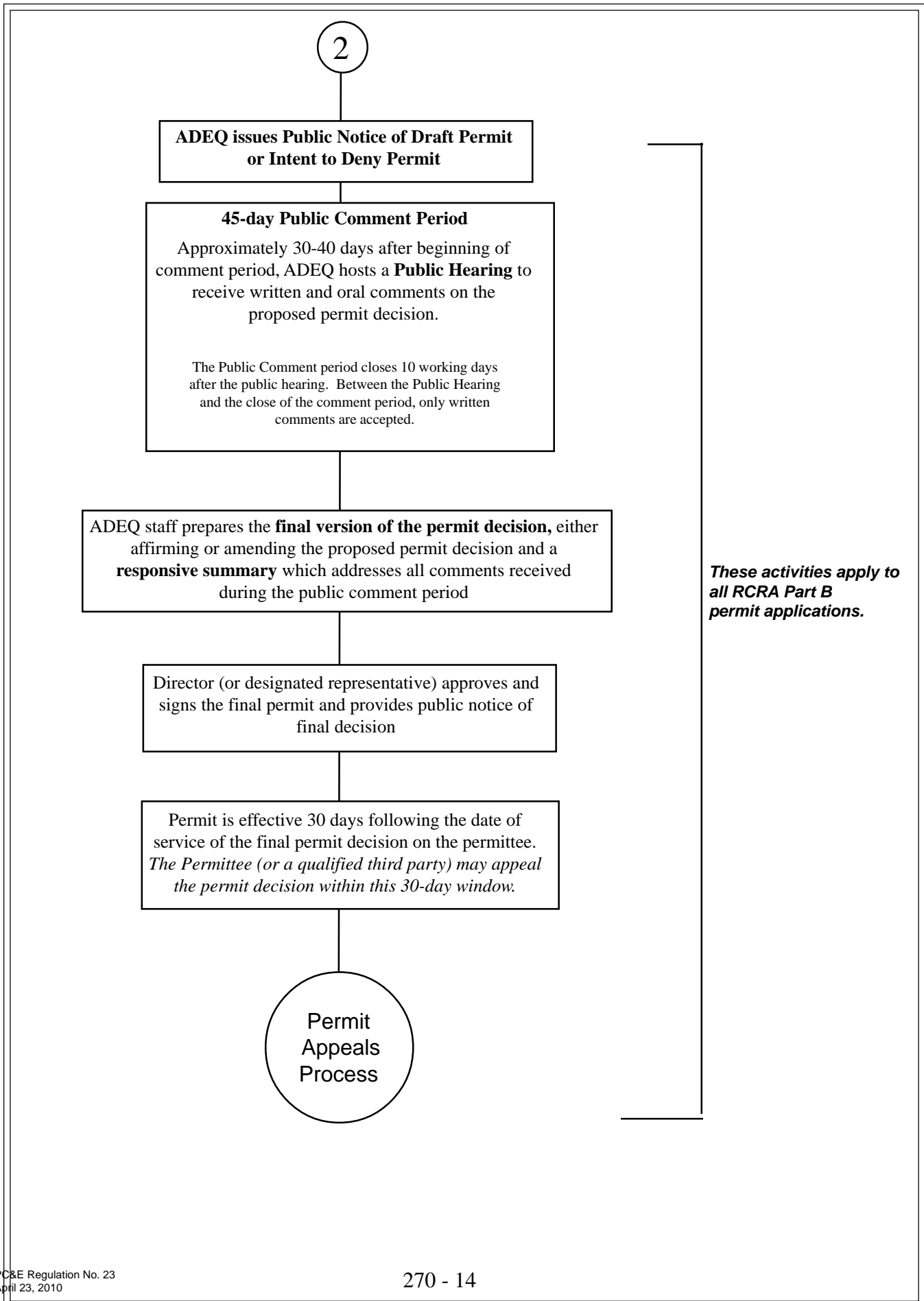
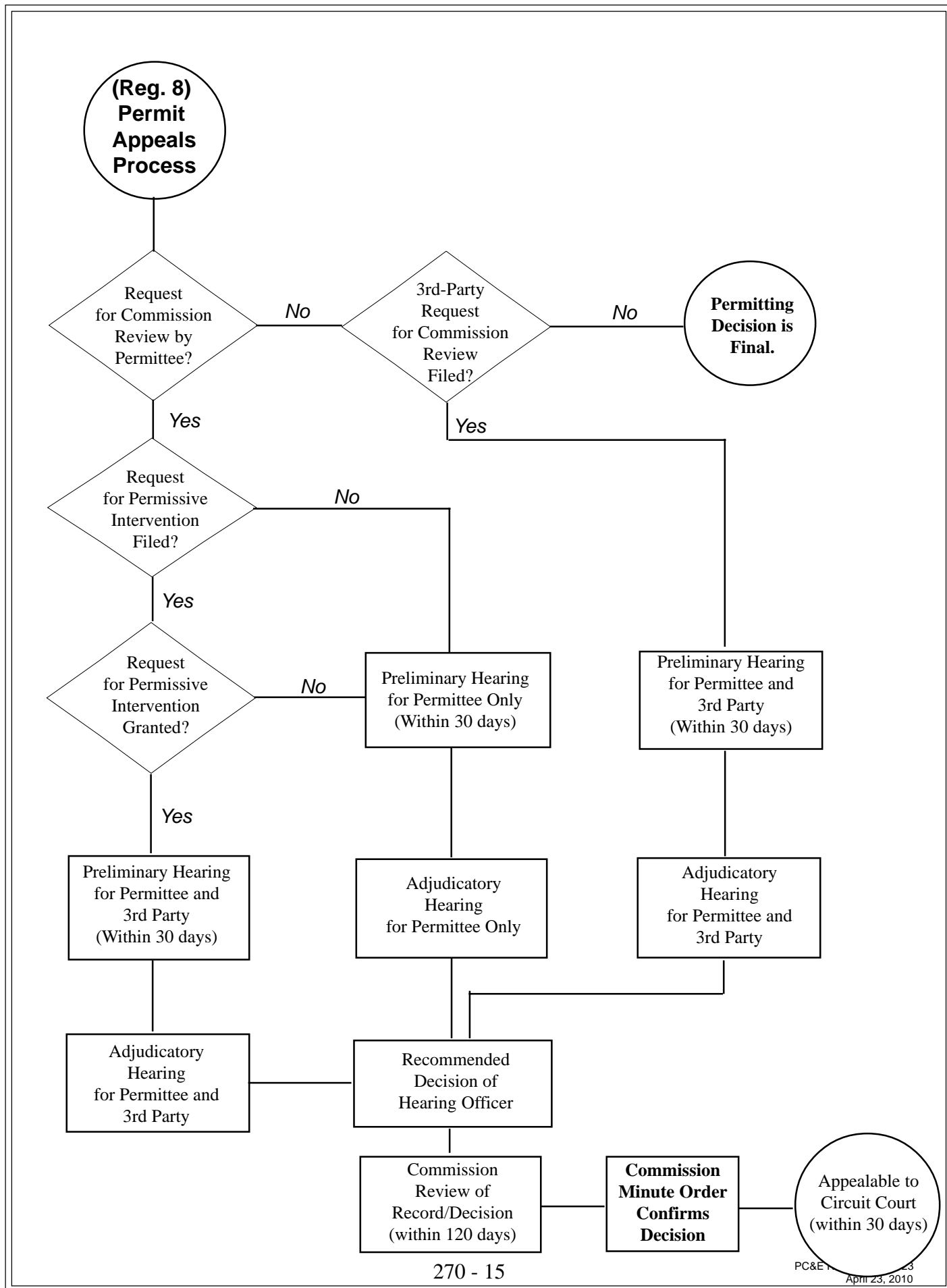


Figure 1-continued



to the issuance of a permit for a noncommercial hazardous waste management facility is filed within the 45 day comment period, no permit shall be issued unless a public hearing is held in accordance with the provisions of subparagraph (9) below.

(7) Prior to drafting the permit for any hazardous waste management facility, the Department may hold a preliminary hearing, for information purposes, in the area in which the facility is, or is to be located. The hearing may be held by giving no less than ten (10) days notice in the newspaper having the largest circulation in the county in which the facility is, or is proposed to be located and the newspaper having the largest circulation in each adjoining county. The notice shall provide:

- (i) The time, date and location of the hearing;
- (ii) The purpose of the hearing; and
- (iii) The location(s) where the application and all supporting information is available for public review.

(8) A 30-day notice of public hearing on the draft permit shall be given in the manner described in subparagraph (7) above¹. The notice shall provide:

- (i) The time, date and location of the hearing;
- (ii) The purpose of the hearing;
- (iii) The name and address of the applicant and the location where the facility is, or is proposed to be located;
- (iv) The tentative recommendation of the Department;

(v) The location(s) where copies of the application, the Department's recommendations and all supporting documentation can be reviewed by the public;

(vi) Procedures for submitting public comments into the hearing record.

(9) The public hearing required under subparagraph (8) above shall be in the area where the facility is or is proposed to be located. A record of hearing shall be made and retained as part of the administrative record of each application for review by the Commission.

(i) In addition to the requirement of Section 265.119, a permittee shall submit to the Department, as part of the annual permit review process, a plat of any landfill disposal area in which waste has been deposited. Such plat shall clearly delineate the location of all wastes and its type, referenced to established benchmarks.

(j) Upon receipt of federal Hazardous and Solid Waste Act ("HSWA") authorization for the Arkansas Department of Pollution Control and Ecology's Hazardous Waste Management Program, the Department shall be authorized to and shall enforce the HSWA provisions imposed by the Environmental Protection Agency in hazardous waste permits that were issued before the HSWA authorization was granted. ADEQ, jointly with EPA, will notify permitted facilities in writing of the specific provisions which will become the state

agency's responsibility as a result of the additional authorization and of the effective date of the changeover. This notification will serve as an addendum to the permit. Permits pending at the time of authorization will be modified to properly identify specific provisions for which the Department has primary responsibility.

Subsection B – Permit Applications

§ 270.10 General application requirements.

(a) Applying for a permit. Below is information on how to obtain a permit and where to find requirements for specific permits:

(1) If you are covered by RCRA permits by rule (§ 270.60), you need not apply.

(2) If you currently have interim status, you must apply for permits when required by the Director.

(3) If you are required to have a permit (including new applicants and permittees with expiring permits), you must complete, sign, and submit an application to the Director, as described in this section and §§ 270.70 through 270.73.

(4) If you are seeking an emergency permit, the procedures for application, issuance, and administration are found exclusively in § 270.61.

(5) If you are seeking a research, development, and demonstration permit, the procedures for application, issuance, and administration are found exclusively in § 270.65.

(6) If you are seeking a standardized permit, the procedures for application and issuance are found in 40 CFR Part 124, subsection G, Regulation No. 8, and and Subsection J of this Section.

(b) Who applies? When a facility or activity is owned by one person but is operated by another person, it is the operator's duty to obtain a permit, except that the owner must also sign the permit application.

(c) Completeness. The Director shall not issue a permit before receiving a complete application for a permit except for permits by rule, or emergency permits. An application for a permit is complete when the Director receives an application form and any supplemental information which are completed to his satisfaction. An application for a permit is complete notwithstanding the failure of the owner or operator to submit the exposure information described in paragraph (j) of this section. The Director may deny a permit for the active life of a hazardous waste management facility or unit before receiving a complete application for a permit.

(d) Information requirements. All applicants for HWM permits shall provide information set forth in § 270.13 and applicable sections in §§ 270.14 through 270.29 to the Director, using the application form provided by the Director.

(e) **Existing Facilities:**

(1) Facilities in existence on *March 14, 1979*,

which are required to have a permit under the Act may continue in operation until such time as a permit is issued or denied under this Chapter and Regulation, provided that the owner or operator of such facility made application to the Department on the initial state application form on or before September 14, 1979; and provided that such facilities also comply with the other provisions of this Section and the provisions of § 270.10 and 270.71-73.

(Editor's Note: This is a more stringent State requirement of the Arkansas Hazardous Waste Management Act (§ 8-7-216(b)). Whereas the federal regulations allow a facility to qualify for interim status by submitting a Part A application by November 19, 1980, Arkansas facilities must have applied on or prior to September 14, 1979 in order to have qualified for interim status under the RCRA regulations.)

(2) Owners and operators of hazardous waste management facilities, in existence as of the effective date of provisions adopted in this Regulation which first subject them to compliance with the standards of this Regulation and 40 CFR 265, must submit Part A of their permit application to the Department no later than (i) six months after the date of publication of regulations in this Regulation which first require them to comply with the standards set forth in this Regulation and 40 CFR Part 265, or (ii) thirty days after the date they first become subject to the standards set forth in this Regulation and 40 CFR Part 265, whichever first occurs.

(3) The Director may extend the date by which owners and operators of specific classes of existing hazardous waste management facilities must submit their initial state application and/or Part A of their permit application if he finds that 1) there has been substantial confusion as to whether the owners and operators of such facilities were required to file a permit application; and 2) such confusion is attributed to ambiguities in 40 CFR Parts 260, 261 or 265.

(4) The Director may by Administrative Order issued under the Act, this Regulation, and Regulation No. 8, extend the date by which the owner or operator of an existing hazardous waste management facility must submit the initial state application and/or Part A of their permit application.

(5) The Director may require submission of Part B from any facility at any time. Any owner or operator shall be allowed at least six months from the date of request to submit Part B of the application. Any owner or operator of an existing hazardous waste management facility may voluntarily submit Part B of the application at any time.

(6) Failure to furnish a requested Part B application on time, or to furnish in full the information required by the Part B application, is grounds for termination of interim status.

(7) Any person who owns or operates an existing hazardous waste management facility shall have interim status and shall be treated as having been

issued a permit to the extent he or she has complied with the requirements of Arkansas Code, Annotated, § 8-7-218, as amended, § 264.18(f), paragraphs (1)-(5) above, and RCRA § 3010.

(8) If the Department determines that a Part A application is deficient, it may notify the owner or operator that he or she is not entitled to interim status. The owner or operator shall then be subject to enforcement for operating without a permit.

(9) Nothing in this Section shall be construed to allow commercial hazardous waste landfill facilities to store, treat, bury, dispose, or otherwise process hazardous waste without first obtaining a permit from the Department under this chapter and Regulation.

(f) New HWM facilities.

(1) Except as provided in paragraph (f)(3) of this section, no person shall begin physical construction of a new HWM facility without having submitted Parts A and B of the permit application and having received a finally effective HWM permit.

(2) An application for a permit for a new hazardous waste management facility (including both Parts A and B) may be filed any time after promulgation of those standards in Section 264, subsection I *et seq.* applicable to such facility. The application shall be filed with the Regional Administrator if at the time of application the State in which the new hazardous waste management facility is proposed to be located has not received interim or final authorization for permitting such facility; otherwise it shall be filed with the State Director. Except as provided in paragraph (f)(3) of this section, all applications must be submitted at least 180 days before physical construction is expected to commence.

(3) Notwithstanding paragraph (f)(1) of this section, a person may construct a facility for the incineration of polychlorinated biphenyls pursuant to an approval issued by the EPA Administrator under section (6)(e) of the federal Toxic Substances Control Act and any person owning or operating such a facility may, at any time after construction or operation of such facility has begun, file an application for an HWM permit to incinerate hazardous waste authorizing such facility to incinerate waste identified or listed under A.C.A. §§ 8-7-201 *et seq.*

(g) Updating permit applications. (1) If any owner or operator of a hazardous waste management facility has filed Part A of a permit application and has not yet filed part B, the owner or operator shall file an amended part A application:

(i) With the Regional Administrator if the facility is located in a State which has not obtained interim authorization or final authorization, within six months after the promulgation of revised regulations under Section 261 listing or identifying additional

hazardous wastes, if the facility is treating, storing or disposing of any of those newly listed or identified wastes.

(ii) With the State Director, if the facility is located in a State which has obtained interim authorization or final authorization, no later than the effective date of regulatory provisions listing or designating wastes as hazardous in that State in addition to those listed or designated under the previously approved State program, if the facility is treating, storing or disposing of any of those newly listed or designated wastes; or

(iii) As necessary to comply with provisions of §. 270.72 for changes during interim status or with the analogous provisions of a State program approved for final authorization or interim authorization. Revised Part A applications necessary to comply with the provisions of Sec. 270.72 shall be filed with the Regional Administrator if the State in which the facility in question is located does not have interim authorization or final authorization; otherwise it shall be filed with the State Director (if the State has an analogous provision).

(2) The owner or operator of a facility who fails to comply with the updating requirements of paragraph (g)(1) of this section does not receive interim status as to the wastes not covered by duly filed Part A applications.

(h) Reapplying for a permit. If you have an effective permit and you want to reapply for a new one, you have two options:

(1) You may submit a new application at least 180 days before the expiration date of the effective permit, unless the Director allows a later date; or

(2) If you intend to be covered by a standardized permit, you may submit a Notice of Intent as described in § 270.51(e)(1) at least 180 days before the expiration date of the effective permit, unless the Director allows a later date. The Director may not allow you to submit applications or Notices of Intent later than the expiration date of the existing permit, except as allowed by § 270.51(e)(2).

(i) Recordkeeping. Applicants shall keep records of all data used to complete permit applications and any supplemental information submitted under §§ 270.10(d), 270.13, 270.14 through 270.21 for a period of at least 3 years from the date the application is signed.

(j) Exposure information. (1) After August 8, 1985, any Part B permit application submitted by an owner or operator of a facility that stores, treats, or disposes of hazardous waste in a surface impoundment or a landfill must be accompanied by information, reasonably ascertainable by the owner or operator, on the potential for the public to be exposed to hazardous wastes or hazardous constituents through releases

related to the unit. At a minimum, such information must address:

(i) Reasonably foreseeable potential releases from both normal operations and accidents at the unit, including releases associated with transportation to or from the unit;

(ii) The potential pathways of human exposure to hazardous wastes or constituents resulting from the releases described under paragraph (j)(1)(i) of this section; and

(iii) The potential magnitude and nature of the human exposure resulting from such releases.

(2) By August 8, 1985, owners and operators of a landfill or a surface impoundment who have already submitted a Part B application must submit the exposure information required in paragraph (j)(1) of this section.

(k) The Director may require a permittee or an applicant to submit information in order to establish permit conditions under §§ 270.32(b)(2) and 270.50(d) of this regulation.

(l) Disclosure Requirements. (1) Pursuant to the provisions of Ark. Code Ann. § 8-1-106, all applicants for a RCRA treatment, storage, or disposal permit for a noncommercial hazardous waste management facility, transfer of any permit, or any other permit, license, certification, or operating authority shall submit a disclosure statement with their application. The submission of a disclosure statement is mandatory; no application can be considered complete without it. Deliberate falsification or omission of relevant information from a disclosure statement shall be grounds for civil or criminal enforcement action or the administrative denial of a permit, license, certification, or operational authorization. The disclosure statement shall be an original, written statement by the applicant which contains:

(i) The full name, business address, and social security number of the applicant and all affiliated persons;

(ii) The full name and business address of any legal entity in which the applicant holds a debt or equity interest of five percent (5%) or more, or which is a parent company or subsidiary of the applicant, and a description of the ongoing organizational relationships as they may impact the applicant's operations in Arkansas;

(iii) A description of the experience and credentials of the applicant, including any past or present permits, licenses, certifications, or operational authorizations relating to environmental regulation;

(iv) A listing and explanation of any civil or criminal enforcement actions by governmental agencies involving environmental protection laws against the applicant or any affiliated person within the ten years immediately

preceding the filing of the application, to include administrative enforcement actions or consent orders resulting in the imposition of sanctions, permit or license revocations or denials issued by any state or federal authority, any actions that have resulted in a finding or a settlement of a violation, and any similar action pending;

(v) A listing of any federal environmental agency and any other environmental enforcement agency that has or has had regulatory responsibility over the applicant; and

(vi) Any other additional information the Director may require which relates to the competency, reliability, or responsibility of the applicant and any affiliated person.

(2) If the applicant is a publicly held company required to file periodic reports under the Securities and Exchange Act of 1934, or a wholly-owned subsidiary of a publicly-held company, he may submit, in lieu of a disclosure statement, a copy of the most recent annual and quarterly reports required by the Securities and Exchange Commission¹. The applicant shall also submit any other information required by the Director which relates to the competency, reliability, or responsibility of the applicant and any affiliated person.

(3) Governmental entities consisting only of subdivisions or agencies of the federal government, agencies of the state government, counties, municipalities, or duly authorized regional solid waste authorities as defined at Ark. Code Ann. § 8-6-707 are not required to file a disclosure statement under the provisions of this section.

(4) In addition to the requirements of Section 270.14 of this regulation, a change of the ultimate controlling authority from one ultimate controlling person to another is deemed a transfer of permit subject to the prior approval of the Department. An application requesting such approval must contain at least the following information:

(i) A description of the nature, source and amount of funds or other considerations to be used in affecting the merger or other acquisitions of control;

(ii) The number and percentage or shares of the voting securities which the acquiring person plans to acquire and the terms of the offer, request, invitation, agreement or acquisition; and

(iii) All information required under paragraphs (1) or (m) of this Subsection concerning the acquiring person.

(m) Ownership Disclosure for Commercial Waste Facilities

(1) The following information shall be submitted along with Part A of any permit application for a commercial hazardous waste management facility.

(i) If the permit applicant is not an individual, the nature of its business operations shall be stated for the past five years or for such lesser period as such person and any predecessors thereof shall have been in existence.

(ii) A chart or listing clearly presenting the identities of the interrelationships among the applicant and all affiliates of the applicant shall be furnished. No affiliate need to be identified if its total assets are equal to or less than 1/2 of 1% total assets of the ultimate controlling person affiliated with the applicant. Such a chart should indicate or list the percentage voting securities of each such person which is owned or controlled by the applicant or by any other person, if control of any person is maintained other than basis of such control. As to each person specified in such chart or listing, indicate the type of organization (e.g., corporation, trust, partnership) and the state or other jurisdiction or domicile.

(2) State the following with respect to 1) the permit application if he or she is an individual or 2) all individuals who are directors, executive officers or owners of 10% or more of the voting securities of the permit applicant if the applicant is not an individual:

(i) Name and business address;

(ii) Present principal business activity, occupation or employment position and office held and the name, principal business and address of any corporation or other organization in which such employment is carried on;

(iii) Material occupations, positions, offices or employment during the last five years, giving the starting and ending dates of each and the name, principal business and address of any business, corporation, position, office or employment carried on; and

(iv) Whether or not such individual has ever been convicted in a criminal proceeding (excluding minor traffic violations) during the last 10 years and, if so, giving the date, nature of conviction, name and location of court, and penalty imposed or other disposition of the case.

(3) The following additional information shall be furnished concerning the ultimate controlling person if different from the applicant:

(i) The principal executive office address;

(ii) The principal business of the person;

(iii) The name and address of any person

who holds or owns 10% or more of any class of voting security, the class of such security, the number of shares held of record or known to the owner and the percentage of class so held or owned; and

(iv) With respect to directors and executive officers of the ultimate controlling person, the individual's name and address, his principal occupation and all offices and positions held during the previous five years and any conviction of crimes other than minor traffic violations during the past ten years.

(4) The permit applicant shall provide a brief description of any litigation or administrative proceeding of the following types, either pending or concluded within the preceding year, to which the applicant (and the ultimate controlling person, if different from the applicant) or any of its directors or executive officers was a party or of which the property of any such person is or was the subject; the names of the parties and the court or agency in which such litigation or proceeding is or was pending shall be given:

- (i) Administrative or judicial proceedings of any state or federal agency or authority concerning environmental violations;*
- (ii) Proceedings which may have a material effect upon the solvency of the ultimate holding company, including, but not necessarily limited to, bankruptcy and receivership; and*
- (iii) Criminal proceedings.*

(5) The permit applicant shall disclose on an annual basis any changes in the information requested under this paragraph ((m)).

(6) Every person who becomes the owner of 10% or more of any voting security of a permittee or the ultimate controlling person subsequent to the issuance of a permit shall report within ten (10) days of becoming such owner or controlling person the information required under § 270.10(m)(2) above.

(n) If the Director concludes, based on one or more of the factors listed in paragraph (n)(1) of this section that compliance with the standards of 40 CFR part 63, subpart EEE alone may not be protective of human health or the environment, the Director shall require the additional information or assessment(s) necessary to determine whether additional controls are necessary to ensure protection of human health and the environment. This includes information necessary to evaluate the potential risk to human health and/or the environment resulting from both direct and indirect exposure pathways. The Director may also require a permittee or applicant to provide information necessary to determine whether such an assessment(s) should be required.

(1) The Director shall base the evaluation of whether compliance with the standards of 40 CFR part 63, subpart EEE alone is protective of human

health or the environment on factors relevant to the potential risk from a hazardous waste combustion unit, including, as appropriate, any of the following factors:

- (i) Particular site-specific considerations such as proximity to receptors (such as schools, hospitals, nursing homes, day care centers, parks, community activity centers, or other potentially sensitive receptors), unique dispersion patterns, etc.;
- (ii) Identities and quantities of emissions of persistent, bioaccumulative or toxic pollutants considering enforceable controls in place to limit those pollutants;
- (iii) Identities and quantities of nondioxin products of incomplete combustion most likely to be emitted and to pose significant risk based on known toxicities (confirmation of which should be made through emissions testing);
- (iv) Identities and quantities of other off-site sources of pollutants in proximity of the facility that significantly influence interpretation of a facility-specific risk assessment;
- (v) Presence of significant ecological considerations, such as the proximity of a particularly sensitive ecological area;
- (vi) Volume and types of wastes, for example wastes containing highly toxic constituents;
- (vii) Other on-site sources of hazardous air pollutants that significantly influence interpretation of the risk posed by the operation of the source in question;
- (viii) Adequacy of any previously conducted risk assessment, given any subsequent changes in conditions likely to affect risk; and
- (ix) Such other factors as may be appropriate.

(2) [Reserved]

§ 270.11 Signatories to permit applications and reports.

(a) Applications. All permit applications shall be signed as follows:

- (1) For a corporation: By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision making functions for the corporation, or (ii) the manager of one or more manufacturing, production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980

dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

Note: ADEQ does not require specific assignments or delegations of authority to responsible corporate officers identified in § 270.11(a)(1)(i). The Department will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the Director to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under § 270.11(a)(1)(ii) rather than to specific individuals.

(2) For a partnership or sole proprietorship; by a general partner or the proprietor, respectively; or

(3) For a municipality, State, Federal, or other public agency; by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

(b) Reports. All reports required by permits and other information requested by the Director shall be signed by a person described in paragraph (a) of this section, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described in paragraph (a) of this section;

(2) The authorization specifies either an individual or a position having responsibility for overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

(3) The written authorization is submitted to the Director.

(c) Changes to authorization. If an authorization under paragraph (b) of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

(d)(1) Any person signing a document under paragraph (a) or (b) of this section must make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

(2) For remedial action plans (RAPs) under subsection H of this section, if the operator certifies according to paragraph (d)(1) of this section, then the owner may choose to make the following certification instead of the certification in paragraph (d)(1) of this section:

Based on my knowledge of the conditions of the property described in the RAP and my inquiry of the person or persons who manage the system referenced in the operator's certification, or those persons directly responsible for gathering the information, the information submitted is, upon information and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

§ 270.12 Availability of Information and Protection of Trade and Business Secrets.

(a) Any records, reports, or information contained under this Regulation and any permits, permit applications, and related documentation shall be available to the public for inspection and copying. However, upon a satisfactory showing to the Director that such records, reports, permits, documentation, or information, or any part thereof would, if made public, divulge methods or processes entitled to protection as trade secrets, the Director shall consider, treat and protect such records as confidential.

(b) It shall be the responsibility of the person claiming any information as confidential under the provisions of subsection a above to clearly mark each page containing such information with the words "CONFIDENTIAL" and to submit an affidavit setting forth the reasons that said person believes that such information is entitled to protection.

(c) Any document submitted to the Department which contains information for which the claim of confidential information is made shall be submitted in a sealed envelope marked "CONFIDENTIAL" and addressed to the Director. The document shall be submitted in two separate parts. The first part shall contain all information which is not deemed by the person preparing the report as confidential and shall include appropriate cross references to the second part which contains data, words, phrases, paragraphs, or pages and appropriate affidavits containing or relating to information which is claimed to be confidential.

(d) No information shall be protected as confidential information by the Director unless it is submitted to him in accordance with the provisions of subsection (c) above. No information which is submitted in accordance with the provisions of subsection (c) above shall be afforded protection as confidential information unless the Director finds that such protection is necessary to protect trade secrets and that such protection will not hide from public view the characteristics of waste material and probable effects of the introduction of such waste or byproducts into the environment as a result of the operation of a hazardous waste management facility. The person who submits information claimed as confidential shall receive written notice from the Director as to whether the information has been accepted as confidential

or not.

(e) All information which meets the tests of subsection (d) above shall be marked with the term "ACCEPTED" and shall be protected as confidential information. Whenever the Director finds that information which has been submitted as confidential information in accordance with subsection (c) above does not meet the criteria of subsection (d) above, he shall promptly notify the person submitting such information of his findings and shall give that person reasonable opportunity to further justify his contention that the information deserves protection as a trade secret or to further limit the scope of information for which the request for protection is made. If said person fails to satisfactorily demonstrate to the Director that such information in the form presented to him meets the criteria of subsection (d) above, the Director shall mark the information "REJECTED" and promptly return such information to the person submitting such information. Such person shall have 30 days to resubmit the information in acceptable form or appeal the decision of the Director.

(f) All information which is accepted by the Director as confidential shall be stored in locked filing cabinets and only those personnel of the Department specifically designated by the Director shall have access to the information contained therein. The Director shall not designate any persons to have access to confidential information unless the person requires such access in order to carry out his responsibilities and duties. No person shall disclose any confidential information except in accordance with the provisions of this Section. No copies shall be made other than for internal Department use or for use or transmittal to officers and employees of the United States except with the written permission of the Director and the person submitting the information.

(g) The person(s) designated by the Director to maintain confidential files as herein provided shall maintain a log showing the persons who have had access to the confidential files and the dates of such access.

(h) As necessary to carry out the provisions of the Arkansas Hazardous Waste Management Act, any confidential information acquired by the Department under the provisions of said act may be transmitted to other offices, employees, or authorized representatives of the state or United States provided that the owner or operator of the facility to which such information pertains is informed of such transmittal and provided that such transmittal is made under a continuing restriction of confidentiality.

(i) Nothing contained herein shall be construed so as to restrict the release of relevant confidential information during situations declared to be emergencies by the Director or his designee.

(j) Claims of confidentiality for the name and address of any permit applicant or permittee will be denied.

(k) If a request for any records, documents or information acquired or maintained by ADEQ pursuant to the Arkansas Hazardous Waste Management Act and/or this Regulation is denied by the Director a notice shall be sent to the requestor stating the basis of the denial and informing the requestor

that:

(1) He may appeal immediately from such denial to an appropriate Circuit Court pursuant to the Arkansas Freedom of Information Act; or,

(2) He may request judicial review within thirty (30) days of receipt of the notice by filing a notice of appeal with the Secretary of the Arkansas Pollution Control and Ecology Commission and proceeding further pursuant to A.C.A. § 8-4-222.

(l) If a request for records, documents or information is denied, the Director will send the notice required by subsection (k) within twenty (20) days of receipt of the request.

(m) If the Director fails to produce requested records, documents or information and fails to send the notice required by subsection (k), such failure shall constitute final agency action giving the requestor the right to judicial review under A.C.A. § 8-4-222 in addition to any rights of review under the Arkansas Freedom of Information Act.

§ 270.13 Contents of Part A of the permit application.

Part A of the hazardous waste management permit application shall include the following information:

(a) The activities conducted by the applicant which require it to obtain a permit under RCRA.

(b) Name, mailing address, and location, including latitude and longitude of the facility for which the application is submitted.

(c) Up to four SIC codes which best reflect the principal products or services provided by the facility.

(d) The operator's name, address, telephone number, ownership status, and status as Federal, State, private, public, or other entity.

(e) The name, address, and phone number of the owner of the facility.

(f) Whether the facility is located on Indian lands.

(g) An indication of whether the facility is new or existing and whether it is a first or revised application.

(h) For existing facilities, (1) a scale drawing of the facility showing the location of all past, present, and future treatment, storage, and disposal areas; and (2) photographs of the facility clearly delineating all existing structures; existing treatment, storage, and disposal areas; and sites of future treatment, storage, and disposal areas.

(i) A description of the processes to be used for treating, storing, and disposing of hazardous waste, and the design capacity of these items.

(j) A specification of the hazardous wastes listed or designated under Section 261 of this regulation to be treated, stored, or disposed of at the facility, an estimate of the quantity of such wastes to be treated, stored, or disposed annually, and a general description of the processes to be used for such wastes. For each hazardous waste described above, the application shall include the name and location of

the generator of the wastes.

(k) A listing of all permits or construction approvals received or applied for under any of the following programs:

- (1) Hazardous Waste Management program under RCRA.
- (2) UIC program under the SWDA.
- (3) NPDES program under the CWA.
- (4) Prevention of Significant Deterioration (PSD) program under the Clean Air Act.
- (5) Nonattainment program under the Clean Air Act.
- (6) National Emission Standards for Hazardous Pollutants (NESHAPS) preconstruction approval under the Clean Air Act.
- (7) Ocean dumping permits under the Marine Protection Research and Sanctuaries Act.
- (8) Dredge or fill permits under section 404 of the CWA.
- (9) Other relevant environmental permits, including State permits.

(l) A topographic map (or other map if a topographic map is unavailable) extending one mile beyond the property boundaries of the source, depicting the facility and each of its intake and discharge structures; each of its hazardous waste treatment, storage, or disposal facilities; each well where fluids from the facility are injected underground; and those wells, springs, other surface water bodies, and drinking water wells listed in public records or otherwise known to the applicant within 1/4 mile of the facility property boundary.

(m) A brief description of the nature of the business.

(n) For hazardous debris, a description of the debris category(ies) and contaminant category(ies) to be treated, stored, or disposed of at the facility.

(o) Disclosure information as required by § 270.10(l) of this section.

(p) *For hazardous waste landfills, evidence of such forms of assurance including full fee ownership of lands and all mineral rights thereto, to ensure that the owner of the landfill for which application is made has the legal authority to commit lands used for the landfill to perpetual security and that said owner has made such legally binding arrangements as necessary to protect the integrity of the surface and subsurface area of the landfill in perpetuity.*

§ 270.14 Contents of Part B: General requirements.

(a) Part B of the permit application consists of the general information requirements of this section, and the specific information requirements in §§ 270.14 through 270.29 applicable to the facility. The Part B information requirements presented in §§ 270.14 through 270.29 reflect the standards promulgated in 40 CFR part 264 and Section 264. These information requirements are necessary in order for ADEQ to determine compliance with the Section 264 and 40 CFR Part 264 standards. If owners and operators of HWM

facilities can demonstrate that the information prescribed in Part B can not be provided to the extent required, the Director may make allowance for submission of such information on a case-by-case basis. Information required in Part B shall be submitted to the Director and signed in accordance with requirements in § 270.11. Certain technical data, such as design drawings and specifications, and engineering studies shall be certified by an independent qualified Arkansas-registered professional engineer. For post-closure permits, only the information specified in § 270.28 is required in Part B of the permit application.

(b) General information requirements. The following information is required for all HWM facilities, except as § 264.1 provides otherwise:

- (1) A general description of the facility.
- (2) Chemical and physical analyses of the hazardous waste and hazardous debris to be handled at the facility. At a minimum, these analyses shall contain all the information which must be known to treat, store, or dispose of the wastes properly in accordance with Section 264.
- (3) A copy of the waste analysis plan required by § 264.13(b) and, if applicable § 264.13(c).
- (4) A description of the security procedures and equipment required by § 264.14, or a justification demonstrating the reasons for requesting a waiver of this requirement.
- (5) A copy of the general inspection schedule required by § 264.15(b) of this section. Include where applicable, as part of the inspection schedule, specific requirements in §§ 264.174, 264.193(i), 264.195, 264.226, 264.254, 264.273, 264.303, 264.602, 264.1033, 264.1052, 264.1053, 264.1058, 264.1084, 264.1085, 264.1086, 264.1088, and 264.1101 of this section.
- (6) A justification of any request for a waiver(s) of the preparedness and prevention requirements of Section 264, Subsection C.
- (7) A copy of the contingency plan required by Section 264, Subsection D. Note: Include, where applicable, as part of the contingency plan, specific requirements in §§ 264.227, 264.255, and 264.200, and evidence that this plan has been developed in consultation with the fire department having jurisdiction and by the Mayor or City Manager of the municipality or by the County Judge of the county in which the facility is to be located.
- (8) A description of procedures, structures, or equipment used at the facility to:
 - (i) Prevent hazards in unloading operations (for example, ramps, special forklifts);
 - (ii) Prevent runoff from hazardous waste handling areas to other areas of the facility or environment, or to prevent flooding (for example, berms, dikes, trenches);
 - (iii) Prevent contamination of water supplies;
 - (iv) Mitigate effects of equipment failure

and power outages;

(v) Prevent undue exposure of personnel to hazardous waste (for example, protective clothing); and

(vi) Prevent releases to atmosphere.

(9) A description of precautions to prevent accidental ignition or reaction of ignitable, reactive, or incompatible wastes as required to demonstrate compliance with § 264.17 including documentation demonstrating compliance with § 264.17(c).

(10) Traffic pattern, estimated volume (number, types of vehicles) and control (for example, show turns across traffic lanes, and stacking lanes (if appropriate)); describe access road surfacing and load bearing capacity; show traffic control signals).

(11) Facility location information;

(i) In order to determine the applicability of the seismic standard [§ 264.18(a)] the owner or operator of a new facility must identify the political jurisdiction (e.g., county, township, or election district) in which the facility is proposed to be located.

[Comment: If the county or election district is not listed in appendix VI of Section 264, no further information is required to demonstrate compliance with § 264.18(a).]

(ii) If the facility is proposed to be located in an area listed in appendix VI of Section 264, the owner or operator shall demonstrate compliance with the seismic standard. This demonstration may be made using either published geologic data or data obtained from field investigations carried out by the applicant. The information provided must be of such quality to be acceptable to geologists experienced in identifying and evaluating seismic activity. The information submitted must show that either:

(A) No faults which have had displacement in Holocene time are present, or no lineations which suggest the presence of a fault (which have displacement in Holocene time) within 3,000 feet of a facility are present, based on data from:

- (1) Published geologic studies,
- (2) Aerial reconnaissance of the area within a five-mile radius from the facility.
- (3) An analysis of aerial photographs covering a 3,000 foot radius of the facility, and
- (4) If needed to clarify the above data, a reconnaissance based on walking portions of the area within 3,000 feet of the facility, or

(B) If faults (to include lineations) which have had displacement in Holocene time

are present within 3,000 feet of a facility, no faults pass within 200 feet of the portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted, based on data from a comprehensive geologic analysis of the site. Unless a site analysis is otherwise conclusive concerning the absence of faults within 200 feet of such portions of the facility data shall be obtained from a subsurface exploration (trenching) of the area within a distance no less than 200 feet from portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted. Such trenching shall be performed in a direction that is perpendicular to known faults (which have had displacement in Holocene time) passing within 3,000 feet of the portions of the facility where treatment, storage, or disposal of hazardous waste will be conducted. Such investigation shall document with supporting maps and other analyses, the location of faults found.

[Comment: EPA's "The Guidance Manual for the Location Standards" provides greater detail on the content of each type of seismic investigation and the appropriate conditions under which each approach or a combination of approaches would be used.]

(iii) Owners and operators of all facilities shall provide an identification of whether the facility is located within a 100-year floodplain. This identification must indicate the source of data for such determination and include a copy of the relevant Federal Insurance Administration (FIA) flood map, if used, or the calculations and maps used where an FIA map is not available. Information shall also be provided identifying the 100-year flood level and any other special flooding factors (e.g., wave action) which must be considered in designing, constructing, operating, or maintaining the facility to withstand washout from a 100-year flood.

[Comment: Where maps for the National Flood Insurance Program produced by the Federal Insurance Administration (FIA) of the Federal Emergency Management Agency are available, they will normally be determinative of whether a facility is located within or outside of the 100-year floodplain. However, where the FIA map excludes an area (usually areas of the floodplain less than 200 feet in width), these areas must be considered and a determination made as to whether they are in the 100-year floodplain. Where FIA maps are not available for a proposed facility location, the owner or operator must use equivalent mapping techniques to determine whether the facility is within the 100-year floodplain, and if so located, what the 100-year flood elevation would be.]

(iv) Owners and operators of facilities located in the 100-year floodplain must provide the following information:

(A) Engineering analysis to indicate the various hydrodynamic and hydrostatic forces expected to result at the site as

consequence of a 100-year flood.

(B) Structural or other engineering studies showing the design of operational units (e.g., tanks, incinerators) and flood protection devices (e.g., floodwalls, dikes) at the facility and how these will prevent washout.

(C) If applicable, and in lieu of paragraphs (b)(11)(iv) (A) and (B) of this section, a detailed description of procedures to be followed to remove hazardous waste to safety before the facility is flooded, including:

(1) Timing of such movement relative to flood levels, including estimated time to move the waste, to show that such movement can be completed before floodwaters reach the facility.

(2) A description of the location(s) to which the waste will be moved and demonstration that those facilities will be eligible to receive hazardous waste in accordance with the regulations under Sections 270 and 264 through 266 of this regulation.

(3) The planned procedures, equipment, and personnel to be used and the means to ensure that such resources will be available in time for use.

(4) The potential for accidental discharges of the waste during movement.

(v) Existing facilities NOT in compliance with § 264.18(b) shall provide a plan showing how the facility will be brought into compliance and a schedule for compliance.

(12) An outline of both the introductory and continuing training programs by owners or operators to prepare persons to operate or maintain the HWM facility in a safe manner as required to demonstrate compliance with § 264.16. A brief description of how training will be designed to meet actual job tasks in accordance with requirements in § 264.16(a)(3).

(13) A copy of the closure plan and, where applicable, the post-closure plan required by §§ 264.112, 264.118, and 264.197. Include, where applicable, as part of the plans, specific requirements in §§ 264.178, 264.197, 264.228, 264.258, 264.280, 264.310, 264.351, 264.601, 264.603, and 264.1102.

(14) For hazardous waste disposal units that have been closed, documentation that notices required under § 264.119 have been filed.

(15) The most recent closure cost estimate for the

facility prepared in accordance with § 264.142 and a copy of the documentation required to demonstrate financial assurance under § 264.143. For a new facility, a copy of the required documentation may be submitted 60 days prior to the initial receipt of hazardous wastes, if that is later than the submission of the Part B.

(16) Where applicable, the most recent post-closure cost estimate for the facility prepared in accordance with § 264.144 plus a copy of the documentation required to demonstrate financial assurance under § 264.145. For a new facility, a copy of the required documentation may be submitted 60 days prior to the initial receipt of hazardous wastes, if that is later than the submission of the Part B.

(17) Where applicable, a copy of the insurance policy or other documentation which comprises compliance with the requirements of § 264.147. For a new facility, documentation showing the amount of insurance meeting the specification of § 264.147(a) and, if applicable, § 264.147(b), that the owner or operator plans to have in effect before initial receipt of hazardous waste for treatment, storage, or disposal. A request for a variance in the amount of required coverage, for a new or existing facility, may be submitted as specified in § 264.147(c).

(18) Where appropriate, proof of coverage by a State financial mechanism in compliance with § 264.149 or § 264.150.

(19) A topographic map showing a distance of 1000 feet around the facility at a scale of 2.5 centimeters (1 inch) equal to not more than 61.0 meters (200 feet). Contours must be shown on the map. The contour interval must be sufficient to clearly show the pattern of surface water flow in the vicinity of and from each operational unit of the facility. For example, contours with an interval of 1.5 meters (5 feet), if relief is greater than 6.1 meters (20 feet), or an interval of 0.6 meters (2 feet), if relief is less than 6.1 meters (20 feet). Owners and operators of HWM facilities located in mountainous areas should use large contour intervals to adequately show topographic profiles of facilities. The map shall clearly show the following:

(i) Map scale and date.

(ii) 100-year floodplain area.

(iii) Surface waters including intermittent streams.

(iv) Surrounding land uses (residential, commercial, agricultural, recreational).

(v) A wind rose (i.e., prevailing wind-speed and direction).

(vi) Orientation of the map (north arrow).

(vii) Legal boundaries of the HWM facility site.

- (viii) Access control (fences, gates).
- (ix) Injection and withdrawal wells both on-site and off-site.
- (x) Buildings; treatment, storage, or disposal operations; or other structure (recreation areas, runoff control systems, access and internal roads, storm, sanitary, and process sewerage systems, loading and unloading areas, fire control facilities, etc.)
- (xi) Barriers for drainage or flood control.
- (xii) Location of operational units within the HWM facility site, where hazardous waste is (or will be) treated, stored, or disposed (include equipment cleanup areas).
- (xiii) Location and description of all solid waste management units (SWMUs).

Note: For large HWM facilities the Department will allow the use of other scales on a case-by-case basis.

(20) Applicants may be required to submit such information as may be necessary to enable the Director to carry out his duties under other State and Federal laws as required in § 270.3 of this part.

(21) For land disposal facilities, if a case-by-case extension has been approved under 40 CFR 268.5 or a petition has been approved under § 268.6, a copy of the notice of approval for the extension or petition is required.

(22) A summary of the pre-application meeting, along with a list of attendees and their addresses, and copies of any written comments or materials submitted at the meeting, as required under § 270.9(a)(3).

(23) *A full description of all laboratory equipment, sampling procedures and analytical procedures which would be employed to identify, segregate or locate hazardous waste within the facility.*

(c) Additional information requirements. The following additional information regarding protection of groundwater is required from owners or operators of hazardous waste facilities containing a regulated unit except as provided in § 264.90(b) of this regulation:

(1) A summary of the ground-water monitoring data obtained during the interim status period under §§ 265.90 through 265.94, where applicable.

(2) Identification of the uppermost aquifer and aquifers hydraulically interconnected beneath the facility property, including ground-water flow direction and rate, and the basis for such identification (i.e., the information obtained from hydrogeologic investigations of the facility area).

(3) On the topographic map required under paragraph (b)(19) of this section, a delineation of the waste management area, the property boundary, the proposed "point of compliance" as defined under § 264.95, the proposed location of ground-water monitoring wells as required under § 264.97, and, to

the extent possible, the information required in paragraph (c)(2) of this section.

(4) A description of any plume of contamination that has entered the ground water from a regulated unit at the time that the application was submitted that:

(i) Delineates the extent of the plume on the topographic map required under paragraph (b)(19) of this section;

(ii) Identifies the concentration of each appendix IX, of Section 264 of this regulation, constituent throughout the plume or identifies the maximum concentrations of each appendix IX constituent in the plume.

(5) Detailed plans and an engineering report describing the proposed ground water monitoring program to be implemented to meet the requirements of § 264.97.

(6) If the presence of hazardous constituents has not been detected in the ground water at the time of permit application, the owner or operator must submit sufficient information, supporting data, and analyses to establish a detection monitoring program which meets the requirements of § 264.98. This submission must address the following items specified under § 264.98:

(i) A proposed list of indicator parameters, waste constituents, or reaction products that can provide a reliable indication of the presence of hazardous constituents in the ground water;

(ii) A proposed ground-water monitoring system;

(iii) Background values for each proposed monitoring parameter or constituent, or procedures to calculate such values; and

(iv) A description of proposed sampling, analysis and statistical comparison procedures to be utilized in evaluating ground-water monitoring data.

(7) If the presence of hazardous constituents has been detected in the ground water at the point of compliance at the time of the permit application, the owner or operator must submit sufficient information, supporting data, and analyses to establish a compliance monitoring program which meets the requirements of § 264.99. Except as provided in § 264.98(h)(5), the owner or operator must also submit an engineering feasibility plan for a corrective action program necessary to meet the requirements of § 264.100, unless the owner or operator obtains written authorization in advance from the Director to submit a proposed permit schedule for submittal of such a plan. To demonstrate compliance with § 264.99, the owner or operator must address the following items:

(i) A description of the wastes previously handled at the facility;

(ii) A characterization of the contaminated ground water, including concentrations of hazardous constituents;

(iii) A list of hazardous constituents for which compliance monitoring will be undertaken in accordance with §§ 264.97 and 264.99;

(iv) Proposed concentration limits for each hazardous constituent, based on the criteria set forth in § 264.94(a), including a justification for establishing any alternate concentration limits;

(v) Detailed plans and an engineering report describing the proposed ground-water monitoring system, in accordance with the requirements of § 264.97; and

(vi) A description of proposed sampling, analysis and statistical comparison procedures to be utilized in evaluating ground-water monitoring data.

(8) If hazardous constituents have been measured in the ground water which exceed the concentration limits established under § 264.94 Table 1, or if ground water monitoring conducted at the time of permit application under §§ 265.90 through 265.94 at the waste boundary indicates the presence of hazardous constituents from the facility in ground water over background concentrations, the owner or operator must submit sufficient information, supporting data, and analyses to establish a corrective action program which meets the requirements of § 264.100. However, an owner or operator is not required to submit information to establish a corrective action program if he demonstrates to the Director that alternate concentration limits will protect human health and the environment after considering the criteria listed in § 264.94(b). An owner or operator who is not required to establish a corrective action program for this reason must instead submit sufficient information to establish a compliance monitoring program which meets the requirements of § 264.99 and paragraph (c)(6) of this section. To demonstrate compliance with § 264.100, the owner or operator must address, at a minimum, the following items:

(i) A characterization of the contaminated ground water, including concentrations of hazardous constituents;

(ii) The concentration limit for each hazardous constituent found in the ground water as set forth in § 264.94;

(iii) Detailed plans and an engineering report describing the corrective action to be taken; and

(iv) A description of how the ground-water monitoring program will demonstrate the adequacy of the corrective action.

(v) The permit may contain a schedule for submittal of the information required in paragraphs (c)(8) (iii) and (iv) provided the owner or operator obtains written authorization from the Director prior to submittal of the complete permit application.

(d) Information requirements for solid waste management units.

(1) The following information is required for each solid waste management unit at a facility seeking a permit:

(i) The location of the unit on the topographic map required under paragraph (b)(19) of this section.

(ii) Designation of type of unit.

(iii) General dimensions and structural description (supply any available drawings).

(iv) When the unit was operated.

(v) Specification of all wastes that have been managed at the unit, to the extent available.

(2) The owner or operator of any facility containing one or more solid waste management units must submit all available information pertaining to any release of hazardous wastes or hazardous constituents from such unit or units.

(3) The owner/operator must conduct and provide the results of sampling and analysis of groundwater, land surface, and subsurface strata, surface water, or air, which may include the installation of wells, where the Director ascertains it is necessary to complete a RCRA Facility Assessment that will determine if a more complete investigation is necessary.

§ 270.15 Specific Part B information requirements for containers.

Except as otherwise provided in § 264.170, owners or operators of facilities that store containers of hazardous waste must provide the following additional information:

(a) A description of the containment system to demonstrate compliance with § 264.175. Show at least the following:

(1) Basic design parameters, dimensions, and materials of construction.

(2) How the design promotes drainage or how containers are kept from contact with standing liquids in the containment system.

(3) Capacity of the containment system relative to the number and volume of containers to be stored.

(4) Provisions for preventing or managing run-on.

(5) How accumulated liquids can be analyzed and removed to prevent overflow.

(b) For storage areas that store containers holding wastes that do not contain free liquids, a demonstration of compliance

with § 264.175(c), including:

(1) Test procedures and results or other documentation or information to show that the wastes do not contain free liquids; and

(2) A description of how the storage area is designed or operated to drain and remove liquids or how containers are kept from contact with standing liquids.

(c) Sketches, drawings, or data demonstrating compliance with § 264.176 (location of buffer zone and containers holding ignitable or reactive wastes) and § 264.177(c) (location of incompatible wastes), where applicable.

(d) Where incompatible wastes are stored or otherwise managed in containers, a description of the procedures used to ensure compliance with §§ 264.177 (a) and (b), and 264.17 (b) and (c).

(e) Information on air emission control equipment as required in § 270.27.

§ 270.16 Specific Part B information requirements for tank systems.

Except as otherwise provided in § 264.190, owners and operators of facilities that use tanks to store or treat hazardous waste must provide the following additional information:

(a) A written assessment that is reviewed and certified by an independent, qualified, Arkansas-registered professional engineer as to the structural integrity and suitability for handling hazardous waste of each tank system, as required under §§ 264.191 and 264.192;

(b) Dimensions and capacity of each tank;

(c) Description of feed systems, safety cutoff, bypass systems, and pressure controls (e.g., vents);

(d) A diagram of piping, instrumentation, and process flow for each tank system;

(e) A description of materials and equipment used to provide external corrosion protection, as required under § 264.192(a)(3)(ii);

(f) For new tank systems, a detailed description of how the tank system(s) will be installed in compliance with § 264.192 (b), (c), (d), and (e);

(g) Detailed plans and description of how the secondary containment system for each tank system is or will be designed, constructed, and operated to meet the requirements of § 264.193 (a), (b), (c), (d), (e), and (f);

(h) For tank systems for which a variance from the requirements of § 264.193 is sought (as provided by §§ 264.193(g)):

(1) Detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous waste or hazardous constituents into the ground water or surface water during the life of the facility, or

(2) A detailed assessment of the substantial present

or potential hazards posed to human health or the environment should a release enter the environment.

(i) Description of controls and practices to prevent spills and overflows, as required under § 264.194(b); and

(j) For tank systems in which ignitable, reactive, or incompatible wastes are to be stored or treated, a description of how operating procedures and tank system and facility design will achieve compliance with the requirements of §§ 264.198 and 264.199.

(k) Information on air emission control equipment as required in § 270.27.

§ 270.17 Specific Part B information requirements for surface impoundments.

Except as otherwise provided in § 264.1, owners and operators of facilities that store, treat or dispose of hazardous waste in surface impoundments must provide the following additional information:

(a) A list of the hazardous wastes placed or to be placed in each surface impoundment;

(b) Detailed plans and an engineering report describing how the surface impoundment is designed and is or will be constructed, operated, and maintained to meet the requirements of §§ 264.19, 264.221, 264.222, and 264.223 of this regulation, addressing the following items:

(1) The liner system (except for an existing portion of a surface impoundment). If an exemption from the requirement for a liner is sought as provided by § 264.221(b), submit detailed plans and engineering and hydrogeologic reports, as appropriate, describing alternate design and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituents into the ground water or surface water at any future time;

(2) The double liner and leak (leachate) detection, collection, and removal system, if the surface impoundment must meet the requirements of § 264.221(c) of this regulation. If an exemption from the requirements for double liners and a leak detection, collection, and removal system or alternative design is sought as provided by § 264.221(d), (e), or (f) of this regulation, submit appropriate information;

(3) If the leak detection system is located in a saturated zone, submit detailed plans and an engineering report explaining the leak detection system design and operation, and the location of the saturated zone in relation to the leak detection system;

(4) The construction quality assurance (CQA) plan if required under § 264.19 of this regulation;

(5) Proposed action leakage rate, with rationale, if required under § 264.222 of this regulation, and response action plan, if required under § 264.223 of

this regulation;

- (6) Prevention of overtopping; and
- (7) Structural integrity of dikes;

(c) A description of how each surface impoundment, including the double liner system, leak detection system, cover system, and appurtenances for control of overtopping, will be inspected in order to meet the requirements of § 264.226(a), (b), and (d) of this regulation. This information must be included in the inspection plan submitted under § 270.14(b)(5);

(d) A certification by a qualified engineer which attests to the structural integrity of each dike, as required under § 264.226(c). For new units, the owner or operator must submit a statement by a qualified engineer that he will provide such a certification upon completion of construction in accordance with the plans and specifications;

(e) A description of the procedure to be used for removing a surface impoundment from service, as required under § 264.227(b) and (c). This information should be included in the contingency plan submitted under § 270.14(b)(7);

(f) A description of how hazardous waste residues and contaminated materials will be removed from the unit at closure, as required under § 264.228(a)(1). For any wastes not to be removed from the unit upon closure, the owner or operator must submit detailed plans and an engineering report describing how § 264.228(a)(2) and (b) will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan submitted under § 270.14(b)(13);

(g) If ignitable or reactive wastes are to be placed in a surface impoundment, an explanation of how § 264.229 will be complied with;

(h) If incompatible wastes, or incompatible wastes and materials will be placed in a surface impoundment, an explanation of how § 264.230 will be complied with.

(i) A waste management plan for EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, and FO27 describing how the surface impoundment is or will be designed, constructed, operated, and maintained to meet the requirements of § 264.231. This submission must address the following items as specified in § 264.231:

- (1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;
- (2) The attenuative properties of underlying and surrounding soils or other materials;
- (3) The mobilizing properties of other materials co-disposed with these wastes; and
- (4) The effectiveness of additional treatment, design, or monitoring techniques.

(j) Information on air emission control equipment as required in § 270.27.

§ 270.18 Specific Part B information requirements for waste piles.

Except as otherwise provided in § 264.1, owners and operators of facilities that store or treat hazardous waste in waste piles must provide the following additional information:

(a) A list of hazardous wastes placed or to be placed in each waste pile;

(b) If an exemption is sought to § 264.251 and Subsection F of Section 264 as provided by § 264.250(c) or § 264.90(b)(2), an explanation of how the standards of § 264.250(c) will be complied with or detailed plans and an engineering report describing how the requirements of § 264.90(b)(2) will be met.

(c) Detailed plans and an engineering report describing how the waste pile is designed and is or will be constructed, operated, and maintained to meet the requirements of §§ 264.19, 264.251, 264.252, and 264.253 of this regulation, addressing the following items:

(1)(i) The liner system (except for an existing portion of a waste pile), if the waste pile must meet the requirements of § 264.251(a) of this regulation. If an exemption from the requirement for a liner is sought as provided by § 264.251(b) of this regulation, submit detailed plans, and engineering and hydrogeological reports, as appropriate, describing alternate designs and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituents into the ground water or surface water at any future time;

(ii) The double liner and leak (leachate) detection, collection, and removal system, if the waste pile must meet the requirements of § 264.251(c) of this regulation. If an exemption from the requirements for double liners and a leak detection, collection, and removal system or alternative design is sought as provided by § 264.251(d), (e), or (f) of this regulation, submit appropriate information;

(iii) If the leak detection system is located in a saturated zone, submit detailed plans and an engineering report explaining the leak detection system design and operation, and the location of the saturated zone in relation to the leak detection system;

(iv) The construction quality assurance (CQA) plan if required under § 264.19 of this regulation;

(v) Proposed action leakage rate, with rationale, if required under § 264.252 of this regulation, and response action plan, if required under § 264.253 of this regulation;

(2) Control of run-on;

(3) Control of run-off;

(4) Management of collection and holding units associated with run-on and run-off control systems; and

(5) Control of wind dispersal of particulate matter, where applicable;

(d) A description of how each waste pile, including the double liner system, leachate collection and removal system, leak detection system, cover system, and appurtenances for control of run-on and run-off, will be inspected in order to meet the requirements of § 264.254(a), (b), and (c) of this regulation. This information must be included in the inspection plan submitted under § 270.14(b)(5);

(e) If treatment is carried out on or in the pile, details of the process and equipment used, and the nature and quality of the residuals;

(f) If ignitable or reactive wastes are to be placed in a waste pile, an explanation of how the requirements of § 264.256 will be complied with;

(g) If incompatible wastes, or incompatible wastes and materials will be placed in a waste pile, an explanation of how § 264.257 will be complied with;

(h) A description of how hazardous waste residues and contaminated materials will be removed from the waste pile at closure, as required under § 264.258(a). For any waste not to be removed from the waste pile upon closure, the owner or operator must submit detailed plans and an engineering report describing how § 264.310 (a) and (b) will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan submitted under § 270.14(b)(13).

(i) A waste management plan for EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, and FO27 describing how a waste pile that is not enclosed (as defined in § 264.250(c)) is or will be designed, constructed, operated, and maintained to meet the requirements of § 264.259. This submission must address the following items as specified in § 264.259:

(1) The volume, physical, and chemical characteristics of the wastes to be disposed in the waste pile, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

§ 270.19 Specific Part B information requirements for incinerators.

Except as § 264.340 of this regulation and § 270.19(e) provide otherwise, owners and operators of facilities that incinerate hazardous waste must fulfill the requirements of (a), (b), or (c) of this section.

(a) When seeking an exemption under § 264.340 (b) or (c) of this regulation (ignitable, corrosive, or reactive wastes only):

(1) Documentation that the waste is listed as a hazardous waste in Section 261, Subsection D of this regulation, solely because it is ignitable (Hazard Code I) or corrosive (Hazard Code C) or both; or

(2) Documentation that the waste is listed as a hazardous waste in Section 261, Subsection D of this regulation, solely because it is reactive (Hazard Code R) for characteristics other than those listed in § 261.23(a) (4) and (5) of this regulation, and will not be burned when other hazardous wastes are present in the combustion zone; or

(3) Documentation that the waste is a hazardous waste solely because it possesses the characteristic of ignitability, corrosivity, or both, as determined by the tests for characteristics of hazardous waste under Section 261, Subsection C of this regulation; or

(4) Documentation that the waste is a hazardous waste solely because it possesses the reactivity characteristics listed in § 261.23(a) (1), (2), (3), (6), (7), or (8) of this regulation, and that it will not be burned when other hazardous wastes are present in the combustion zone; or

(b) Submit a trial burn plan or the results of a trial burn, including all required determinations, in accordance with § 270.62; or

(c) In lieu of a trial burn, the applicant may submit the following information:

(1) An analysis of each waste or mixture of wastes to be burned including:

(i) Heat value of the waste in the form and composition in which it will be burned.

(ii) Viscosity (if applicable), or description of physical form of the waste.

(iii) An identification of any hazardous organic constituents listed in Section 261, appendix VIII, of this regulation, which are present in the waste to be burned, except that the applicant need not analyze for constituents listed in Section 261, appendix VIII, of this regulation which would reasonably not be expected to be found in the waste. The constituents excluded from analysis must be identified and the basis for their exclusion stated. The waste analysis must rely on appropriate analytical techniques.

(iv) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by the analytical methods specified in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in § 260.11 of this regulation and § 270.6.

(v) A quantification of those hazardous constituents in the waste which may be designated as POHC's based on data submitted from other trial or operational burns which

demonstrate compliance with the performance standards in § 264.343 of this regulation.

(2) A detailed engineering description of the incinerator, including:

- (i) Manufacturer's name and model number of incinerator.
- (ii) Type of incinerator.
- (iii) Linear dimension of incinerator unit including cross sectional area of combustion chamber.
- (iv) Description of auxiliary fuel system (type/feed).
- (v) Capacity of prime mover.
- (vi) Description of automatic waste feed cutoff system(s).
- (vii) Stack gas monitoring and pollution control monitoring system.
- (viii) Nozzle and burner design.
- (ix) Construction materials.
- (x) Location and description of temperature, pressure, and flow indicating devices and control devices.

(3) A description and analysis of the waste to be burned compared with the waste for which data from operational or trial burns are provided to support the contention that a trial burn is not needed. The data should include those items listed in paragraph (c)(1) of this section. This analysis should specify the POHC's which the applicant has identified in the waste for which a permit is sought, and any differences from the POHC's in the waste for which burn data are provided.

(4) The design and operating conditions of the incinerator unit to be used, compared with that for which comparative burn data are available.

(5) A description of the results submitted from any previously conducted trial burn(s) including:

- (i) Sampling and analysis techniques used to calculate performance standards in § 264.343 of this regulation,
- (ii) Methods and results of monitoring temperatures, waste feed rates, carbon monoxide, and an appropriate indicator of combustion gas velocity (including a statement concerning the precision and accuracy of this measurement),

(6) The expected incinerator operation information to demonstrate compliance with §§ 264.343 and 264.345 of this regulation including:

- (i) Expected carbon monoxide (CO) level in the stack exhaust gas.
- (ii) Waste feed rate.
- (iii) Combustion zone temperature.
- (iv) Indication of combustion gas velocity.
- (v) Expected stack gas volume, flow rate, and temperature.
- (vi) Computed residence time for waste in

the combustion zone.

(vii) Expected hydrochloric acid removal efficiency.

(viii) Expected fugitive emissions and their control procedures.

(ix) Proposed waste feed cut-off limits based on the identified significant operating parameters.

(7) Such supplemental information as the Director finds necessary to achieve the purposes of this paragraph.

(8) Waste analysis data, including that submitted in paragraph (c)(1) of this section, sufficient to allow the Director to specify as permit Principal Organic Hazardous Constituents (permit POHC's) those constituents for which destruction and removal efficiencies will be required.

(d) The Director may approve a permit application without a trial burn if he finds that:

(1) The wastes are sufficiently similar; and

(2) The incinerator units are sufficiently similar, and the data from other trial burns are adequate to specify (under § 264.345 of this regulation) operating conditions that will ensure that the performance standards in § 264.343 of this regulation will be met by the incinerator.

(e) When an owner or operator of a hazardous waste incineration unit becomes subject to RCRA permit requirements after October 12, 2005, or when an owner or operator of an existing hazardous waste incineration unit demonstrates compliance with the air emission standards and limitations in 40 CFR Part 63, subpart EEE (i.e., by conducting a comprehensive performance test and submitting a Notification of Compliance under 40 CFR §§ 63.1207(j) and §§ 63.1210(d) documenting compliance with all applicable requirements of 40 CFR Part 63, Subpart EEE), the requirements of this section do not apply, except those provisions the Director determines are necessary to ensure compliance with §§ 264.345(a) and 264.345(c) of this regulation if you elect to comply with § 270.235(a)(1)(i) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events. Nevertheless, the Director may apply the provisions of this section, on a case-by-case basis, for purposes of information collection in accordance with §§ 270.10(n), 270.32(b)(2), and 270.32(b)(3).

§ 270.20 Specific Part B information requirements for land treatment facilities.

Except as otherwise provided in § 264.1, owners and operators of facilities that use land treatment to dispose of hazardous waste must provide the following additional information:

(a) A description of plans to conduct a treatment demonstration as required under § 264.272. The description must include the following information;

(1) The wastes for which the demonstration will be made and the potential hazardous constituents in the waste;

(2) The data sources to be used to make the demonstration (e.g., literature, laboratory data, field data, or operating data);

(3) Any specific laboratory or field test that will be conducted, including:

(i) The type of test (e.g., column leaching, degradation);

(ii) Materials and methods, including analytical procedures;

(iii) Expected time for completion;

(iv) Characteristics of the unit that will be simulated in the demonstration, including treatment zone characteristics, climatic conditions, and operating practices.

(b) A description of a land treatment program, as required under § 264.271. This information must be submitted with the plans for the treatment demonstration, and updated following the treatment demonstration. The land treatment program must address the following items:

(1) The wastes to be land treated;

(2) Design measures and operating practices necessary to maximize treatment in accordance with § 264.273(a) including:

(i) Waste application method and rate;

(ii) Measures to control soil pH;

(iii) Enhancement of microbial or chemical reactions;

(iv) Control of moisture content;

(3) Provisions for unsaturated zone monitoring, including:

(i) Sampling equipment, procedures, and frequency;

(ii) Procedures for selecting sampling locations;

(iii) Analytical procedures;

(iv) Chain of custody control;

(v) Procedures for establishing background values;

(vi) Statistical methods for interpreting results;

(vii) The justification for any hazardous constituents recommended for selection as principal hazardous constituents, in accordance with the criteria for such selection in § 264.278(a);

(4) A list of hazardous constituents reasonably expected to be in, or derived from, the wastes to be land treated based on waste analysis performed pursuant to § 264.13;

(5) The proposed dimensions of the treatment zone;

(c) A description of how the unit is or will be designed, constructed, operated, and maintained in order to meet the requirements of § 264.273. This submission must address the

following items:

(1) Control of run-on;

(2) Collection and control of run-off;

(3) Minimization of run-off of hazardous constituents from the treatment zone;

(4) Management of collection and holding facilities associated with run-on and run-off control systems;

(5) Periodic inspection of the unit. This information should be included in the inspection plan submitted under § 270.14(b)(5);

(6) Control of wind dispersal of particulate matter, if applicable;

(d) If food-chain crops are to be grown in or on the treatment zone of the land treatment unit, a description of how the demonstration required under § 264.276(a) will be conducted including:

(1) Characteristics of the food-chain crop for which the demonstration will be made.

(2) Characteristics of the waste, treatment zone, and waste application method and rate to be used in the demonstration;

(3) Procedures for crop growth, sample collection, sample analysis, and data evaluation;

(4) Characteristics of the comparison crop including the location and conditions under which it was or will be grown;

(e) If food-chain crops are to be grown, and cadmium is present in the land-treated waste, a description of how the requirements of § 264.276(b) will be complied with;

(f) A description of the vegetative cover to be applied to closed portions of the facility, and a plan for maintaining such cover during the post-closure care period, as required under § 264.280(a)(8) and § 264.280(c)(2). This information should be included in the closure plan and, where applicable, the post-closure care plan submitted under § 270.14(b)(13);

(g) If ignitable or reactive wastes will be placed in or on the treatment zone, an explanation of how the requirements of § 264.281 will be complied with;

(h) If incompatible wastes, or incompatible wastes and materials, will be placed in or on the same treatment zone, an explanation of how § 264.282 will be complied with.

(i) A waste management plan for EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, and FO27 describing how a land treatment facility is or will be designed, constructed, operated, and maintained to meet the requirements of § 264.283. This submission must address the following items as specified in § 264.283:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment,

design, or monitoring techniques.

§ 270.21 Specific Part B information requirements for landfills.

Except as otherwise provided in § 264.1, owners and operators of facilities that dispose of hazardous waste in landfills must provide the following additional information:

(a) A list of the hazardous wastes placed or to be placed in each landfill or landfill cell;

(b) Detailed plans and an engineering report describing how the landfill is designed and is or will be constructed, operated, and maintained to meet the requirements of §§ 264.19, 264.301, 264.302, and 264.303 of this regulation, addressing the following items:

(1)(i) The liner system (except for an existing portion of a landfill), if the landfill must meet the requirements of § 264.301(a) of this regulation. If an exemption from the requirement for a liner is sought as provided by § 264.301(b) of this regulation, submit detailed plans, and engineering and hydrogeological reports, as appropriate, describing alternate designs and operating practices that will, in conjunction with location aspects, prevent the migration of any hazardous constituents into the ground water or surface water at any future time;

(ii) The double liner and leak (leachate) detection, collection, and removal system, if the landfill must meet the requirements of § 264.301(c) of this regulation. If an exemption from the requirements for double liners and a leak detection, collection, and removal system or alternative design is sought as provided by § 264.301(d), (e), or (f) of this regulation, submit appropriate information;

(iii) If the leak detection system is located in a saturated zone, submit detailed plans and an engineering report explaining the leak detection system design and operation, and the location of the saturated zone in relation to the leak detection system;

(iv) The construction quality assurance (CQA) plan if required under § 264.19 of this regulation;

(v) Proposed action leakage rate, with rationale, if required under § 264.302 of this regulation, and response action plan, if required under § 264.303 of this regulation;

(2) Control of run-on;

(3) Control of run-off;

(4) Management of collection and holding facilities associated with run-on and run-off control systems; and

(5) Control of wind dispersal of particulate matter, where applicable;

(c) A description of how each landfill, including the

double liner system, leachate collection and removal system, leak detection system, cover system, and appurtenances for control of run-on and run-off, will be inspected in order to meet the requirements of § 264.303(a), (b), and (c) of this regulation. This information must be included in the inspection plan submitted under § 270.14(b)(5);

(d) A description of how each landfill, including the liner and cover systems, will be inspected in order to meet the requirements of § 264.303 (a) and (b). This information should be included in the inspection plan submitted under § 270.14(b)(5).

(e) Detailed plans and an engineering report describing the final cover which will be applied to each landfill or landfill cell at closure in accordance with § 264.310(a), and a description of how each landfill will be maintained and monitored after closure in accordance with § 264.310(b). This information should be included in the closure and post-closure plans submitted under § 270.14(b)(13).

(f) If ignitable or reactive wastes will be landfilled, an explanation of how the standards of § 264.312 will be complied with;

(g) If incompatible wastes, or incompatible wastes and materials will be landfilled, an explanation of how § 264.313 will be complied with;

(h) If bulk or non-containerized liquid waste or wastes containing free liquids is to be landfilled prior to May 8, 1985, an explanation of how the requirements of § 264.314(a) will be complied with;

(i) If containers of hazardous waste are to be landfilled, an explanation of how the requirements of § 264.315 or § 264.316, as applicable, will be complied with.

(j) A waste management plan for EPA Hazardous Waste Nos. FO20, FO21, FO22, FO23, FO26, and FO27 describing how a landfill is or will be designed, constructed, operated, and maintained to meet the requirements of § 264.317. This submission must address the following items as specified in § 264.317:

(1) The volume, physical, and chemical characteristics of the wastes, including their potential to migrate through soil or to volatilize or escape into the atmosphere;

(2) The attenuative properties of underlying and surrounding soils or other materials;

(3) The mobilizing properties of other materials co-disposed with these wastes; and

(4) The effectiveness of additional treatment, design, or monitoring techniques.

§ 270.22 Specific Part B information requirements for boilers and industrial furnaces burning hazardous waste.

When an owner or operator of a cement kiln, or lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace becomes subject to RCRA permit requirements after October 12, 2005, or when an

owner or operator of an existing cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace demonstrates compliance with the air emission standards and limitations in 40 CFR Part 63, subpart EEE, (i.e., by conducting a comprehensive performance test and submitting a Notification of Compliance under 40 CFR Part 63.1207(j) and 63.121(d) documenting compliance with all applicable requirements of part 63, subpart EEE,), the requirements of this section do not apply. The requirements of this section do apply, however, if the Director determines certain provisions are necessary to ensure compliance with §§ 266.102(e)(1) and 266.102(e)(2)(iii) of this Regulation if you elect to comply with § 270.235(a)(1)(i) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events; or if you are an area source and elect to comply with the §§ 266.105, 266.106, and 266.107 standards and associated requirements for particulate matter, hydrogen chloride and chlorine gas, and non-mercury metals; or the Director determines certain provisions apply, on a case-by-case basis, for purposes of information collection in accordance with §§ 270.10(k), 270.10(l), 270.32(b)(2), and 270.32(b)(3).

(a) Trial burns — (1) General. Except as provided below, owners and operators that are subject to the standards to control organic emissions provided by § 266.104 of this regulation, standards to control particulate matter provided by § 266.105 of this regulation, standards to control metals emissions provided by § 266.106 of this regulation, or standards to control hydrogen chloride or chlorine gas emissions provided by § 266.107 of this regulation must conduct a trial burn to demonstrate conformance with those standards and must submit a trial burn plan or the results of a trial burn, including all required determinations, in accordance with § 270.66.

(i) A trial burn to demonstrate conformance with a particular emission standard may be waived under provisions of §§ 266.104 through 266.107 of this regulation and paragraphs (a)(2) through (a)(5) of this section; and

(ii) The owner or operator may submit data in lieu of a trial burn, as prescribed in paragraph (a)(6) of this section.

(2) Waiver of trial burn for DRE-(i) Boilers operated under special operating requirements. When seeking to be permitted under §§ 266.104(a)(4) and 266.110 of this regulation that automatically waive the DRE trial burn, the owner or operator of a boiler must submit documentation that the boiler operates under the special operating requirements provided by § 266.110 of this regulation.

(ii) Boilers and industrial furnaces burning low risk waste. When seeking to be permitted under the provisions for low risk waste provided by §§ 266.104(a)(5) and 266.109(a) of this regulation that waive the DRE trial burn, the owner or operator must submit:

(A) Documentation that the device is operated in conformance with the requirements of § 266.109(a)(1) of this regulation.

(B) Results of analyses of each waste to be burned, documenting the concentrations of nonmetal compounds listed in appendix VIII of Section 261 of this regulation, except for those constituents that would reasonably not be expected to be in the waste. The constituents excluded from analysis must be identified and the basis for their exclusion explained. The analysis must rely on analytical techniques specified in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (incorporated by reference, see § 260.11).

(C) Documentation of hazardous waste firing rates and calculations of reasonable, worst-case emission rates of each constituent identified in paragraph (a)(2)(ii)(B) of this section using procedures provided by § 266.109(a)(2)(ii) of this regulation.

(D) Results of emissions dispersion modeling for emissions identified in paragraphs (a)(2)(ii)(C) of this section using modeling procedures prescribed by § 266.106(h) of this regulation. The Director will review the emission modeling conducted by the applicant to determine conformance with these procedures. The Director will either approve the modeling or determine that alternate or supplementary modeling is appropriate.

(E) Documentation that the maximum annual average ground level concentration of each constituent identified in paragraph (a)(2)(ii)(B) of this section quantified in conformance with paragraph (a)(2)(ii)(D) of this section does not exceed the allowable ambient level established in appendices IV or V of Section 266. The acceptable ambient concentration for emitted constituents for which a specific Reference Air Concentration has not been established in appendix IV or Risk-Specific Dose has not been established in appendix V is 0.1 micrograms per cubic meter, as noted in the footnote to appendix IV.

(3) Waiver of trial burn for metals. When seeking to be permitted under the Tier I (or adjusted Tier I) metals feed rate screening limits provided by § 266.106 (b) and (e) of this regulation that control metals emissions without requiring a trial burn, the owner or operator must submit:

(i) Documentation of the feed rate of

hazardous waste, other fuels, and industrial furnace feed stocks;

(ii) Documentation of the concentration of each metal controlled by § 266.106 (b) or (e) of this regulation in the hazardous waste, other fuels, and industrial furnace feedstocks, and calculations of the total feed rate of each metal;

(iii) Documentation of how the applicant will ensure that the Tier I feed rate screening limits provided by § 266.106 (b) or (e) of this regulation will not be exceeded during the averaging period provided by that paragraph;

(iv) Documentation to support the determination of the terrain-adjusted effective stack height, good engineering practice stack height, terrain type, and land use as provided by § 266.106 (b)(3) through (b)(5) of this regulation;

(v) Documentation of compliance with the provisions of § 266.106(b)(6), if applicable, for facilities with multiple stacks;

(vi) Documentation that the facility does not fail the criteria provided by § 266.106(b)(7) for eligibility to comply with the screening limits; and

(vii) Proposed sampling and metals analysis plan for the hazardous waste, other fuels, and industrial furnace feed stocks.

(4) Waiver of trial burn for particulate matter. When seeking to be permitted under the low risk waste provisions of § 266.109(b) which waives the particulate standard (and trial burn to demonstrate conformance with the particulate standard), applicants must submit documentation supporting conformance with paragraphs (a)(2)(ii) and (a)(3) of this section.

(5) Waiver of trial burn for HCl and Cl₂. When seeking to be permitted under the Tier I (or adjusted Tier I) feed rate screening limits for total chloride and chlorine provided by § 266.107 (b)(1) and (e) of this regulation that control emissions of hydrogen chloride (HCl) and chlorine gas (Cl₂) without requiring a trial burn, the owner or operator must submit:

(i) Documentation of the feed rate of hazardous waste, other fuels, and industrial furnace feed stocks;

(ii) Documentation of the levels of total chloride and chlorine in the hazardous waste, other fuels, and industrial furnace feedstocks, and calculations of the total feed rate of total chloride and chlorine;

(iii) Documentation of how the applicant will ensure that the Tier I (or adjusted Tier I) feed rate screening limits provided by § 266.107 (b)(1) or (e) of this regulation will not

be exceeded during the averaging period provided by that paragraph;

(iv) Documentation to support the determination of the terrain-adjusted effective stack height, good engineering practice stack height, terrain type, and land use as provided by § 266.107(b)(3) of this regulation;

(v) Documentation of compliance with the provisions of § 266.107(b)(4), if applicable, for facilities with multiple stacks;

(vi) Documentation that the facility does not fail the criteria provided by § 266.107(b)(3) for eligibility to comply with the screening limits; and

(vii) Proposed sampling and analysis plan for total chloride and chlorine for the hazardous waste, other fuels, and industrial furnace feedstocks.

(6) Data in lieu of trial burn. The owner or operator may seek an exemption from the trial burn requirements to demonstrate conformance with §§ 266.104 through 266.107 of this regulation and § 270.66 by providing the information required by § 270.66 from previous compliance testing of the device in conformance with § 266.103 of this regulation, or from compliance testing or trial or operational burns of similar boilers or industrial furnaces burning similar hazardous wastes under similar conditions. If data from a similar device is used to support a trial burn waiver, the design and operating information required by § 270.66 must be provided for both the similar device and the device to which the data is to be applied, and a comparison of the design and operating information must be provided. The Director shall approve a permit application without a trial burn if he finds that the hazardous wastes are sufficiently similar, the devices are sufficiently similar, the operating conditions are sufficiently similar, and the data from other compliance tests, trial burns, or operational burns are adequate to specify (under § 266.102 of this regulation) operating conditions that will ensure conformance with § 266.102(c) of this regulation. In addition, the following information shall be submitted:

(i) For a waiver from any trial burn:

(A) A description and analysis of the hazardous waste to be burned compared with the hazardous waste for which data from compliance testing, or operational or trial burns are provided to support the contention that a trial burn is not needed;

(B) The design and operating conditions of the boiler or industrial furnace to be used, compared with that for which comparative burn data are available; and

(C) Such supplemental information as

the Director finds necessary to achieve the purposes of this paragraph.

(ii) For a waiver of the DRE trial burn, the basis for selection of POHCs used in the other trial or operational burns which demonstrate compliance with the DRE performance standard in § 266.104(a) of this regulation. This analysis should specify the constituents in appendix VIII, Section 261 of this regulation, that the applicant has identified in the hazardous waste for which a permit is sought, and any differences from the POHCs in the hazardous waste for which burn data are provided.

(b) Alternative HC limit for industrial furnaces with organic matter in raw materials. Owners and operators of industrial furnaces requesting an alternative HC limit under § 266.104(f) of this regulation shall submit the following information at a minimum:

(1) Documentation that the furnace is designed and operated to minimize HC emissions from fuels and raw materials;

(2) Documentation of the proposed baseline flue gas HC (and CO) concentration, including data on HC (and CO) levels during tests when the facility produced normal products under normal operating conditions from normal raw materials while burning normal fuels and when not burning hazardous waste;

(3) Test burn protocol to confirm the baseline HC (and CO) level including information on the type and flow rate of all feedstreams, point of introduction of all feedstreams, total organic carbon content (or other appropriate measure of organic content) of all nonfuel feedstreams, and operating conditions that affect combustion of fuel(s) and destruction of hydrocarbon emissions from nonfuel sources;

(4) Trial burn plan to:

(i) Demonstrate that flue gas HC (and CO) concentrations when burning hazardous waste do not exceed the baseline HC (and CO) level; and

(ii) Identify the types and concentrations of organic compounds listed in appendix VIII, Section 261 of this regulation, that are emitted when burning hazardous waste in conformance with procedures prescribed by the Director;

(5) Implementation plan to monitor over time changes in the operation of the facility that could reduce the baseline HC level and procedures to periodically confirm the baseline HC level; and

(6) Such other information as the Director finds necessary to achieve the purposes of this paragraph.

(c) Alternative metals implementation approach. When seeking to be permitted under an alternative metals implementation approach under § 266.106(f) of this regulation, the owner or operator must submit documentation specifying how the approach ensures compliance with the

metals emissions standards of § 266.106(c) or (d) and how the approach can be effectively implemented and monitored. Further, the owner or operator shall provide such other information that the Director finds necessary to achieve the purposes of this paragraph.

(d) Automatic waste feed cutoff system. Owners and operators shall submit information describing the automatic waste feed cutoff system, including any pre-alarm systems that may be used.

(e) Direct transfer. Owners and operators that use direct transfer operations to feed hazardous waste from transport vehicles (containers, as defined in § 266.111 of this regulation) directly to the boiler or industrial furnace shall submit information supporting conformance with the standards for direct transfer provided by § 266.111 of this regulation.

(f) Residues. Owners and operators that claim that their residues are excluded from regulation under the provisions of § 266.112 of this regulation must submit information adequate to demonstrate conformance with those provisions.

§ 270.23 Specific Part B information requirements for miscellaneous units.

Except as otherwise provided in § 264.600, owners and operators of facilities that treat, store, or dispose of hazardous waste in miscellaneous units must provide the following additional information:

(a) A detailed description of the unit being used or proposed for use, including the following:

(1) Physical characteristics, materials of construction, and dimensions of the unit;

(2) Detailed plans and engineering reports describing how the unit will be located, designed, constructed, operated, maintained, monitored, inspected, and closed to comply with the requirements of §§ 264.601 and 264.602; and

(3) For disposal units, a detailed description of the plans to comply with the post-closure requirements of § 264.603.

(b) Detailed hydrologic, geologic, and meteorologic assessments and land-use maps for the region surrounding the site that address and ensure compliance of the unit with each factor in the environmental performance standards of § 264.601. If the applicant can demonstrate that he does not violate the environmental performance standards of § 264.601 and the Director agrees with such demonstration, preliminary hydrologic, geologic, and meteorologic assessments will suffice.

(c) Information on the potential pathways of exposure of humans or environmental receptors to hazardous waste or hazardous constituents and on the potential magnitude and nature of such exposures.

(d) For any treatment unit, a report on a demonstration of the effectiveness of the treatment based on laboratory or field data.

(e) Any additional information determined by the Director

to be necessary for evaluation of compliance of the unit with the environmental performance standards of § 264.601.

§ 270.24 Specific Part B information requirements for process vents.

Except as otherwise provided in § 264.1, owners and operators of facilities that have process vents to which Subsection AA of Section 264 applies must provide the following additional information:

(a) For facilities that cannot install a closed-vent system and control device to comply with the provisions of Section 264 Subsection AA on the effective date that the facility becomes subject to the provisions of Sections 264 or 265 Subsection AA, an implementation schedule as specified in § 264.1033(a)(2).

(b) Documentation of compliance with the process vent standards in § 264.1032, including:

(1) Information and data identifying all affected process vents, annual throughput and operating hours of each affected unit, estimated emission rates for each affected vent and for the overall facility (i.e., the total emissions for all affected vents at the facility), and the approximate location within the facility of each affected unit (e.g., identify the hazardous waste management units on a facility plot plan).

(2) Information and data supporting estimates of vent emissions and emission reduction achieved by add-on control devices based on engineering calculations or source tests. For the purpose of determining compliance, estimates of vent emissions and emission reductions must be made using operating parameter values (e.g., temperatures, flow rates, or concentrations) that represent the conditions that exist when the waste management unit is operating at the highest load or capacity level reasonably expected to occur.

(3) Information and data used to determine whether or not a process vent is subject to the requirements of § 264.1032.

(c) Where an owner or operator applies for permission to use a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater, condenser, or carbon adsorption system to comply with the requirements of § 264.1032, and chooses to use test data to determine the organic removal efficiency or the total organic compound concentration achieved by the control device, a performance test plan as specified in § 264.1035(b)(3).

(d) Documentation of compliance with § 264.1033, including:

(1) A list of all information references and sources used in preparing the documentation.

(2) Records, including the dates, of each compliance test required by § 264.1033(k).

(3) A design analysis, specifications, drawings,

schematics, and piping and instrumentation diagrams based on the appropriate sections of “APTI Course 415: Control of Gaseous Emissions” (incorporated by reference as specified in § 270.6) or other engineering texts acceptable to the Director that present basic control device design information. The design analysis shall address the vent stream characteristics and control device operation parameters as specified in § 264.1035(b)(4)(iii).

(4) A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is or would be operating at the highest load or capacity level reasonably expected to occur.

(5) A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 weight percent or greater unless the total organic emission limits of § 264.1032(a) for affected process vents at the facility can be attained by a control device involving vapor recovery at an efficiency less than 95 weight percent.

§ 270.25 Specific Part B information requirements for equipment.

Except as otherwise provided in § 264.1, owners and operators of facilities that have equipment to which Subsection BB of Section 264 applies must provide the following additional information:

(a) For each piece of equipment to which Subsection BB of Section 264 applies:

(1) Equipment identification number and hazardous waste management unit identification.

(2) Approximate locations within the facility (e.g., identify the hazardous waste management unit on a facility plot plan).

(3) Type of equipment (e.g., a pump or pipeline valve).

(4) Percent by weight total organics in the hazardous waste stream at the equipment.

(5) Hazardous waste state at the equipment (e.g., gas/vapor or liquid).

(6) Method of compliance with the standard (e.g., “monthly leak detection and repair” or “equipped with dual mechanical seals”).

(b) For facilities that cannot install a closed-vent system and control device to comply with the provisions of Section 264, Subsection BB on the effective date that the facility becomes subject to the provisions of Section 264 or 265 Subsection BB, an implementation schedule as specified in § 264.1033(a)(2).

(c) Where an owner or operator applies for permission to use a control device other than a thermal vapor incinerator, catalytic vapor incinerator, flare, boiler, process heater,

condenser, or carbon adsorption system and chooses to use test data to determine the organic removal efficiency or the total organic compound concentration achieved by the control device, a performance test plan as specified in § 264.1035(b)(3).

(d) Documentation that demonstrates compliance with the equipment standards in §§ 264.1052 to 264.1059. This documentation shall contain the records required under § 264.1064. The Director may request further documentation before deciding if compliance has been demonstrated.

(e) Documentation to demonstrate compliance with § 264.1060 shall include the following information:

(1) A list of all information references and sources used in preparing the documentation.

(2) Records, including the dates, of each compliance test required by § 264.1033(j).

(3) A design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of "ATPI Course 415: Control of Gaseous Emissions" (incorporated by reference as specified in § 270.6) or other engineering texts acceptable to the Director that present basic control device design information. The design analysis shall address the vent stream characteristics and control device operation parameters as specified in § 264.1035(b)(4)(iii).

(4) A statement signed and dated by the owner or operator certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is operating at the highest load or capacity level reasonably expected to occur.

(5) A statement signed and dated by the owner or operator certifying that the control device is designed to operate at an efficiency of 95 weight percent or greater.

§ 270.26 Special Part B information requirements for drip pads.

Except as otherwise provided by § 264.1 of this regulation, owners and operators of hazardous waste treatment, storage, or disposal facilities that collect, store, or treat hazardous waste on drip pads must provide the following additional information:

(a) A list of hazardous wastes placed or to be placed on each drip pad.

(b) If an exemption is sought to Subsection F of Section 264 of this regulation, as provided by § 264.90 of this regulation, detailed plans and an engineering report describing how the requirements of § 264.90(b)(2) of this regulation will be met.

(c) Detailed plans and an engineering report describing how the drip pad is or will be designed, constructed, operated and maintained to meet the requirements of § 264.573 of this regulation, including the as-built drawings and specifications.

This submission must address the following items as specified in § 264.571 of this regulation:

(1) The design characteristics of the drip pad;

(2) The liner system;

(3) The leakage detection system, including the leak detection system and how it is designed to detect the failure of the drip pad or the presence of any releases of hazardous waste or accumulated liquid at the earliest practicable time;

(4) Practices designed to maintain drip pads;

(5) The associated collection system;

(6) Control of run-on to the drip pad;

(7) Control of run-off from the drip pad;

(8) The interval at which drippage and other materials will be removed from the associated collection system and a statement demonstrating that the interval will be sufficient to prevent overflow onto the drip pad;

(9) Procedures for cleaning the drip pad at least once every seven days to ensure the removal of any accumulated residues of waste or other materials, including but not limited to rinsing, washing with detergents or other appropriate solvents, or steam cleaning and provisions for documenting the date, time, and cleaning procedure used each time the pad is cleaned.

(10) Operating practices and procedures that will be followed to ensure that tracking of hazardous waste or waste constituents off the drip pad due to activities by personnel or equipment is minimized;

(11) Procedures for ensuring that, after removal from the treatment vessel, treated wood from pressure and non-pressure processes is held on the drip pad until drippage has ceased, including recordkeeping practices;

(12) Provisions for ensuring that collection and holding units associated with the run-on and run-off control systems are emptied or otherwise managed as soon as possible after storms to maintain design capacity of the system;

(13) If treatment is carried out on the drip pad, details of the process equipment used, and the nature and quality of the residuals.

(14) A description of how each drip pad, including appurtenances for control of run-on and run-off, will be inspected in order to meet the requirements of § 264.573 of this regulation. This information should be included in the inspection plan submitted under § 270.14(b)(5) of this Section.

(15) A certification signed by an independent qualified, Arkansas-registered professional engineer, stating that the drip pad design meets the requirements of paragraphs (a) through (f) of § 264.573 of this regulation.

(16) A description of how hazardous waste residues and contaminated materials will be removed from the drip pad at closure, as required under §

264.575(a) of this regulation. For any waste not to be removed from the drip pad upon closure, the owner or operator must submit detailed plans and an engineering report describing how § 264.310 (a) and (b) of this regulation will be complied with. This information should be included in the closure plan and, where applicable, the post-closure plan submitted under § 270.14(b)(13).

§ 270.27 Specific Part B information requirements for air emission controls for tanks, surface impoundments, and containers.

(a) Except as otherwise provided in § 264.1, owners and operators of tanks, surface impoundments, or containers that use air emission controls in accordance with the requirements of § 264, subsection CC shall provide the following additional information:

(1) Documentation for each floating roof cover installed on a tank subject to § 264.1084(d)(1) or § 264.1084(d)(2) that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the applicable design specifications as listed in § 264.1084(e)(1) or § 264.1084(f)(1).

(2) Identification of each container area subject to the requirements of § 264, subsection CC and certification by the owner or operator that the requirements of this subsection are met.

(3) Documentation for each enclosure used to control air pollutant emissions from tanks or containers in accordance with the requirements of § 264.1084(d)(5) or § 264.1086(e)(1)(ii) that includes records for the most recent set of calculations and measurements performed by the owner or operator to verify that the enclosure meets the criteria of a permanent total enclosure as specified in "Procedure T - Criteria for and Verification of a Permanent or Temporary Total Enclosure" under 40 CFR 52.741, Appendix B.

(4) Documentation for each floating membrane cover installed on a surface impoundment in accordance with the requirements of § 264.1085(c) that includes information prepared by the owner or operator or provided by the cover manufacturer or vendor describing the cover design, and certification by the owner or operator that the cover meets the specifications listed in § 264.1085(c)(1).

(5) Documentation for each closed-vent system and control device installed in accordance with the requirements of § 264.1087 that includes design and performance information as specified in § 270.24(c) and (d) of this section.

(6) An emission monitoring plan for both Method 21 in 40 CFR part 60, appendix A and control device

monitoring methods. This plan shall include the following information: Monitoring point(s), monitoring methods for control devices, monitoring frequency, procedures for documenting exceedances, and procedures for mitigating noncompliances.

(7) When an owner or operator of a facility subject to Regulation No. 23, § 265, subsection CC cannot comply with § 264, subsection CC by the date of permit issuance, the schedule of implementation required under § 265.1082.

§ 270.28 Part B information requirements for post-closure permits.

For post-closure permits, the owner or operator is required to submit only the information specified in §§270.14(b)(1), (4), (5), (6), (11), (13), (14), (16), (18) and (19), (c), and (d), unless the Director determines that additional information from §§ 270.14, 270.16, 270.17, 270.18, 270.20, or 270.21 is necessary. The owner or operator is required to submit the same information when an alternative authority is used in lieu of a post-closure permit as provided in § 270.1(c)(7).

§ 270.29 Permit Denial.

The Director may, pursuant to the procedures in 40 CFR 124 (as incorporated by reference at § 3(b) of this Regulation) and APC&EC Regulation No. 8, deny the permit application either in its entirety or as to the active life of a hazardous waste management facility or unit only.

Subsection C – Permit Conditions

§ 270.30 Conditions applicable to all permits.

The following conditions apply to all HWM permits, and shall be incorporated into the permits either expressly or by reference. If incorporated by reference, a specific citation to these regulations must be given in the permit.

(a) Duty to comply. The permittee must comply with all conditions of this permit, except that the permittee need not comply with the conditions of this permit to the extent and for the duration such noncompliance is authorized in an emergency permit. (See § 270.61). Any permit noncompliance, except under the terms of an emergency permit, constitutes a violation of the appropriate Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

(b) Duty to reapply. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.

(c) Need to halt or reduce activity not a defense. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(d) In the event of noncompliance with the permit, the permittee shall take all reasonable steps to minimize releases to the environment, and shall carry out such measures as are reasonable to prevent significant adverse impacts on human health or the environment.

(e) Proper operation and maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

(f) Permit actions. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

(g) Property rights. The permit does not convey any property rights of any sort, or any exclusive privilege.

(h) Duty to provide information. The permittee shall furnish to the Director, within a reasonable time, any relevant information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee shall also furnish to the Director, upon request, copies of records required to be kept by this permit.

(i) Inspection and entry. The permittee shall allow the Director, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

(1) Enter at reasonable times upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;

(2) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(3) Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

(4) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by RCRA, any substances or parameters at any location.

(j) Monitoring and records. (1) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(2) The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, the certification required by § 264.73(b)(9) of this regulation, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report, certification, or application. This period may be extended by request of the Director at any time. The permittee shall maintain records from all ground-water monitoring wells and associated ground-water surface elevations, for the active life of the facility, and for disposal facilities for the post-closure care period as well.

(3) Records for monitoring information shall include:

(i) The date, exact place, and time of sampling or measurements;

(ii) The individual(s) who performed the sampling or measurements;

(iii) The date(s) analyses were performed;

(iv) The individual(s) who performed the analyses;

(v) The analytical techniques or methods used; and

(vi) The results of such analyses.

(k) Signatory requirements. All applications, reports, or information submitted to the Director shall be signed and certified (See § 270.11.)

(l) Reporting requirements. (1) Planned changes. The permittee shall give notice to the Director as soon as possible of any planned physical alterations or additions to the permitted facility.

(2) Anticipated noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. For a new facility, the permittee may not treat, store, or dispose of hazardous waste; and for a facility being modified, the permittee may not treat, store, or dispose of hazardous waste in the modified portion of the facility except as provided in § 270.42, until:

(i) The permittee has submitted to the Director by certified mail or hand delivery a letter signed by the permittee and a Arkansas-registered professional engineer stating that the facility has been constructed or modified in compliance with the permit; and

(ii)(A) The Director has inspected the modified or newly constructed facility and

finds it is in compliance with the conditions of the permit; or

(B) Within 15 days of the date of submission of the letter in paragraph (1)(2)(i) of this section, the permittee has not received notice from the Director of his or her intent to inspect, prior inspection is waived and the permittee may commence treatment, storage, or disposal of hazardous waste.

(3) Transfers. This permit is not transferable to any person except after notice to the Director. The Director may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under RCRA. (See § 270.40)

(4) Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit.

(5) Compliance schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

(6) Twenty-four hour reporting. (i) The permittee shall report any noncompliance which may endanger health or the environment orally within 24 hours from the time the permittee becomes aware of the circumstances, including:

(A) Information concerning release of any hazardous waste that may cause an endangerment to public drinking water supplies.

(B) Any information of a release or discharge of hazardous waste or of a fire or explosion from the HWM facility, which could threaten the environment or human health outside the facility.

(ii) The description of the occurrence and its cause shall include:

(A) Name, address, and telephone number of the owner or operator;

(B) Name, address, and telephone number of the facility;

(C) Date, time, and type of incident;

(D) Name and quantity of material(s) involved;

(E) The extent of injuries, if any;

(F) An assessment of actual or potential hazards to the environment and human health outside the facility, where this is applicable; and

(G) Estimated quantity and disposition of recovered material that resulted from the incident.

(iii) A written submission shall also be

provided within 5 days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Director may waive the five day written notice requirement in favor of a written report within fifteen days.

(7) Manifest discrepancy report: If a significant discrepancy in a manifest is discovered, the permittee must attempt to reconcile the discrepancy. If not resolved within fifteen days, the permittee must submit a letter report, including a copy of the manifest, to the Director. (See § 264.72.)

(8) Unmanifested waste report: This report must be submitted to the Director within 15 days of receipt of unmanifested waste. (See § 264.76)

(9) Annual report: An annual report must be submitted covering facility activities during odd numbered calendar years. (See § 264.75.)

(10) Other noncompliance. The permittee shall report all instances of noncompliance not reported under paragraphs (1)(4), (5), and (6) of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph (1)(6) of this section.

(11) Other information. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Director, it shall promptly submit such facts or information.

(m) Information repository. The Director may require the permittee to establish and maintain an information repository at any time, based on the factors set forth in § 270.7(f). The information repository will be governed by the provisions in 40 CFR 124.33(c) through (f).

§ 270.31 Requirements for recording and reporting of monitoring results.

All permits shall specify:

(a) Requirements concerning the proper use, maintenance, and installation, when appropriate, of monitoring equipment or methods (including biological monitoring methods when appropriate);

(b) Required monitoring including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity including, when appropriate, continuous monitoring;

(c) Applicable reporting requirements based upon the impact of the regulated activity and as specified in Sections

264 and 266, and 40 CFR Parts 264, 266 and 267. Reporting shall be no less frequent than specified in the above regulations.

§ 270.32 Establishing permit conditions.

(a) In addition to conditions required in all permits (§ 270.30), the Director shall establish conditions, as required on a case-by-case basis, in permits under §§ 270.50 (duration of permits), 270.33(a) (schedules of compliance), 270.31 (monitoring), and for EPA issued permits only, 270.33(b) (alternate schedules of compliance) and 270.3 (considerations under Federal law).

(b)(1) Each HWM permit shall include permit conditions necessary to achieve compliance with the Act and regulations, including each of the applicable requirements specified in Sections 264 and 266 through 268 of this regulation. In satisfying this provision, the Director may incorporate applicable requirements of Sections 264 and 266 through 268 of this regulation directly into the permit or establish other permit conditions that are based on these parts.

(2) Each permit issued under A.C.A. §§ 8-7-201 *et seq.* shall contain terms and conditions as the Administrator or the Director determines necessary to protect human health and the environment.

(3) If, as the result of an assessment(s) or other information, the Director determines that conditions are necessary in addition to those required under 40 CFR Part 63, subsection EEE, and Sections 264 or 266 of this Regulation to ensure protection of human health and the environment, he shall include those terms and conditions in a RCRA permit for a hazardous waste combustion unit.

(c) For a State issued permit, an applicable requirement is a State statutory or regulatory requirement which takes effect prior to final administrative disposition of a permit. For a permit issued by EPA, an applicable requirement is a statutory or regulatory requirement (including any interim final regulation) which takes effect prior to the issuance of the permit. 40 CFR 124.14 (reopening of comment period) provides a means for reopening EPA permit proceedings at the discretion of the Regional Administrator in coordination with the Director where new requirements become effective during the permitting process and are of sufficient magnitude to make additional proceedings desirable. For State and EPA administered programs, an applicable requirement is also any requirement which takes effect prior to the modification or revocation and reissuance of a permit, to the extent allowed in § 270.41.

(d) New or reissued permits, and to the extent allowed under § 270.41, modified or revoked and reissued permits, shall incorporate each of the applicable requirements referenced in this section and in Section 270.31.

(e) Incorporation. All permit conditions shall be incorporated either expressly or by reference. If incorporated by reference, a specific citation to the applicable regulations or requirements must be given in the permit.

§ 270.33 Schedules of compliance.

(a) The permit may, when appropriate, specify a schedule of compliance leading to compliance with the Act and regulations.

(1) Time for compliance. Any schedules of compliance under this section shall require compliance as soon as possible.

(2) Interim dates. Except as provided in paragraph (b)(1)(ii) of this section, if a permit establishes a schedule of compliance which exceeds 1 year from the date of permit issuance, the schedule shall set forth interim requirements and the dates for their achievement.

(i) The time between interim dates shall not exceed 1 year.

(ii) If the time necessary for completion of any interim requirement is more than 1 year and is not readily divisible into stages for completion, the permit shall specify interim dates for the submission of reports of progress toward completion of the interim requirements and indicate a projected completion date.

(3) Reporting. The permit shall be written to require that no later than 14 days following each interim date and the final date of compliance, the permittee shall notify the Director in writing, of its compliance or noncompliance with the interim or final requirements.

(b) Alternative schedules of compliance. A HWM permit applicant or permittee may cease conducting regulated activities (by receiving a terminal volume of hazardous waste and, for treatment and storage HWM facilities, closing pursuant to applicable requirements; and, for disposal HWM facilities, closing and conducting post-closure care pursuant to applicable requirements) rather than continue to operate and meet permit requirements as follows:

(1) If the permittee decides to cease conducting regulated activities at a given time within the term of a permit which has already been issued:

(i) The permit may be modified to contain a new or additional schedule leading to timely cessation of activities; or

(ii) The permittee shall cease conducting permitted activities before noncompliance with any interim or final compliance schedule requirement already specified in the permit.

(2) If the decision to cease conducting regulated activities is made before issuance of a permit whose term will include the termination date, the permit shall contain a schedule leading to termination which will ensure timely compliance with applicable requirements.

(3) If the permittee is undecided whether to cease conducting regulated activities, the Director may issue or modify a permit to contain two schedules as follows:

(i) Both schedules shall contain an identical interim deadline requiring a final decision on whether to cease conducting regulated activities no later than a date which ensures sufficient time to comply with applicable requirements in a timely manner if the decision is to continue conducting regulated activities;

(ii) One schedule shall lead to timely compliance with applicable requirements;

(iii) The second schedule shall lead to cessation of regulated activities by a date which will ensure timely compliance with applicable requirements;

(iv) Each permit containing two schedules shall include a requirement that after the permittee has made a final decision under paragraph (b)(3)(i) of this section it shall follow the schedule leading to compliance if the decision is to continue conducting regulated activities, and follow the schedule leading to termination if the decision is to cease conducting regulated activities.

(4) The applicant's or permittee's decision to cease conducting regulated activities shall be evidenced by a firm public commitment satisfactory to the Director, such as resolution of the board of directors of a corporation.

§ 270.34 Health Monitoring and Hazard Identification.

(a) *Prior to the operation of a new commercial hazardous waste management facility, the Department may request that the appropriate health agency have a survey conducted, at reasonable cost, to establish baseline health data. Such survey shall:*

(1) *Be conducted by a person approved by both the Department and the health agency;*

(2) *Investigate the prevalence of those health conditions deemed appropriate by the Department in consultation with the Arkansas Department of Health and other health agencies;*

(3) *Be completed among a statistically representative portion of the population located within an area defined as likely to be impacted on the basis of information describing the type of facility, nature of the operation, type of waste managed and proximity to major water sources or other likely vehicles for dissemination in the environment.*

(b) *Whenever the Department finds that there exists a reasonable probability that emissions from any hazardous waste management facility are related to disease etiology, it shall have conducted pertinent epidemiologic investigations in order to ascertain early identification of unknown health hazards and to effect the appropriate corrective intervention.*

Such investigation shall be subject to the provisions of § 6(k) of this Regulation and limited to reasonable cost.

Subsection D – Changes to Permits

§ 270.40 Transfer of permits.

(a) A permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued (under § 270.40(b) or § 270.41(b)(2)) to identify the new permittee and incorporate such other requirements as may be necessary under the Arkansas Hazardous Waste Management Act (A.C.A §§ 8-7-201 *et seq.*).

(b) Changes in the ownership or operational control of a facility may be made as a Class 1 modification with prior written approval of the Director in accordance with § 270.42 or as a routine change with prior approval under 40 CFR 124.213. The new owner or operator must submit a revised permit application no later than 90 days prior to the scheduled change. A written agreement containing a specific date for transfer of permit responsibility between the current and new permittees must also be submitted to the Director. When a transfer of ownership or operational control occurs, the old owner or operator shall comply with the requirements of Section 264, Subsection H (Financial Requirements) until the new owner or operator has demonstrated that he or she is complying with the requirements of that Subsection. The new owner or operator must demonstrate compliance with Subsection H requirements *not later than* the date of the change of ownership or operational control of the facility. Upon demonstration to the Director by the new owner or operator of compliance with Subsection H, the Director shall notify the old owner or operator that he or she no longer needs to comply with Subsection H as of the date of demonstration.

§ 270.41 Modification or revocation and reissuance of permits.

When the Director receives any information (for example, inspects the facility, receives information submitted by the permittee as required in the permit (see § 270.30), receives a request for revocation and reissuance under 40 CFR 124.5 or conducts a review of the permit file), he or she may determine whether one or more of the causes listed in paragraphs (a) and (b) of this section for modification, or revocation and reissuance or both exist. If cause exists, the Director may modify or revoke and reissue the permit accordingly, subject to the limitations of paragraph (c) of this section, and may request an updated application if necessary. When a permit is modified, only the conditions subject to modification are reopened. If a permit is revoked and reissued, the entire permit is reopened and subject to revision and the permit is reissued for a new term. (See 40 CFR 124.5(c)(2).) If cause does not exist under this section, the Director shall not

modify or revoke and reissue the permit, except on request of the permittee. If a permit modification is requested by the permittee, the Director shall approve or deny the request according to the procedures of Section 270.42. If a permit modification is requested by the permittee, the Director shall approve or deny the request according to the procedures of § 270.42, or § 270.320 and 40 CFR Part 124, Subpart G. Otherwise, a draft permit must be prepared and other procedures in 40 CFR 124 and APC&EC Regulation No. 8 followed.

(a) Causes for modification. The following are causes for modification, but not revocation and reissuance, of permits; the following may be causes for revocation and reissuance, as well as modification, when the permittee requests or agrees.

(1) Alterations. There are material and substantial alterations or additions to the permitted facility or activity which occurred after permit issuance which justify the application of permit conditions that are different or absent in the existing permit.

(2) Information. The Director has received information. Permits may be modified during their terms for this cause only if the information was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and would have justified the application of different permit conditions at the time of issuance.

(3) New statutory requirements or regulations. The standards or regulations on which the permit was based have been changed by statute, through promulgation of new or amended standards or regulations, or by judicial decision after the permit was issued.

(4) Compliance schedules. The Director determines good cause exists for modification of a compliance schedule, such as an act of God, strike, flood, or materials shortage or other events over which the permittee has little or no control and for which there is no reasonably available remedy.

(5) Notwithstanding any other provision in this section, when a permit for a land disposal facility is reviewed by the Director under § 270.50(d), the Director shall modify the permit as necessary to assure that the facility continues to comply with the currently applicable requirements in Sections 260 through 266, and 270.

(b) Causes for modification or revocation and reissuance. The following are causes to modify or, alternatively, revoke and reissue a permit:

(1) Cause exists for termination under § 270.43, and the Director determines that modification or revocation and reissuance is appropriate.

(2) The Director has received notification (as required in the permit, see § 270.30(1)(3)) of a proposed transfer of the permit.

(3) The Director has received notification under 40 CFR Part 124.202(b) of a facility owner or

operator's intent to be covered by a standardized permit.

(c) Facility siting. Suitability of the facility location will not be considered at the time of permit modification or revocation and reissuance unless new information or standards indicate that a threat to human health or the environment exists which was unknown at the time of permit issuance.

§ 270.42 Permit modification at the request of the Permittee.

(a) Class 1 modifications. (1) Except as provided in paragraph (a)(2) of this section, the permittee may put into effect Class 1 modifications listed in appendix I of this section under the following conditions:

(i) The permittee must notify the Director concerning the modification by certified mail or other means that establish proof of delivery within 7 calendar days after the change is put into effect. This notice must specify the changes being made to permit conditions or supporting documents referenced by the permit and must explain why they are necessary. Along with the notice, the permittee must provide the applicable information required by §§ 270.13 through 270.21, 270.62, and 270.63.

(ii) The permittee must send a notice of the modification to all persons on the facility mailing list, maintained by the Director in accordance with 40 CFR 124.10(c)(viii), and the appropriate units of State and local government, as specified in 40 CFR 124.10(c)(ix). This notification must be made within 90 calendar days after the change is put into effect. For the Class I modifications that require prior Director approval, the notification must be made within 90 calendar days after the Director approves the request.

(iii) Any person may request the Director to review, and the Director may for cause reject, any Class 1 modification. The Director must inform the permittee by certified mail that a Class 1 modification has been rejected, explaining the reasons for the rejection. If a Class 1 modification has been rejected, the permittee must comply with the original permit conditions.

(2) Class 1 permit modifications identified in appendix I by an asterisk may be made only with the prior written approval of the Director.

(3) For a Class 1 permit modification, the permittee may elect to follow the procedures in § 270.42(b) for Class 2 modifications instead of the Class 1 procedures. The permittee must inform the Director of this decision in the notice required in §

270.42(b)(1).

(b) Class 2 modifications. (1) For Class 2 modifications, listed in appendix I of this section, the permittee must submit a modification request to the Director that:

- (i) Describes the exact change to be made to the permit conditions and supporting documents referenced by the permit;
- (ii) Identifies that the modification is a Class 2 modification;
- (iii) Explains why the modification is needed; and
- (iv) Provides the applicable information required by §§ 270.13 through 270.21, 270.62, and 270.63.

(2) The permittee must send a notice of the modification request to all persons on the facility mailing list maintained by the Director and to the appropriate units of State and local government as specified in 40 CFR 124.10(c)(1)(ix) and must publish this notice in a major local newspaper of general circulation. This notice must be mailed and published within 7 days before or after the date of submission of the modification request, and the permittee must provide to the Director evidence of the mailing and publication. The notice must include:

- (i) Announcement of a 60-day comment period, in accordance with § 270.42(b)(5), and the name and address of a Department contact to whom comments must be sent;
- (ii) Announcement of the date, time, and place for a public meeting held in accordance with § 270.42(b)(4);
- (iii) Name and telephone number of the permittee's contact person;
- (iv) Name and telephone number of a Department contact person;
- (v) Location where copies of the modification request and any supporting documents can be viewed and copied; and
- (vi) The following statement: "The permittee's compliance history during the life of the permit being modified is available from the Department contact person."

(3) The permittee must place a copy of the permit modification request and supporting documents in a location accessible to the public in the vicinity of the permitted facility.

(4) The permittee must hold a public meeting no earlier than 15 days after the publication of the notice required in paragraph (b)(2) of this section and no later than 15 days before the close of the 60-day comment period. The meeting must be held to the extent practicable in the vicinity of the permitted facility.

(5) The public shall be provided 60 days to comment on the modification request. The comment period will begin on the date the permittee publishes

the notice in the local newspaper. Comments should be submitted to the Agency contact identified in the public notice.

(6)(i) No later than 90 days after receipt of the notification request, the Director must:

- (A) Approve the modification request, with or without changes, and modify the permit accordingly;
- (B) Deny the request;
- (C) Determine that the modification request must follow the procedures in § 270.42(c) for Class 3 modifications for the following reasons:

(1) There is significant public concern about the proposed modification; or

(2) The complex nature of the change requires the more extensive procedures of Class 3.

(D) Approve the request, with or without changes, as a temporary authorization having a term of up to 180 days, or

(E) Notify the permittee that he or she will decide on the request within the next 30 days.

(ii) If the Director notifies the permittee of a 30-day extension for a decision, the Director must, no later than 120 days after receipt of the modification request:

(A) Approve the modification request, with or without changes, and modify the permit accordingly;

(B) Deny the request; or

(C) Determine that the modification request must follow the procedures in § 270.42(c) for Class 3 modifications for the following reasons:

(1) There is significant public concern about the proposed modification; or

(2) The complex nature of the change requires the more extensive procedures of Class 3.

(D) Approve the request, with or without changes, as a temporary authorization having a term of up to 180 days.

(iii) If the Director fails to make one of the decisions specified in paragraph (b)(6)(ii) of this section by the 120th day after receipt of the modification request, the permittee is automatically authorized to conduct the activities described in the modification request for up to 180 days, without formal Agency action. The authorized activities must be conducted as described in the permit modification request and must be in compliance with all appropriate standards of

Section 270 of this regulation. If the Director approves, with or without changes, or denies the modification request during the term of the temporary or automatic authorization provided for in paragraphs (b)(6) (i), (ii), or (iii) of this section, such action cancels the temporary or automatic authorization.

(iv)(A) In the case of an automatic authorization under paragraph (b)(6)(iii) of this section, or a temporary authorization under paragraph (b)(6) (i)(D) or (ii)(D) of this section, if the Director has not made a final approval or denial of the modification request by the date 50 days prior to the end of the temporary or automatic authorization, the permittee must within seven days of that time send a notification to persons on the facility mailing list, and make a reasonable effort to notify other persons who submitted written comments on the modification request, that:

(1) The permittee has been authorized temporarily to conduct the activities described in the permit modification request, and

(2) Unless the Director acts to give final approval or denial of the request by the end of the authorization period, the permittee will receive authorization to conduct such activities for the life of the permit.

(B) If the owner/operator fails to notify the public by the date specified in paragraph (b)(6)(iv)(A) of this section, the effective date of the permanent authorization will be deferred until 50 days after the owner/operator notifies the public.

(v) Except as provided in paragraph (b)(6)(vii) of this section, if the Director does not finally approve or deny a modification request before the end of the automatic or temporary authorization period or reclassify the modification as a Class 3, the permittee is authorized to conduct the activities described in the permit modification request for the life of the permit unless modified later under § 270.41 or § 270.42. The activities authorized under this paragraph must be conducted as described in the permit modification request and must be in compliance with all appropriate standards of Section 265 and 40 CFR part 265.

(vi) In making a decision to approve or deny a modification request, including a decision to issue a temporary authorization or to reclassify a modification as a Class 3, the Director must consider all written comments submitted to the Agency during the public

comment period and must respond in writing to all significant comments in his or her decision.

(vii) With the written consent of the permittee, the Director may extend indefinitely or for a specified period the time periods for final approval or denial of a modification request or for reclassifying a modification as a Class 3.

(7) The Director may deny or change the terms of a Class 2 permit modification request under paragraphs (b)(6) (i) through (iii) of this section for the following reasons:

(i) The modification request is incomplete;

(ii) The requested modification does not comply with the appropriate requirements of Section 264 or 40 CFR part 264 or other applicable requirements; or

(iii) The conditions of the modification fail to protect human health and the environment.

(8) The permittee may perform any construction associated with a Class 2 permit modification request beginning 60 days after the submission of the request unless the Director establishes a later date for commencing construction and informs the permittee in writing before day 60.

(c) Class 3 modifications. (1) For Class 3 modifications listed in appendix I of this section, the permittee must submit a modification request to the Director that:

(i) Describes the exact change to be made to the permit conditions and supporting documents referenced by the permit;

(ii) Identifies that the modification is a Class 3 modification;

(iii) Explains why the modification is needed; and

(iv) Provides the applicable information required by §§ 270.13 through 270.22, 270.62, 270.63, and 270.66 of this regulation.

(2) The permittee must send a notice of the modification request to all persons on the facility mailing list maintained by the Director and to the appropriate units of State and local government as specified in 40 CFR 124.10(c)(ix) and must publish this notice in a major local newspaper of general circulation. This notice must be mailed and published within seven days before or after the date of submission of the modification request, and the permittee must provide to the Director evidence of the mailing and publication. The notice must include:

(i) Announcement of a 60-day comment period, and a name and address of a Department contact to whom comments must be sent;

(ii) Announcement of the date, time, and place for a public meeting on the modification request, in accordance with § 270.42(c)(4);

(iii) Name and telephone number of the

permittee's contact person;

(iv) Name and telephone number of a Department contact person;

(v) Location where copies of the modification request and any supporting documents can be viewed and copied; and

(vi) The following statement: "The permittee's compliance history during the life of the permit being modified is available from the Department contact person."

(3) The permittee must place a copy of the permit modification request and supporting documents in a location accessible to the public in the vicinity of the permitted facility.

(4) The permittee must hold a public meeting no earlier than 15 days after the publication of the notice required in paragraph (c)(2) of this section and no later than 15 days before the close of the 60-day comment period. The meeting must be held to the extent practicable in the vicinity of the permitted facility.

(5) The public shall be provided at least 60 days to comment on the modification request. The comment period will begin on the date the permittee publishes the notice in the local newspaper. Comments should be submitted to the Department contact identified in the notice.

(6) After the conclusion of the 60-day comment period, the Director must grant or deny the permit modification request according to the permit modification procedures of Regulation No. 8 and 40 CFR Part 124. In addition, the Director must consider and respond to all significant written comments received during the 60-day comment period.

(d) Other modifications. (1) In the case of modifications not explicitly listed in Appendix I of this section, the permittee may submit a Class 3 modification request to the Department, or he or she may request a determination by the Director that the modification should be reviewed and approved as a Class 1 or Class 2 modification. If the permittee requests that the modification be classified as a Class 1 or 2 modification, he or she must provide the Department with the necessary information to support the requested classification.

(2) The Director shall make the determination described in paragraph (d)(1) of this section as promptly as practicable. In determining the appropriate class for a specific modification, the Director shall consider the similarity of the modification to other modifications codified in appendix I and the following criteria:

(i) Class 1 modifications apply to minor changes that keep the permit current with routine changes to the facility or its operation. These changes do not substantially alter the permit conditions or reduce the capacity of the facility to protect human health or the environment. In the case of Class 1

modifications, the Director may require prior approval.

(ii) Class 2 modifications apply to changes that are necessary to enable a permittee to respond, in a timely manner, to,

(A) Common variations in the types and quantities of the wastes managed under the facility permit,

(B) Technological advancements, and

(C) Changes necessary to comply with new regulations, where these changes can be implemented without substantially changing design specifications or management practices in the permit.

(iii) Class 3 modifications substantially alter the facility or its operation.

(e) Temporary authorizations. (1) Upon request of the permittee, the Director may, without prior public notice and comment, grant the permittee a temporary authorization in accordance with this subsection. Temporary authorizations must have a term of not more than 180 days.

(2)(i) The permittee may request a temporary authorization for:

(A) Any Class 2 modification meeting the criteria in paragraph (e)(3)(ii) of this section, and

(B) Any Class 3 modification that meets the criteria in paragraph (3)(ii) (A) or (B) of this section; or that meets the criteria in paragraphs (3)(ii) (C) through (E) of this section and provides improved management or treatment of a hazardous waste already listed in the facility permit.

(ii) The temporary authorization request must include:

(A) A description of the activities to be conducted under the temporary authorization;

(B) An explanation of why the temporary authorization is necessary; and

(C) Sufficient information to ensure compliance with the standards in § 264 of this regulation.

(iii) The permittee must send a notice about the temporary authorization request to all persons on the facility mailing list maintained by the Director and to appropriate units of State and local governments as specified in 40 CFR 124.10(c)(ix). This notification must be made within seven days of submission of the authorization request.

(3) The Director shall approve or deny the temporary authorization as quickly as practical. To issue a temporary authorization, the Director must find:

(i) The authorized activities are in compliance with the standards of § 264 of this

regulation.

(ii) The temporary authorization is necessary to achieve one of the following objectives before action is likely to be taken on a modification request:

(A) To facilitate timely implementation of closure or corrective action activities;

(B) To allow treatment or storage in tanks or containers, or in containment buildings in accordance with § 268;

(C) To prevent disruption of ongoing waste management activities;

(D) To enable the permittee to respond to sudden changes in the types or quantities of the wastes managed under the facility permit; or

(E) To facilitate other changes to protect human health and the environment.

(4) A temporary authorization may be reissued for one additional term of up to 180 days provided that the permittee has requested a Class 2 or 3 permit modification for the activity covered in the temporary authorization, and:

(i) The reissued temporary authorization constitutes the Director's decision on a Class 2 permit modification in accordance with paragraph (b)(6)(i)(D) or (ii)(D) of this section, or

(ii) The Director determines that the reissued temporary authorization involving a Class 3 permit modification request is warranted to allow the authorized activities to continue while the modification procedures of paragraph (c) of this section are conducted.

(f) Public notice and appeals of permit modification decisions. (1) The Director shall notify persons on the facility mailing list and appropriate units of State and local government within 10 days of any decision under this section to grant or deny a Class 2 or 3 permit modification request. The Director shall also notify such persons within 10 days after an automatic authorization for a Class 2 modification goes into effect under § 270.42(b)(6) (iii) or (v).

(2) The Director's decision to grant or deny a Class 2 or 3 permit modification request under this section may be appealed under the permit appeal procedures of APC&EC Regulation No. 8 and 40 CFR 124.19.

(3) An automatic authorization that goes into effect under § 270.42(b)(6) (iii) or (v) may be appealed under the permit appeal procedures of 40 CFR 124.19; however, the permittee may continue to conduct the activities pursuant to the automatic authorization until the appeal has been granted pursuant to § 124.19(c), notwithstanding the provisions of § 124.15(b).

(g) Newly regulated wastes and units. (1) The permittee is authorized to continue to manage wastes listed or

identified as hazardous under Section 261 of this Regulation, or to continue to manage hazardous waste in units newly regulated as hazardous waste management units, if:

(i) The unit was in existence as a hazardous waste facility with respect to the newly listed or characterized waste or newly regulated waste management unit on the effective date of the final rule listing or identifying the waste, or regulating the unit;

(ii) The permittee submits a Class 1 modification request on or before the date on which the waste or unit becomes subject to the new requirements;

(iii) The permittee is in compliance with the applicable standards of Sections 265 and 266 of this chapter;

(iv) The permittee also submits a complete Class 2 or 3 modification request within 180 days of the effective date of the rule listing or identifying the waste, or subjecting the unit to hazardous waste management standards;

(v) In the case of land disposal units, the permittee certifies that each such unit is in compliance with all applicable requirements of Section 265 of this chapter for groundwater monitoring and financial responsibility on the date 12 months after the effective date of the rule identifying or listing the waste as hazardous, or regulating the unit as a hazardous waste management unit. If the owner or operator fails to certify compliance with all these requirements, he or she will lose authority to operate under this section.

(2) New wastes or units added to a facility's permit under this subsection do not constitute expansions for the purpose of the 25 percent capacity expansion limit for Class 2 modifications.

(h) Military hazardous waste munitions treatment and disposal. The permittee is authorized to continue to accept waste military munitions notwithstanding any permit conditions barring the permittee from accepting off-site wastes, if:

(1) The facility was in existence as a hazardous waste facility, and the facility was already permitted to handle the waste military munitions, on the date when the waste military munitions became subject to hazardous waste regulatory requirements;

(2) On or before the date when the waste military munitions become subject to hazardous waste regulatory requirements, the permittee submits a Class 1 modification request to remove or amend the permit provision restricting the receipt of off-site waste munitions; and

(3) The permittee submits a complete Class 2 modification request within 180 days of the date when the waste military munitions became subject to hazardous waste regulatory requirements.

(i) Permit modification list. The Director must maintain a list of all approved permit modifications and must publish a notice once a year in a State-wide newspaper that an updated list is available for review.

(j) Combustion facility changes to meet 40 CFR Part 63 MACT standards. The following procedures apply to hazardous waste combustion facility permit modifications requested under Appendix I of this section, section L(9).

(1) Facility owners or operators must have complied with the Notification of Intent to Comply (NIC) requirements of 40 CFR 63.1210 that were in effect prior to October 11, 2000 (See 40 CFR Part 63 §§ 63.1200–63.1499 Revised as of July 1, 2000) in order to request a permit modification under this section for the purpose of technology changes needed to meet the standards under 40 CFR Part 63.1203, 63.1204, and 63.1205.

(2) Facility owners or operators must comply with the Notification of Intent to Comply (NIC) requirements of 40 CFR Part 63.1210(b) and 63.1212(a) before a permit modification can be requested under this section for the purpose of technology changes needed to meet the 40 CFR Part 63.1215, 63.1216, 63.1217, 63.1218, 63.1219, 63.1220, and 63.1221 standards promulgated on October 12, 2005.

(3) If the Director does not approve or deny the request within 90 days of receiving it, the request shall be deemed approved. The Director may, at his or her discretion, extend this 90 day deadline one time for up to 30 days by notifying the facility owner or operator.

(k) Waiver of RCRA permit conditions in support of transition to the 40 CFR Part 63 MACT standards.

(1) You may request to have specific RCRA operating and emissions limits waived by submitting a Class 1 permit modification request under Appendix I of this section, section L(10). You must:

- (i) Identify the specific RCRA permit operating and emissions limits which you are requesting to waive;
- (ii) Provide an explanation of why the

changes are necessary in order to minimize or eliminate conflicts between the RCRA permit and MACT compliance; and

(iii) Discuss how the revised provisions will be sufficiently protective.

(iv) The Director shall approve or deny the request within 30 days of receipt of the request. The Director may, as his or her discretion, extend this 30 day deadline one time for up to 30 days by notifying the facility owner or operator.

(2) To request this modification in conjunction with MACT performance testing where permit limits may only be waived during actual test events and pretesting, as defined under 40 CFR Part 63.1207(h)(2)(i) and (ii), for an aggregate time not to exceed 720 hours of operation (renewable at the discretion of the Director) you must:

(i) Submit your modification request to the Director at the same time you submit your test plans to the EPA Regional Administrator; and

(ii) The Director may elect to approve or deny the request contingent upon approval of the test plans.

(l) Performance Track member facilities. The following procedures apply to Performance Track member facilities that request a permit modification under Appendix I of this section, section O(1).

(1) Performance Track member facilities must have complied with the requirements of § 264.15(b)(5) in order to request a permit modification under this section.

(2) The Performance Track member facility should consider the application approved if the Director does not: deny the application, in writing; or notify the Performance Track member facility, in writing, of an extension to the 60-day deadline within 60 days of receiving the request. In these situations, the Performance Track member facility must adhere to the revised inspection schedule outlined in its application and maintain a copy of the application in the facility's operating record.

Appendix I to § 270.42 — Classification of Permit Modifications

Modifications	Class
A. General Permit Provisions	
1. Administrative and informational changes	1
2. Correction of typographical errors	1
3. Equipment replacement or upgrading with functionally equivalent components (e.g., pipes, valves, pumps, conveyors, controls)	1
4. Changes in the frequency of or procedures for monitoring, reporting, sampling, or maintenance activities by the permittee:	
a. To provide for more frequent monitoring, reporting, sampling, or maintenance.	1
b. Other changes	2
5. Schedule of compliance:	
a. Changes in interim compliance dates, with prior approval of the Director.	1 ¹
b. Extension of final compliance date.	3
6. Changes in expiration date of permit to allow earlier permit termination, with prior approval of the Director.	1 ¹
7. Changes in ownership or operational control of a facility, provided the procedures of § 270.40(b) are followed.	1 ¹
8. Changes to remove permit conditions that are no longer applicable (i.e., because the standards upon which they are based are no longer applicable to the facility).	1 ¹
B. General Facility Standards	
1. Changes to waste sampling or analysis methods:	
a. To conform with agency guidance or regulations.	1
b. To incorporate changes associated with F039 (multi-source leachate) sampling or analysis methods.	1 ¹
c. To incorporate changes associated with F039 (multi-source leachate) sampling or analysis methods.	1
d. To incorporate changes associated with underlying hazardous constituents in ignitable or corrosive wastes.	1
e. Other changes.	2
2. Changes to analytical quality assurance/control plan:	
a. To conform with agency guidance or regulations.	1
b. Other changes.	2
3. Changes in procedures for maintaining the operating record.	1
4. Changes in frequency or content of inspection schedules.	2
5. Changes in the training plan:	
a. That affect the type or decrease the amount of training given to employees.	2
b. Other changes.	1
6. Contingency plan:	
a. Changes in emergency procedures (i.e., spill or release response procedures).	2
b. Replacement with functionally equivalent equipment, upgrade, or relocate emergency equipment listed.	1
c. Removal of equipment from emergency equipment list.	2
d. Changes in name, address, or phone number of coordinators or other persons or agencies identified in the plan.	1
7. Construction quality assurance plan:	
a. Changes that the CQA officer certifies in the operating record will provide equivalent or better certainty that the unit components meet the design specifications.	1
b. Other changes	2
<i>Note: When a permit modification (such as introduction of a new unit) requires a change in facility plans or other general facility standards, that change shall be reviewed under the same procedures as the permit modification.</i>	
C. Ground-Water Protection	
1. Changes to wells:	
a. Changes in the number, location, depth, or design of upgradient or downgradient wells of permitted ground-water monitoring system.	2
b. Replacement of an existing well that has been damaged or rendered inoperable, without change to location, design, or depth of the well.	1
2. Changes in ground-water sampling or analysis procedures or monitoring schedule, with prior approval of the Director.	1 ¹
3. Changes in statistical procedure for determining whether a statistically significant change in ground-water quality between upgradient and downgradient wells has occurred, with prior approval of the Director.	1 ¹
4. Changes in point of compliance.	2
5. Changes in indicator parameters, hazardous constituents, or concentration limits (including ACLs):	

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a. As specified in the groundwater protection standard.	3
b. As specified in the detection monitoring program.	2
6. Changes to a detection monitoring program as required by § 264.98(h), unless otherwise specified in this appendix.	2
7. Compliance monitoring program:	
a. Addition of compliance monitoring program as required by §§ 264.98(g)(4) and 264.99.	3
b. Changes to a compliance monitoring program as required by § 264.99(j), unless otherwise specified in this appendix.	2
8. Corrective action program:	
a. Addition of a corrective action program as required by §§ 264.99(h)(2) and 264.100.	3
b. Changes to a corrective action program as required by § 264.100(h), unless otherwise specified in this appendix.	2

D. Closure

1. Changes to the closure plan:	
a. Changes in estimate of maximum extent of operations or maximum inventory of waste on-site at any time during the active life of the facility, with prior approval of the Director.	1
b. Changes in the closure schedule for any unit, changes in the final closure schedule for the facility, or extension of the closure period, with prior approval of the Director.	1
c. Changes in the expected year of final closure, where other permit conditions are not changed, with prior approval of the Director.	1
d. Changes in procedures for decontamination of facility equipment or structures, with prior approval of the Director.	1
e. Changes in approved closure plan resulting from unexpected events occurring during partial or final closure, unless otherwise specified in this appendix.	1
f. Extension of the closure period to allow a landfill, surface impoundment or land treatment unit to receive non-hazardous wastes after final receipt of hazardous wastes under § 264.113 (d) and (e).	2
g. Staging piles	2
2. Creation of a new landfill unit as part of closure.	3
3. Addition of the following new units to be used temporarily for closure activities:	
a. Surface impoundments.	3
b. Incinerators.	3
c. Waste piles that do not comply with § 264.250(c).	3
d. Waste piles that comply with § 264.250(c).	2
e. Tanks or containers (other than specified below).	2
f. Tanks used for neutralization, dewatering, phase separation, or component separation, prior approval of the Director.	1

E. Post-Closure

1. Changes in name, address, or phone number of contact in post-closure plan.	1
2. Extension of post-closure care period.	2
3. Reduction in the post-closure care period.	3
4. Changes to the expected year of final closure, where other permit conditions are not changed.	1
5. Changes in post-closure plan necessitated by events occurring during the active life of the facility, including partial and final closure.	1

F. Containers

1. Modification or addition of container units:	
a. Resulting in greater than 25% increase in the facility's container storage capacity, except as provided in F(1)(c) and F(4)(a) below.	3
b. Resulting in up to 25% increase in the facility's container storage capacity, except as provided in F(1)(c) and F(4)(a) below.	2
c. Or treatment processes necessary to treat wastes that are restricted from land disposal to meet some or all of the applicable treatment standards or to treat wastes to satisfy (in whole or in part) the standard of "use of practically greatest environmental benefit" contained in § 268.8(a)(2)(ii), with prior approval of the Director. This modification may also involve addition of new waste codes or narrative descriptions of wastes. It is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028).	1
2.	
a. Modification of a container unit without increasing the capacity of the unit.	2
b. Addition of a roof to a container unit without alteration of the containment system.	1
3. Storage of different wastes in containers, except as provided in (F)(4) below:	
a. That require additional or different management practices from those authorized in the permit.	3
b. That do not require additional or different management practices from those authorized in the permit.	2

Note: See § 270.42(g) for modification procedures to be used for the management of newly listed or identified wastes.

- 4. Storage or treatment of different wastes in containers:
 - a. That require addition of units or change in treatment process or management standards, provided that the wastes are restricted from land disposal and are to be treated to meet some or all of the applicable treatment standards, or that are to be treated to satisfy (in whole or in part) the standard of “use of practically available technology that yields the greatest environmental benefit” contained in § 268.8(a)(2)(ii). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028). 11
 - b. That do not require the addition of units or a change in the treatment process or management standards, and provided that the units have previously received wastes of the same type (e.g., incinerator scrubber water). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028). 11

G. Tanks

- 1.
 - a. Modification or addition of tank units resulting in greater than 25% increase in the facility’s tank capacity, except as provided in G(1)(c), G(1)(d), and G(1)(e) below. 3
 - b. Modification or addition of tank units resulting in up to 25% increase in the facility’s tank capacity, except as provided in G(1)(d) and G(1)(e) below. 2
 - c. Addition of a new tank that will operate for more than 90 days using any of the following physical or chemical treatment technologies: neutralization, dewatering, phase separation, or component separation. 2
 - d. After prior approval of the Director, addition of a new tank that will operate for up to 90 days using any of the following physical or chemical treatment technologies: neutralization, dewatering, phase separation, or component separation. 11
 - e. Modification or addition of tank units or treatment processes necessary to treat wastes that are restricted from land disposal to meet some or all of the applicable treatment standards or to treat wastes to satisfy (in whole or in part) the standard of “use of practically available technology that yields the greatest environmental benefit” contained in § 268.8(a)(2)(ii), with prior approval of the Director. This modification may also involve addition of new waste codes. It is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028). 11
- 2. Modification of a tank unit or secondary containment system without increasing the capacity of the unit. 2
- 3. Replacement of a tank with a tank that meets the same design standards and has a capacity within +/- 10% of the replaced tank provided. 1
 - The capacity difference is no more than 1500 gallons,
 - The facility’s permitted tank capacity is not increased, and
 - The replacement tank meets the same conditions in the permit.
- 4. Modification of a tank management practice. 2
- 5. Management of different wastes in tanks:
 - a. That require additional or different management practices, tank design, different fire protection specifications, or significantly different tank treatment process from that authorized in the permit, except as provided in (G)(5)(c) below. 3
 - b. That do not require additional or different management practices, tank design, different fire protection specifications, or significantly different tank treatment process than authorized in the permit, except as provided in (G)(5)(d). 2
 - c. That require addition of units or change in treatment processes or management standards, provided that the wastes are restricted from land disposal and are to be treated to meet some or all of the applicable treatment standards or that are to be treated to satisfy (in whole or in part) the standard of “use of practically available technology that yields the greatest environmental benefit” contained in § 268.8(a)(2)(ii). The modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028). 11
 - d. That do not require the addition of units or a change in the treatment process or management standards, and provided that the units have previously received wastes of the same type (e.g., incinerator scrubber water). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028). 1

Note: See § 270.42(g) for modification procedures to be used for the management of newly listed or identified wastes.

H. Surface Impoundments

- 1. Modification or addition of surface impoundment units that result in increasing the facility’s surface impoundment storage or treatment capacity. 3
- 2. Replacement of a surface impoundment unit. 3
- 3. Modification of a surface impoundment unit without increasing the facility’s surface impoundment storage or treatment capacity and without modifying the unit’s liner, leak detection system, or leachate collection system. 2
- 4. Modification of a surface impoundment management practice. 2
- 5. Treatment, storage, or disposal of different wastes in surface impoundments:
 - a. That require additional or different management practices or different design of the liner or leak detection system than authorized in the permit. 3
 - b. That do not require additional or different management practices or different design of the liner or leak detection system than authorized in the permit. 2

- c. That are wastes restricted from land disposal that meet the applicable treatment standards or that are treated to satisfy the standard of “use of practically available technology that yields the greatest environmental benefit” contained in § 268.8(a)(2)(ii), and provided that the unit meets the minimum technological requirements stated in § 268.5(h)(2). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028). 1
- d. That are residues from wastewater treatment or incineration, provided that disposal occurs in a unit that meets the minimum technological requirements stated in § 268.5(h)(2), and provided further that the surface impoundment has previously received wastes of the same type (for example, incinerator scrubber water). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028) 1
- 6. Modifications of unconstructed units to comply with §§ 264.221(c), 264.222, 264.223, and 264.226(d) 1
- 7. Changes in response action plan:
 - a. Increase in action leakage rate 3
 - b. Change in a specific response reducing its frequency or effectiveness. 3
 - c. Other changes 2

Note: See § 270.42(g) for modification procedures to be used for the management of newly listed or identified wastes.

I. Enclosed Waste Piles. For all waste piles except those complying with § 264.250(c), modifications are treated the same as for a landfill. The following modifications are applicable only to waste piles complying with § 264.250(c).

- 1. Modification or addition of waste pile units:
 - a. Resulting in greater than 25% increase in the facility’s waste pile storage or treatment capacity. 3
 - b. Resulting in up to 25% increase in the facility’s waste pile storage or treatment capacity. 2
- 2. Modification of waste pile unit without increasing the capacity of the unit. 2
- 3. Replacement of a waste pile unit with another waste pile unit of the same design and capacity and meeting all waste pile conditions in the permit. 1
- 4. Modification of a waste pile management practice. 2
- 5. Storage or treatment of different wastes in waste piles:
 - a. That require additional or different management practices or different design of the unit. 3
 - b. That do not require additional or different management practices or different design of the unit. 2
- 6. Conversion of an enclosed waste pile to a containment building unit. 2

Note: See § 270.42(g) for modification procedures to be used for the management of newly listed or identified wastes.

J. Landfills and Unenclosed Waste Piles

- 1. Modification or addition of landfill units that result in increasing the facility’s disposal capacity. 3
- 2. Replacement of a landfill. 3
- 3. Addition or modification of a liner, leachate collection system, leachate detection system, run-off control, or final cover system. 3
- 4. Modification of a landfill unit without changing a liner, leachate collection system, leachate detection system, run-off control, or final cover system. 2
- 5. Modification of a landfill management practice. 2
- 6. Landfill different wastes:
 - a. That require additional or different management practices, different design of the liner, leachate collection system, or leachate detection system. 3
 - b. That do not require additional or different management practices, different design of the liner, leachate collection system, or leachate detection system. 2
 - c. That are wastes restricted from land disposal that meet the applicable treatment standards or that are treated to satisfy the standard of “use of practically available technology that yields the greatest environmental benefit” contained in § 268.8(a)(2)(ii), and provided that the landfill unit meets the minimum technological requirements stated in § 268.5(h)(2). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028). 1
 - d. That are residues from wastewater treatment or incineration, provided that disposal occurs in a landfill unit that meets the minimum technological requirements stated in § 268.5(h)(2), and provided further that the landfill has previously received wastes of the same type (for example, incinerator ash). This modification is not applicable to dioxin-containing wastes (F020, 021, 022, 023, 026, 027, and 028). 1
- 7. Modifications of unconstructed units to comply with §§ 264.251(c), 264.252, 264.253, 264.254(c), 264.301(c), 264.302, 264.303(c), and 264.304. 1
- 8. Changes in response action plan:
 - a. Increase in action leakage rate 3
 - b. Change in a specific response reducing its frequency or effectiveness. 3
 - c. Other changes 2

Note: See § 270.42(g) for modification procedures to be used for the management of newly listed or identified wastes.

K. Land Treatment

- 1. Lateral expansion of or other modification of a land treatment unit to increase areal extent. 3
- 2. Modification of run-on control system. 2
- 3. Modify run-off control system. 3
- 4. Other modifications of land treatment unit component specifications or standards required in permit. 2
- 5. Management of different wastes in land treatment units:
 - a. That require a change in permit operating conditions or unit design specifications. 3
 - b. That do not require a change in permit operating conditions or unit design specifications. 2

Note: See § 270.42(g) for modification procedures to be used for the management of newly listed or identified wastes.

- 6. Modification of a land treatment unit management practice to:
 - a. Increase rate or change method of waste application. 3
 - b. Decrease rate of waste application. 1
- 7. Modification of a land treatment unit management practice to change measures of pH or moisture content, or to enhance microbial or chemical reactions. 2
- 8. Modification of a land treatment unit management practice to grow food chain crops, to add to or replace existing permitted crops with different food chain crops, or to modify operating plans for distribution of animal feeds resulting from such crops. 3
- 9. Modification of operating practice due to detection of releases from the land treatment unit pursuant to § 264.278(g)(2). 3
- 10. Changes in the unsaturated zone monitoring system, resulting in a change to the location, depth, number of sampling points, or replace unsaturated zone monitoring devices or components of devices with devices or components that have specifications different from permit requirements. 3
- 11. Changes in the unsaturated zone monitoring system that do not result in a change to the location, depth, number of sampling points, or that replace unsaturated zone monitoring devices or components of devices with devices or components having specifications different from permit requirements. 2
- 12. Changes in background values for hazardous constituents in soil and soil-pore liquid. 2
- 13. Changes in sampling, analysis, or statistical procedure. 2
- 14. Changes in land treatment demonstration program prior to or during the demonstration. 2
 - 15. Changes in any condition specified in the permit for a land treatment unit to reflect results of the land treatment demonstration, provided performance standards are met, and the Director's prior approval has been received. 1
 - 16. Changes to allow a second land treatment demonstration to be conducted when the results of the first demonstration have not shown the conditions under which the wastes can be treated completely, provided the conditions for the second demonstration are substantially the same as the conditions for the first demonstration and have received the prior approval of the Director. 1
 - 17. Changes to allow a second land treatment demonstration to be conducted when the results of the first demonstration have not shown the conditions under which the wastes can be treated completely, where the conditions for the second demonstration are not substantially the same as the conditions for the first demonstration. 3
 - 18. Changes in vegetative cover requirements for closure. 2
- L. Incinerators, Boilers, and Industrial Furnaces:**
 - 1. Changes to increase by more than 25% any of the following limits authorized in the permit: A thermal feed rate limit, a feedstream feed rate limit, a chlorine/chloride feed rate limit, a metal feed rate limit, or an ash feed rate limit. The Director will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means. 3
 - 2. Changes to increase by up to 25% any of the following limits authorized in the permit: A thermal feed rate limit, a feedstream feed rate limit, a chlorine/chloride feed rate limit, a metal feed rate limit, or an ash feed rate limit. The Director will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means. 2
 - 3. Modification of an incinerator, boiler, or industrial furnace unit by changing the internal size or geometry of the primary or secondary combustion units, by adding a primary or secondary combustion unit, by substantially changing the design of any component used to remove HCl/Cl₂, metals, or particulate from the combustion gases, or by changing other features of the incinerator, boiler, or industrial furnace that could affect its capability to meet the regulatory performance standards. The Director will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means. 3
 - 4. Modification of an incinerator, boiler, or industrial furnace unit in a manner that would not likely affect the capability of the unit to meet the regulatory performance standards but which would change the operating conditions or monitoring requirements specified in the permit. The Director may require a new trial burn to demonstrate compliance with the regulatory performance standards. 2
 - 5. Operating requirements.
 - a. Modification of the limits specified in the permit for minimum or maximum combustion gas temperature, minimum combustion gas residence time, oxygen concentration in the secondary combustion chamber, flue gas carbon monoxide and hydrocarbon concentration, maximum temperature at the inlet to the particulate matter emission control system, or operating parameters for the air pollution control system. The Director will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means. 3
 - b. Modification of any stack gas emission limits specified in the permit, or modification of any conditions in the permit concerning emergency shutdown or automatic waste feed cutoff procedures or controls. 3
 - c. Modification of any other operating condition or any inspection or recordkeeping requirement specified in the permit. 2
 - 6. Burning different wastes:
 - a. If the waste contains a POHC that is more difficult to burn than authorized by the permit or if burning of the waste requires compliance with different regulatory performance standards than specified in the permit. The Director will require a new trial burn to substantiate compliance with the regulatory performance standards unless this demonstration can be made through other means. 3

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- b. If the waste does not contain a POHC that is more difficult to burn than authorized by the permit and if burning of the waste does not require compliance with different regulatory performance standards than specified in the permit. 2

Note: See § 270.42(g) for modification procedures to be used for the management of newly listed or identified wastes.

- 7. Shakedown and trial burn:
 - a. Modification of the trial burn plan or any of the permit conditions applicable during the shakedown period for determining operational readiness after construction, the trial burn period, or the period immediately following the trial burn. 2
 - b. Authorization of up to an additional 720 hours of waste burning during the shakedown period for determining operational readiness after construction, with the prior approval of the Director. 1
 - c. Changes in the operating requirements set in the permit for conducting a trial burn, provided the change is minor and has received the prior approval of the Director. 1
 - d. Changes in the ranges of the operating requirements set in the permit to reflect the results of the trial burn, provided the change is minor and has received the prior approval of the Director. 1
- 8. Substitution of an alternative type of nonhazardous waste fuel that is not specified in the permit. 1
- 9. Technology changes needed to meet standards under 40 CFR part 63 (Subpart EEE— National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors), provided the procedures of § 270.42(j) are followed. 1
- 10. Changes to RCRA permit provisions needed to support transition to 40 CFR part 63 (Subsection EEE— National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors), provided the procedures of § 270.42(k) are followed 1

M. Containment Buildings

- 1. Modification or addition of containment building units.
 - a. Resulting in greater than 25% increase in the facility’s containment building storage or treatment capacity 3
 - b. Resulting in up to 25% increase in the facility’s containment building storage or treatment capacity 2
- 2. Modification of a containment building unit or secondary containment system without increasing the capacity of the unit 2
- 3. Replacement of a containment building that meets the same design standards provided:
 - a. The unit capacity is not increased 1
 - b. The replacement containment building meets the same conditions in the permit. 1
- 4. Modification of a containment building maintenance practice 2
- 5. Storage or treatment of different wastes in containment buildings
 - a. That require additional or different management practices 3
 - b. That do not require additional management practices 2

N. Corrective Action

- 1. Approval of a corrective action management unit pursuant to § 264.552 3
- 2. Approval of a temporary unit or time extension for a temporary unit pursuant to § 264.553. 2
- 3. Approval of a staging pile or staging pile operating term extension pursuant to § 264.554 2

O. Burden Reduction

- 1. Approval of reduced inspection frequency for Performance Track member facilities for:
 - a. Tanks systems pursuant to § 264.195. 1
 - b. Containers pursuant to § 264.174. 1
 - c. Containment buildings pursuant to § 264.1101(c)(4). 1
 - d. Areas subject to spills pursuant to § 264.15(b)(4). 1
- 2. Development of one contingency plan based on Integrated Contingency Plan Guidance pursuant to § 264.52(b) 1
- 3. Changes to recordkeeping and reporting requirements pursuant to: §§ 264.56(i), 264.343(a)(2), 264.1061(b)(1), (d), 264.1062(a)(2), 264.196(f), 264.100(g), and 264.113(e)(5) 1
- 4. Changes to inspection frequency for tank systems pursuant to § 264.195(b) 1
- 5. Changes to detection and compliance monitoring program pursuant to §§ 264.98(d), (g)(2), and (g)(3), 264.99(f), and (g) 1

FOOTNOTE: 1Class 1 modifications requiring prior Departmental approval.

§ 270.43 Termination of permits.

(a) The following are causes for terminating a permit during its term, or for denying a permit renewal application:

- (1) Noncompliance by the permittee with any condition of the permit;
- (2) The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time; or
- (3) A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.

(b) The Director shall follow the applicable procedures in APC&EC Regulation No. 8, 40 CFR Part 124 or Part 22, as appropriate in terminating any permit under this section.

Subsection E – Expiration and Continuation of Permits

§ 270.50 Duration of Permits.

(a) HWM permits shall be effective for a fixed term not to exceed 10 years.

(b) The term of a permit shall not be extended by modification beyond the maximum duration specified in this section.

(c) The Director may issue any permit for a duration that is less than the full allowable term under this section.

(d) Each permit for a land disposal facility shall be reviewed by the Director five years after the date of permit issuance or reissuance and shall be modified as necessary, as provided in § 270.41.

§ 270.51 Continuation of Expiring Permits

(a) EPA permits. When EPA is the permit-issuing authority, the conditions of an expired permit continue in force under 5 U.S.C. 558(c) until the effective date of a new permit (see 40 CFR § 124.15) if:

- (1) The permittee has submitted a timely application under § 270.14 and the applicable sections in §§ 270.15 through 270.29 which is a complete (under § 270.10(c)) application for a new permit; and
- (2) The Regional Administrator through no fault of the permittee, does not issue a new permit with an effective date under 40 CFR 124.15 on or before the expiration date of the previous permit (for example, when issuance is impracticable due to time or resource constraints).

(b) Effect. Permits continued under this section remain fully effective and enforceable.

(c) Enforcement. When the permittee is not in compliance with the conditions of the expiring or expired permit, the Regional Administrator may choose to do any or all of the following:

- (1) Initiate enforcement action based upon the permit which has been continued;
- (2) Issue a notice of intent to deny the new permit under 40 CFR 124.6. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;
- (3) Issue a new permit under part 124 with appropriate conditions; or
- (4) Take other actions authorized by these regulations.

(d) State continuation. In a State with an hazardous waste program authorized under 40 CFR part 271, if a permittee has submitted a timely and complete application under applicable State law and regulations, the terms and conditions of an EPA-issued RCRA permit continue in force beyond the expiration date of the permit, but only until the effective date of the State's issuance or denial of a State RCRA permit.

(e) Standardized permits.

(1) The conditions of your expired standardized permit continue until the effective date of your new permit (see 40 CFR 124.15) if all of the following are true:

- (i) If EPA is the permit-issuing authority.
- (ii) If you submit a timely and complete Notice of Intent under 40 CFR 124.202(b) requesting coverage under a RCRA standardized permit; and
- (iii) If the Director, through no fault on your part, does not issue your permit before your previous permit expires (for example, where it is impractical to make the permit effective by that date because of time or resource constraints).

(2) In some cases, the Director may notify you that you are not eligible for a standardized permit (see 40 CFR 124.206). In those cases, the conditions of your expired permit will continue if you submit the information specified in paragraph (a)(1) of this section (that is, a complete application for a new permit) within 60 days after you receive our notification that you are not eligible for a standardized permit.

Subsection F – Special Forms of Permits

§ 270.60 Permits by rule.

Notwithstanding any other provision of this section or Regulation No. 8, the following shall be deemed to have an HWM

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permit if the conditions listed are met:

(a) [Reserved]

(b) Injection wells. The owner or operator of an injection well disposing of hazardous waste, if the owner or operator:

(1) Has a permit for underground injection issued under 40 CFR Part 144 or 145; and

(2) Complies with the conditions of that permit and the requirements of § 144.14 (requirements for wells managing hazardous waste).

(3) For UIC permits issued after November 8, 1984:

(i) Complies with Section 264.101; and

(ii) Where the UIC well is the only unit at a facility which requires an HWM permit, complies with Section 270.14(d).

(c) Publicly owned treatment works. The owner or operator of a POTW which accepts for treatment hazardous waste, if the owner or operator:

(1) Has an NPDES permit;

(2) Complies with the conditions of that permit; and

(3) Complies with the following regulations:

(i) Section 264.11, Identification number;

(ii) Section 264.71, Use of manifest system;

(iii) Section 264.72, Manifest discrepancies;

(iv) Section 264.73(a) and (b)(1), Operating record;

(v) Section 264.75, Annual report;

(vi) Section 264.76, Unmanifested waste report; and

(vii) For NPDES permits issued after November 8, 1984, Section 264.101.

(4) If the waste meets all Federal, State, and local pretreatment requirements which would be applicable to the waste if it were being discharged into the POTW through a sewer, pipe, or similar conveyance.

§ 270.61 Emergency permits.

(a) Notwithstanding any other provision of this Section or Regulation No. 8, in the event the Director finds an imminent and substantial endangerment to human health or the environment the Director may issue a temporary emergency permit: (1) To a non-permitted facility to allow treatment, storage, or disposal of hazardous waste or (2) to a permitted facility to allow treatment, storage, or disposal of a hazardous waste not covered by an effective permit.

(b) This emergency permit:

(1) May be oral or written. If oral, it shall be followed in five days by a written emergency permit;

(2) Shall not exceed 90 days in duration;

(3) Shall clearly specify the hazardous wastes to be received, and the manner and location of their treatment, storage, or disposal;

(4) May be terminated by the Director at any time

without process if he or she determines that termination is appropriate to protect human health and the environment;

(5) Shall be accompanied by a public notice published under Regulation No. 8 and § 270.7 of this Regulation including:

(i) Name and address of the office granting the emergency authorization;

(ii) Name and location of the permitted HWM facility;

(iii) A brief description of the wastes involved;

(iv) A brief description of the action authorized and reasons for authorizing it; and

(v) Duration of the emergency permit; and

(6) Shall incorporate, to the extent possible and not inconsistent with the emergency situation, all applicable requirements of this part and Sections 264 and 266.

§ 270.62 Hazardous waste incinerator permits.

When an owner or operator of a hazardous waste incineration unit becomes subject to RCRA permit requirements after October 12, 2005, or when an owner or operator of an existing hazardous waste incineration unit demonstrates compliance with the air emission standards and limitations in 40 CFR Part 63, subpart EEE, (i.e., by conducting a comprehensive performance test and submitting a Notification of Compliance under 40 CFR Part 63.1207(j) and 63.1210(d) documenting compliance with all applicable requirements of 40 CFR Part 63, subpart EEE,), the requirements of this section do not apply, except those provisions the Director determines are necessary to ensure compliance with Sections 264.345(a) and 264.345(c) of this Regulation if you elect to comply with § 270.235(a)(1)(i) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events. Nevertheless, the Director may apply the provisions of this section, on a case-by-case basis, for purposes of information collection in accordance with §§ 270.10(k), 270.10(l), 270.32(b)(2), and 270.32(b)(3) of this Regulation.

(a) For the purposes of determining operational readiness following completion of physical construction, the Director must establish permit conditions, including but not limited to allowable waste feeds and operating conditions, in the permit to a new hazardous waste incinerator. These permit conditions will be effective for the minimum time required to bring the incinerator to a point of operational readiness to conduct a trial burn, not to exceed 720 hours operating time for treatment of hazardous waste. The Director may extend the duration of this operational period once, for up to 720 additional hours, at the request of the applicant when good cause is shown. The permit may be modified to reflect the extension according to § 270.42 of this regulation.

(1) Applicants must submit a statement, with Part

B of the permit application, which suggests the conditions necessary to operate in compliance with the performance standards of § 264.343 of this regulation during this period. This statement should include, at a minimum, restrictions on waste constituents, waste feed rates and the operating parameters identified in § 264.345 of this regulation.

(2) The Director will review this statement and any other relevant information submitted with Part B of the permit application and specify requirements for this period sufficient to meet the performance standards of § 264.343 of this regulation based on his engineering judgment.

(b) For the purposes of determining feasibility of compliance with the performance standards of § 264.343 of this regulation and of determining adequate operating conditions under § 264.345 of this regulation, the Director must establish conditions in the permit for a new hazardous waste incinerator to be effective during the trial burn.

(1) Applicants must propose a trial burn plan, prepared under paragraph (b)(2) of this section with a Part B of the permit application.

(2) The trial burn plan must include the following information:

(i) An analysis of each waste or mixture of wastes to be burned which includes:

(A) Heat value of the waste in the form and composition in which it will be burned.

(B) Viscosity (if applicable), or description of the physical form of the waste.

(C) An identification of any hazardous organic constituents listed in Section 261, appendix VIII of this regulation, which are present in the waste to be burned, except that the applicant need not analyze for constituents listed in Section 261, appendix VIII, of this regulation which would reasonably not be expected to be found in the waste. The constituents excluded from analysis must be identified, and the basis for the exclusion stated. The waste analysis must rely on appropriate analytical techniques.

(D) An approximate quantification of the hazardous constituents identified in the waste, within the precision produced by appropriate analytical methods.

(ii) A detailed engineering description of the incinerator for which the permit is sought including:

(A) Manufacturer's name and model number of incinerator (if available).

(B) Type of incinerator.

(C) Linear dimensions of the incinerator unit including the cross sectional area of combustion chamber.

(D) Description of the auxiliary fuel system (type/feed).

(E) Capacity of prime mover.

(F) Description of automatic waste feed cut-off system(s).

(G) Stack gas monitoring and pollution control equipment.

(H) Nozzle and burner design.

(I) Construction materials.

(J) Location and description of temperature, pressure, and flow indicating and control devices.

(iii) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.

(iv) A detailed test schedule for each waste for which the trial burn is planned including date(s), duration, quantity of waste to be burned, and other factors relevant to the Director's decision under paragraph (b)(5) of this section.

(v) A detailed test protocol, including, for each waste identified, the ranges of temperature, waste feed rate, combustion gas velocity, use of auxiliary fuel, and any other relevant parameters that will be varied to affect the destruction and removal efficiency of the incinerator.

(vi) A description of, and planned operating conditions for, any emission control equipment which will be used.

(vii) Procedures for rapidly stopping waste feed, shutting down the incinerator, and controlling emissions in the event of an equipment malfunction.

(viii) Such other information as the Director reasonably finds necessary to determine whether to approve the trial burn plan in light of the purposes of this paragraph and the criteria in paragraph (b)(5) of this section.

(3) The Director, in reviewing the trial burn plan, shall evaluate the sufficiency of the information provided and may require the applicant to supplement this information, if necessary, to achieve the purposes of this paragraph.

(4) Based on the waste analysis data in the trial burn plan, the Director will specify as trial Principal Organic Hazardous Constituents (POHCs), those constituents for which destruction and removal efficiencies must be calculated during the trial burn. These trial POHCs will be specified by the Director based on his estimate of the difficulty of incineration of the constituents identified in the waste analysis, their concentration or mass in the waste feed, and,

for wastes listed in Section 261, Subsection D, of this regulation, the hazardous waste organic constituent or constituents identified in Appendix VII of that part as the basis for listing.

(5) The Director shall approve a trial burn plan if he finds that:

(i) The trial burn is likely to determine whether the incinerator performance standard required by § 264.343 of this regulation can be met;

(ii) The trial burn itself will not present an imminent hazard to human health or the environment;

(iii) The trial burn will help the Director to determine operating requirements to be specified under § 264.345 of this regulation; and

(iv) The information sought in paragraphs (b)(5) (i) and (ii) of this section cannot reasonably be developed through other means.

(6) The *owner or operator* must send a notice to all persons on the facility mailing list as set forth in 40 CFR 124.10(c)(1)(ix) and to the appropriate units of State and local government as set forth in 40 CFR 124.10(c)(1)(x) announcing the scheduled commencement and completion dates for the trial burn. The applicant may not commence the trial burn until after such notice has been issued.

(i) This notice must be mailed within a reasonable time period before the scheduled trial burn. An additional notice is not required if the trial burn is delayed due to circumstances beyond the control of the facility or the permitting agency.

(ii) This notice must contain:

(A) The name and telephone number of the applicant's contact person;

(B) The name and telephone number of the permitting agency's contact office;

(C) The location where the approved trial burn plan and any supporting documents can be reviewed and copied; and

(D) An expected time period for commencement and completion of the trial burn.

(7) During each approved trial burn (or as soon after the burn as is practicable), the applicant must make the following determinations:

(i) A quantitative analysis of the trial POHCs in the waste feed to the incinerator.

(ii) A quantitative analysis of the exhaust gas for the concentration and mass emissions of the trial POHCs, oxygen (O₂) and hydrogen chloride (HCl).

(iii) A quantitative analysis of the scrubber water (if any), ash residues, and other residues,

for the purpose of estimating the fate of the trial POHCs.

(iv) A computation of destruction and removal efficiency (DRE), in accordance with the DRE formula specified in § 264.343(a) of this regulation.

(v) If the HCl emission rate exceeds 1.8 kilograms of HCl per hour (4 pounds per hour), a computation of HCl removal efficiency in accordance with § 264.343(b) of this regulation.

(vi) A computation of particulate emissions, in accordance with § 264.343(c) of this regulation.

(vii) An identification of sources of fugitive emissions and their means of control.

(viii) A measurement of average, maximum, and minimum temperatures and combustion gas velocity.

(ix) A continuous measurement of carbon monoxide (CO) in the exhaust gas.

(x) Such other information as the Director may specify as necessary to ensure that the trial burn will determine compliance with the performance standards in § 264.343 of this regulation and to establish the operating conditions required by § 264.345 of this regulation as necessary to meet that performance standard.

(8) The applicant must submit to the Director a certification that the trial burn has been carried out in accordance with the approved trial burn plan, and must submit the results of all the determinations required in paragraph (b)(7) of this section. This submission shall be made within 90 days of completion of the trial burn, or later if approved by the Director.

(9) All data collected during any trial burn must be submitted to the Director following the completion of the trial burn.

(10) All submissions required by this paragraph must be certified on behalf of the applicant by the signature of a person authorized to sign a permit application or a report under § 270.11.

(11) Based on the results of the trial burn, the Director shall set the operating requirements in the final permit according to § 264.345 of this regulation. The permit modification shall proceed according to § 270.42.

(c) For the purposes of allowing operation of a new hazardous waste incinerator following completion of the trial burn and prior to final modification of the permit conditions to reflect the trial burn results, the Director may establish permit conditions, including but not limited to allowable waste feeds and operating conditions sufficient to meet the requirements of § 264.345 of this regulation, in the permit to a new hazardous waste incinerator. These permit conditions

will be effective for the minimum time required to complete sample analysis, data computation and submission of the trial burn results by the applicant, and modification of the facility permit by the Director.

(1) Applicants must submit a statement, with Part B of the permit application, which identifies the conditions necessary to operate in compliance with the performance standards of § 264.343 of this regulation, during this period. This statement should include, at a minimum, restrictions on waste constituents, waste feed rates, and the operating parameters in § 264.345 of this regulation.

(2) The Director will review this statement and any other relevant information submitted with Part B of the permit application and specify those requirements for this period most likely to meet the performance standards of § 264.343 of this regulation based on his engineering judgment.

(d) For the purpose of determining feasibility of compliance with the performance standards of § 264.343 of this regulation and of determining adequate operating conditions under § 264.345 of this regulation, the applicant for a permit for an existing hazardous waste incinerator must prepare and submit a trial burn plan and perform a trial burn in accordance with § 270.19(b) and paragraphs (b)(2) through (b)(5) and (b)(7) through (b)(10) of this regulation or, instead, submit other information as specified in § 270.19(c). The Director must announce his or her intention to approve the trial burn plan in accordance with the timing and distribution requirements of paragraph (b)(6) of this section. The contents of the notice must include: the name and telephone number of a contact person at the facility; the name and telephone number of a contact office at the permitting agency; the location where the trial burn plan and any supporting documents can be reviewed and copied; and a schedule of the activities that are required prior to permit issuance, including the anticipated time schedule for agency approval of the plan and the time period during which the trial burn would be conducted. Applicants submitting information under § 270.19(a) are exempt from compliance with §§ 264.343 and 264.345 and, therefore, are exempt from the requirement to conduct a trial burn. Applicants who submit trial burn plans and receive approval before submission of a permit application must complete the trial burn and submit the results, specified in paragraph (b)(7) of this section, with part B of the permit application. If completion of this process conflicts with the date set for submission of the part B application, the applicant must contact the Director to establish a later date for submission of the part B application or the trial burn results. Trial burn results must be submitted prior to issuance of the permit. When the applicant submits a trial burn plan with part B of the permit application, the Director will specify a time period prior to permit issuance in which the trial burn must be conducted and the results submitted.

§ 270.63 Permits for land treatment demonstrations using field test or laboratory analyses.

(a) For the purpose of allowing an owner or operator to meet the treatment demonstration requirements of § 264.272 of this regulation, the Director may issue a treatment demonstration permit. The permit must contain only those requirements necessary to meet the standards in § 264.272(c). The permit may be issued either as a treatment or disposal permit covering only the field test or laboratory analyses, or as a two-phase facility permit covering the field tests, or laboratory analyses, and design, construction operation and maintenance of the land treatment unit.

(1) The Director may issue a two-phase facility permit if he finds that, based on information submitted in Part B of the application, substantial, although incomplete or inconclusive, information already exists upon which to base the issuance of a facility permit.

(2) If the Director finds that not enough information exists upon which he can establish permit conditions to attempt to provide for compliance with all of the requirements of Subsection M, he must issue a treatment demonstration permit covering only the field test or laboratory analyses.

(b) If the Director finds that a phased permit may be issued, he will establish, as requirements in the first phase of the facility permit, conditions for conducting the field tests or laboratory analyses. These permit conditions will include design and operating parameters (including the duration of the tests or analyses and, in the case of field tests, the horizontal and vertical dimensions of the treatment zone), monitoring procedures, post-demonstration clean-up activities, and any other conditions which the Director finds may be necessary under § 264.272(c). The Director will include conditions in the second phase of the facility permit to attempt to meet all Subsection M requirements pertaining to unit design, construction, operation, and maintenance. The Director will establish these conditions in the second phase of the permit based upon the substantial but incomplete or inconclusive information contained in the Part B application.

(1) The first phase of the permit will be effective as provided in § 124.15(b) of this regulation.

(2) The second phase of the permit will be effective as provided in paragraph (d) of this section.

(c) When the owner or operator who has been issued a two-phase permit has completed the treatment demonstration, he must submit to the Director a certification, signed by a person authorized to sign a permit application or report under § 270.11, that the field tests or laboratory analyses have been carried out in accordance with the conditions specified in phase one of the permit for conducting such tests or analyses. The owner or operator must also submit all data collected during the field tests or laboratory analyses within 90 days of completion of those tests or analyses unless the Director approves a later date.

(d) If the Director determines that the results of the field

tests or laboratory analyses meet the requirements of § 264.272 of this regulation, he will modify the second phase of the permit to incorporate any requirements necessary for operation of the facility in compliance with part 264, Subsection M, of this regulation, based upon the results of the field tests or laboratory analyses.

(1) This permit modification may proceed under § 270.42, or otherwise will proceed as a modification under § 270.41(a)(2). If such modifications are necessary, the second phase of the permit will become effective only after those modifications have been made.

(2) If no modifications of the second phase of the permit are necessary, the Director will give notice of his final decision to the permit applicant and to each person who submitted written comments on the phased permit or who requested notice of the final decision on the second phase of the permit. The second phase of the permit then will become effective as specified in § 124.15(b).

§ 270.64 Interim permits for UIC wells.

The Director may issue a permit under this part to any Class I UIC well (see 40 CFR 144.6) injecting hazardous wastes. Any such permit shall apply and insure compliance with all applicable requirements of 40 CFR part 264, Subsection R (RCRA standards for wells), and shall be for a term not to exceed two years.

§ 270.65 Research, development, and demonstration permits.

(a) The Director may issue a research, development, and demonstration permit for any hazardous waste treatment facility which proposes to utilize an innovative and experimental hazardous waste treatment technology or process for which permit standards for such experimental activity have not been promulgated under Section 264 or 266. Any such permit shall include such terms and conditions as will assure protection of human health and the environment. Such permits:

(1) Shall provide for the construction of such facilities as necessary, and for operation of the facility for not longer than one year unless renewed as provided in paragraph (d) of this section, and

(2) Shall provide for the receipt and treatment by the facility of only those types and quantities of hazardous waste which the Director deems necessary for purposes of determining the efficacy and performance capabilities of the technology or process and the effects of such technology or process on human health and the environment, and

(3) Shall include such requirements as the Director deems necessary to protect human health and the

environment (including, but not limited to, requirements regarding monitoring, operation, financial responsibility, closure, and remedial action), and such requirements as the Administrator deems necessary regarding testing and providing of information to the Administrator with respect to the operation of the facility.

(b) For the purpose of expediting review and issuance of permits under this section, the Administrator may, consistent with the protection of human health and the environment, modify or waive permit application and permit issuance requirements in Section 270 and Regulation No. 8 except that there may be no modification or waiver of regulations regarding financial responsibility (including insurance) or of procedures regarding public participation.

(c) The Administrator may order an immediate termination of all operations at the facility at any time he determines that termination is necessary to protect human health and the environment.

(d) Any permit issued under this section may be renewed not more than three times. Each such renewal shall be for a period of not more than 1 year.

§ 270.66 Permits for boilers and industrial furnaces burning hazardous waste.

When an owner or operator of a cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace becomes subject to RCRA permit requirements after October 12, 2005 or when an owner or operator of an existing cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace demonstrates compliance with the air emission standards and limitations in 40 CFR Part 63, subpart EEE, (i.e., by conducting a comprehensive performance test and submitting a Notification of Compliance under 40 CFR Part 63.1207(j) and 63.1210(d) documenting compliance with all applicable requirements of 40 CFR Part 63, subpart EEE,), the requirements of this section do not apply. The requirements of this section do apply, however, if the Director determines certain provisions are necessary to ensure compliance with §§ 266.102(e)(1) and 266.102(e)(2)(iii) of this Regulation if you elect to comply with § 270.235(a)(1)(i) to minimize emissions of toxic compounds from startup, shutdown, and malfunction events; or if you are an area source and elect to comply with the §§ 266.105, 266.106, and 266.107 standards and associated requirements for particulate matter, hydrogen chloride and chlorine gas, and non-mercury metals; or the Director determines certain provisions apply, on a case-by-case basis, for purposes of information collection in accordance with §§ 270.10(k), 270.10(l), 270.32(b)(2), and 270.32(b)(3) of this Regulation.

(a) General. Owners and operators of new boilers and industrial furnaces (those not operating under the interim status standards of § 266.103 of this regulation) are subject

to paragraphs (b) through (f) of this section. Boilers and industrial furnaces operating under the interim status standards of § 266.103 of this regulation are subject to paragraph (g) of this section.

(b) Permit operating periods for new boilers and industrial furnaces. A permit for a new boiler or industrial furnace shall specify appropriate conditions for the following operating periods:

(1) Pretrial burn period. For the period beginning with initial introduction of hazardous waste and ending with initiation of the trial burn, and only for the minimum time required to bring the boiler or industrial furnace to a point of operational readiness to conduct a trial burn, not to exceed 720 hours operating time when burning hazardous waste, the Director must establish in the Pretrial Burn Period of the permit conditions, including but not limited to, allowable hazardous waste feed rates and operating conditions. The Director may extend the duration of this operational period once, for up to 720 additional hours, at the request of the applicant when good cause is shown. The permit may be modified to reflect the extension according to § 270.42.

(i) Applicants must submit a statement, with part B of the permit application, that suggests the conditions necessary to operate in compliance with the standards of §§ 266.104 through 266.107 of this regulation during this period. This statement should include, at a minimum, restrictions on the applicable operating requirements identified in § 266.102(e) of this regulation.

(ii) The Director will review this statement and any other relevant information submitted with part B of the permit application and specify requirements for this period sufficient to meet the performance standards of §§ 266.104 through 266.107 of this regulation based on his/her engineering judgment.

(2) Trial burn period. For the duration of the trial burn, the Director must establish conditions in the permit for the purposes of determining feasibility of compliance with the performance standards of §§ 266.104 through 266.107 of this regulation and determining adequate operating conditions under § 266.102(e) of this regulation. Applicants must propose a trial burn plan, prepared under paragraph (c) of this section, to be submitted with part B of the permit application.

(3) Post-trial burn period. (i) For the period immediately following completion of the trial burn, and only for the minimum period sufficient to allow sample analysis, data computation, and submission of the trial burn results by the applicant, and review of the trial burn results and modification of the facility permit by the Director to reflect the trial burn

results, the Director will establish the operating requirements most likely to ensure compliance with the performance standards of §§ 266.104 through 266.107 of this regulation based on his engineering judgment.

(ii) Applicants must submit a statement, with part B of the application, that identifies the conditions necessary to operate during this period in compliance with the performance standards of §§ 266.104 through 266.107 of this regulation. This statement should include, at a minimum, restrictions on the operating requirements provided by § 266.102(e) of this regulation.

(iii) The Director will review this statement and any other relevant information submitted with part B of the permit application and specify requirements for this period sufficient to meet the performance standards of §§ 266.104 through 266.107 of this regulation based on his/her engineering judgment.

(4) Final permit period. For the final period of operation, the Director will develop operating requirements in conformance with § 266.102(e) of this regulation that reflect conditions in the trial burn plan and are likely to ensure compliance with the performance standards of §§ 266.104 through 266.107 of this regulation. Based on the trial burn results, the Director shall make any necessary modifications to the operating requirements to ensure compliance with the performance standards. The permit modification shall proceed according to § 270.42.

(c) Requirements for trial burn plans. The trial burn plan must include the following information. The Director, in reviewing the trial burn plan, shall evaluate the sufficiency of the information provided and may require the applicant to supplement this information, if necessary, to achieve the purposes of this paragraph:

(1) An analysis of each feed stream, including hazardous waste, other fuels, and industrial furnace feed stocks, as fired, that includes:

(i) Heating value, levels of antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, silver, thallium, total chlorine/chloride, and ash;

(ii) Viscosity or description of the physical form of the feed stream;

(2) An analysis of each hazardous waste, as fired, including:

(i) An identification of any hazardous organic constituents listed in appendix VIII, Section 261, of this regulation that are present in the feed stream, except that the applicant need not analyze for constituents listed in appendix VIII that would reasonably not be expected to be found in the hazardous waste. The

constituents excluded from analysis must be identified and the basis for this exclusion explained. The waste analysis must be conducted in accordance with appropriate analytical techniques.

(ii) An approximate quantification of the hazardous constituents identified in the hazardous waste, within the precision produced by appropriate analytical methods.

(iii) A description of blending procedures, if applicable, prior to firing the hazardous waste, including a detailed analysis of the hazardous waste prior to blending, an analysis of the material with which the hazardous waste is blended, and blending ratios.

(3) A detailed engineering description of the boiler or industrial furnace, including:

(i) Manufacturer's name and model number of the boiler or industrial furnace;

(ii) Type of boiler or industrial furnace;

(iii) Maximum design capacity in appropriate units;

(iv) Description of the feed system for the hazardous waste, and, as appropriate, other fuels and industrial furnace feedstocks;

(v) Capacity of hazardous waste feed system;

(vi) Description of automatic hazardous waste feed cutoff system(s); and

(vii) Description of any pollution control system; and

(viii) Description of stack gas monitoring and any pollution control monitoring systems.

(4) A detailed description of sampling and monitoring procedures including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis.

(5) A detailed test schedule for each hazardous waste for which the trial burn is planned, including date(s), duration, quantity of hazardous waste to be burned, and other factors relevant to the Director's decision under paragraph (b)(2) of this section.

(6) A detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feed rate, and, as appropriate, the feed rates of other fuels and industrial furnace feedstocks, and any other relevant parameters that may affect the ability of the boiler or industrial furnace to meet the performance standards in §§ 266.104 through 266.107 of this regulation.

(7) A description of, and planned operating conditions for, any emission control equipment that will be used.

(8) Procedures for rapidly stopping the hazardous waste feed and controlling emissions in the event of an equipment malfunction.

(9) Such other information as the Director

reasonably finds necessary to determine whether to approve the trial burn plan in light of the purposes of this paragraph and the criteria in paragraph (b)(2) of this section.

(d) Trial burn procedures. (1) A trial burn must be conducted to demonstrate conformance with the standards of §§ 266.104 through 266.107 of this regulation under an approved trial burn plan.

(2) The Director shall approve a trial burn plan if he/she finds that:

(i) The trial burn is likely to determine whether the boiler or industrial furnace can meet the performance standards of §§ 266.104 through 266.107 of this regulation;

(ii) The trial burn itself will not present an imminent hazard to human health and the environment;

(iii) The trial burn will help the Director to determine operating requirements to be specified under § 266.102(e) of this regulation; and

(iv) The information sought in the trial burn cannot reasonably be developed through other means.

(3) The *owner or operator* must send a notice to all persons on the facility mailing list as set forth in 40 CFR 124.10(c)(1)(ix) and to the appropriate units of State and local government as set forth in 40 CFR 124.10(c)(1)(x) announcing the scheduled commencement and completion dates for the trial burn. The applicant may not commence the trial burn until after such notice has been issued.

(i) This notice must be mailed within a reasonable time period before the trial burn. An additional notice is not required if the trial burn is delayed due to circumstances beyond the control of the facility or the permitting agency.

(ii) This notice must contain:

(A) The name and telephone number of applicant's contact person;

(B) The name and telephone number of the permitting agency contact office;

(C) The location where the approved trial burn plan and any supporting documents can be reviewed and copied; and

(D) An expected time period for commencement and completion of the trial burn.

(4) The applicant must submit to the Director a certification that the trial burn has been carried out in accordance with the approved trial burn plan, and must submit the results of all the determinations required in paragraph (c) of this section. This submission shall be made within 90 days of completion of the trial burn, or later if approved by

the Director.

(5) All data collected during any trial burn must be submitted to the Director following completion of the trial burn.

(6) All submissions required by this paragraph must be certified on behalf of the applicant by the signature of a person authorized to sign a permit application or a report under § 270.11.

(e) Special procedures for DRE trial burns. When a DRE trial burn is required under § 266.104(a) of this regulation, the Director will specify (based on the hazardous waste analysis data and other information in the trial burn plan) as trial Principal Organic Hazardous Constituents (POHCs) those compounds for which destruction and removal efficiencies must be calculated during the trial burn. These trial POHCs will be specified by the Director based on information including his/her estimate of the difficulty of destroying the constituents identified in the hazardous waste analysis, their concentrations or mass in the hazardous waste feed, and, for hazardous waste containing or derived from wastes listed in Section 261, Subsection D of this regulation, the hazardous waste organic constituent(s) identified in Appendix VII of that part as the basis for listing.

(f) Determinations based on trial burn. During each approved trial burn (or as soon after the burn as is practicable), the applicant must make the following determinations:

(1) A quantitative analysis of the levels of antimony, arsenic, barium, beryllium, cadmium, chromium, lead, mercury, thallium, silver, and chlorine/chloride, in the feed streams (hazardous waste, other fuels, and industrial furnace feedstocks);

(2) When a DRE trial burn is required under § 266.104(a) of this regulation:

(i) A quantitative analysis of the trial POHCs in the hazardous waste feed;

(ii) A quantitative analysis of the stack gas for the concentration and mass emissions of the trial POHCs; and

(iii) A computation of destruction and removal efficiency (DRE), in accordance with the DRE formula specified in § 266.104(a) of this regulation;

(3) When a trial burn for chlorinated dioxins and furans is required under § 266.104(e) of this regulation, a quantitative analysis of the stack gas for the concentration and mass emission rate of the 2,3,7,8-chlorinated tetra-octa congeners of chlorinated dibenzo-p-dioxins and furans, and a computation showing conformance with the emission standard.

(4) When a trial burn for particulate matter, metals, or HCl/Cl₂ is required under §§ 266.105, 266.106 (c) or (d), or 266.107 (b)(2) or (c) of this regulation, a quantitative analysis of the stack gas for the concentrations and mass emissions of particulate matter, metals, or hydrogen chloride (HCl) and chlorine (Cl₂), and computations showing

conformance with the applicable emission performance standards;

(5) When a trial burn for DRE, metals, or HCl/Cl₂ is required under §§ 266.104(a), 266.106 (c) or (d), or 266.107 (b)(2) or (c) of this regulation, a quantitative analysis of the scrubber water (if any), ash residues, other residues, and products for the purpose of estimating the fate of the trial POHCs, metals, and chlorine/chloride;

(6) An identification of sources of fugitive emissions and their means of control;

(7) A continuous measurement of carbon monoxide (CO), oxygen, and where required, hydrocarbons (HC), in the stack gas; and

(8) Such other information as the Director may specify as necessary to ensure that the trial burn will determine compliance with the performance standards in §§ 266.104 through 266.107 of this regulation and to establish the operating conditions required by § 266.102(e) of this regulation as necessary to meet those performance standards.

(g) Interim status boilers and industrial furnaces. For the purpose of determining feasibility of compliance with the performance standards of § 266.104 through 266.107 of this regulation and of determining adequate operating conditions under § 266.103 of this regulation, applicants owning or operating existing boilers or industrial furnaces operated under the interim status standards of § 266.103 of this regulation must either prepare and submit a trial burn plan and perform a trial burn in accordance with the requirements of this section or submit other information as specified in § 270.22(a)(6). The Director must announce his or her intention to approve of the trial burn plan in accordance with the timing and distribution requirements of paragraph (d)(3) of this section. The contents of the notice must include: the name and telephone number of a contact person at the facility; the name and telephone number of a contact office at the permitting agency; the location where the trial burn plan and any supporting documents can be reviewed and copied; and a schedule of the activities that are required prior to permit issuance, including the anticipated time schedule for agency approval of the plan and the time periods during which the trial burn would be conducted. Applicants who submit a trial burn plan and receive approval before submission of the part B permit application must complete the trial burn and submit the results specified in paragraph (f) of this section with the part B permit application. If completion of this process conflicts with the date set for submission of the part B application, the applicant must contact the Director to establish a later date for submission of the part B application or the trial burn results. If the applicant submits a trial burn plan with part B of the permit application, the trial burn must be conducted and the results submitted within a time period prior to permit issuance to be specified by the Director.

§ 270.67 RCRA standardized permits for storage and treatment units.

RCRA standardized permits are special forms of permits for TSD owners or operators that:

(a) Generate hazardous waste and then non-thermally treat or store the hazardous waste on-site in tanks, containers, or containment buildings; or

(b) Receive hazardous waste generated off-site by a generator under the same ownership as the receiving facility, and then store or non-thermally treat the hazardous waste in containers, tanks, or containment buildings. Standardized permit facility owners or operators are regulated under Subsection J of this Section, 40 CFR Part 124 Subsection G, Regulation No. 8, and Section 267 of this Regulation.

§ 270.68 Remedial Action Plans (RAPs).

Remedial Action Plans (RAPs) are special forms of permits that are regulated under subsection H of this Section.

Subsection G -- Interim Status

§ 270.70 Qualifying for interim status.

(a) *Any person who owns or operates an existing hazardous waste management facility shall have interim status and shall be treated as having been issued a permit to the extent he or she has complied with the requirements of Act 406 of 1979 (Ark. Code, Ann. §§ 8-7-201 et seq.), as amended, § 270.10(e), and § 3010(a) of RCRA.*

(b) *If the Department determines that a Part A application is deficient it may notify the owner or operator that he or she is not entitled to interim status. The owner or operator will then be subject to enforcement for operating without a permit.*

§ 270.71 Operation during interim status.

(a) During the interim status period the facility shall not:

- (1) Treat, store, or dispose of hazardous waste not specified in Part A of the permit application;
- (2) Employ processes not specified in Part A of the permit application; or
- (3) Exceed the design capacities specified in Part A of the permit application.

(b) Interim status standards. During interim status, owners or operators shall comply with the interim status standards at Section 265 and 40 CFR Part 265.

§ 270.72 Changes during interim status.

(a) Except as provided in paragraph (b), the owner or operator of an interim status facility may make the following changes at the facility:

(1) Treatment, storage, or disposal of new hazardous wastes not previously identified in Part A of the permit application (and, in the case of newly listed or identified wastes, addition of the units being used to treat, store, or dispose of the hazardous wastes on the effective date of the listing or identification) if the owner or operator submits a revised Part A permit application prior to such treatment, storage, or disposal;

(2) Increases in the design capacity of processes used at the facility if the owner or operator submits a revised Part A permit application prior to such a change (along with a justification explaining the need for the change) and the Director approves the changes because:

- (i) There is a lack of available treatment, storage, or disposal capacity at other hazardous waste management facilities, or
- (ii) The change is necessary to comply with a Federal, State, or local requirement.

(3) Changes in the processes for the treatment, storage, or disposal of hazardous waste or addition of processes if the owner or operator submits a revised Part A permit application prior to such change (along with a justification explaining the need for the change) and the Director approves the change because:

- (i) The change is necessary to prevent a threat to human health and the environment because of an emergency situation, or
- (ii) The change is necessary to comply with a Federal, State, or local requirement.

(4) Changes in the ownership or operational control of a facility if the new owner or operator submits a revised Part A permit application no later than 90 days prior to the scheduled change. When a transfer of operational control of a facility occurs, the old owner or operator shall comply with the requirements of Section 265, Subsection H (Financial Requirements), until the new owner or operator has demonstrated to the Director that he is complying with the requirements of that Subsection. The new owner or operator must demonstrate compliance with Subsection H requirements within six months of the date of the change in ownership or operational control of the facility. Upon demonstration to the Director by the new owner or operator of compliance with Subsection H, the Director shall notify the old owner or operator in writing that he no longer needs to comply with Subsection H as of the date of demonstration. All other interim status duties are transferred effective immediately upon the date of

the change in ownership or operational control of the facility.

(5) Changes made in accordance with an interim status corrective action order issued by EPA under section 3008(h) or other Federal authority, by the Department under comparable State authority, or by a court in a judicial action brought by EPA or by the Department. Changes under this paragraph are limited to the treatment, storage, or disposal of solid waste from releases that originate within the boundary of the facility.

(6) Addition of newly regulated units for the treatment, storage, or disposal of hazardous waste if the owner or operator submits a revised part A permit application on or before the date on which the unit becomes subject to the new requirements.

(b) Except as specifically allowed under this paragraph, changes listed under paragraph (a) of this section may not be made if they amount to reconstruction of the hazardous waste management facility. Reconstruction occurs when the capital investment in the changes to the facility exceeds 50 percent of the capital cost of a comparable entirely new hazardous waste management facility. If all other requirements are met, the following changes may be made even if they amount to a reconstruction:

(1) Changes made solely for the purposes of complying with the requirements of 40 CFR 265.193 for tanks and ancillary equipment.

(2) If necessary to comply with Federal, State, or local requirements, changes to an existing unit, changes solely involving tanks or containers, or addition of replacement surface impoundments that satisfy the standards of section 3004(o).

(3) Changes that are necessary to allow owners or operators to continue handling newly listed or identified hazardous wastes that have been treated, stored, or disposed of at the facility prior to the effective date of the rule establishing the new listing or identification.

(4) Changes during closure of a facility or of a unit within a facility made in accordance with an approved closure plan.

(5) Changes necessary to comply with an interim status corrective action order issued by EPA under section 3008(h) or other Federal authority, by the Department under comparable State authority, or by a court in a judicial proceeding brought by EPA or the Department, provided that such changes are limited to the treatment, storage, or disposal of solid waste from releases that originate within the boundary of the facility.

(6) Changes to treat or store, in tanks, containers, or containment buildings, hazardous wastes subject to land disposal restrictions imposed by Section 268, 40 CFR Part 268 or RCRA section 3004, provided that such changes are made solely for the purpose of complying with Section 268, Part 268 or

RCRA section 3004.

(7) Addition of newly regulated units under paragraph (a)(6) of this section.

(8) Changes necessary to comply with standards under 40 CFR part 63, Subpart EEE-National Emission Standards for Hazardous Air Pollutants From Hazardous Waste Combustors.

§ 270.73 Termination of interim status.

Interim status terminates when:

(a) Final administrative disposition of a permit application, except an application for a remedial action plan (RAP) under subsection H of this Section, is made.

(b) Interim status is terminated as provided in § 270.10(e)(5).

(c) For owners or operators of each land disposal facility which has been granted interim status prior to November 8, 1984, on November 8, 1985, unless:

(1) The owner or operator submits a Part B application for a permit for such facility prior to that date; and

(2) The owner or operator certifies that such facility is in compliance with all applicable ground-water monitoring and financial responsibility requirements.

(d) For owners or operators of each land disposal facility which is in existence on the effective date of statutory or regulatory amendments under the Act that render the facility subject to the requirement to have an HWM permit and which is granted interim status, twelve months after the date on which the facility first becomes subject to such permit requirement unless the owner or operator of such facility:

(1) Submits a Part B application for an HWM permit for such facility before the date 12 months after the date on which the facility first becomes subject to such permit requirement; and

(2) Certifies that such facility is in compliance with all applicable ground water monitoring and financial responsibility requirements.

(e) For owners or operators of any land disposal unit that is granted authority to operate under § 270.72(a) (1), (2) or (3), on the date 12 months after the effective date of such requirement, unless the owner or operator certifies that such unit is in compliance with all applicable ground-water monitoring and financial responsibility requirements.

(f) For owners and operators of each incinerator facility which has achieved interim status prior to November 8, 1984, interim status terminates on November 8, 1989, unless the owner or operator of the facility submits a part B application for an HWM permit for an incinerator facility by November 8, 1986.

(g) For owners or operators of any facility (other than a land disposal or an incinerator facility) which has achieved interim status prior to November 8, 1984, interim status terminates on November 8, 1992, unless the owner or operator

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of the facility submits a part B application for an HWM permit for the facility by November 8, 1988.

Subsection H – Remedial Action Plans (RAPs)

§ 270.79 Why is this subpart written in a special format?

This subpart is written in a special format to make it easier to understand the regulatory requirements. Like other Environmental Protection Agency (EPA) regulations, this establishes enforceable legal requirements. For this Subpart, “I” and “you” refer to the owner/operator.

General Information

§ 270.80 What is a RAP?

(a) A RAP is a special form of RCRA permit that you, as an owner or operator, may obtain, instead of a permit issued under §§ 270.3 through 270.66, to authorize you to treat, store, or dispose of hazardous remediation waste (as defined in Sec. 260.10 of this chapter) at a remediation waste management site. A RAP may only be issued for the area of contamination where the remediation wastes to be managed under the RAP originated, or areas in close proximity to the contaminated area, except as allowed in limited circumstances under § 270.230.

(b) The requirements in §§ 270.3 through 270.66 do not apply to RAPs unless those requirements for traditional RCRA permits are specifically required under §§ 270.80 through 270.230. The definitions in § 270.2 apply to RAPs.

(c) Notwithstanding any other provision of this Section, Regulation No. 8, or 40 CFR Part 124, any document that meets the requirements in this section constitutes a RCRA permit under RCRA section 3005(c).

(d) A RAP may be:

(1) A stand-alone document that includes only the information and conditions required by this subsection; or

(2) Part (or parts) of another document that includes information and/or conditions for other activities at the remediation waste management site, in addition to the information and conditions required by this subsection.

(e) If you are treating, storing, or disposing of hazardous remediation wastes as part of a cleanup compelled by Federal or State cleanup authorities, your RAP does not affect your obligations under those authorities in any way.

(f) If you receive a RAP at a facility operating under interim status, the RAP does not terminate your interim status.

§ 270.85 When do I need a RAP?

(a) Whenever you treat, store, or dispose of hazardous remediation wastes in a manner that requires a RCRA permit under § 270.1, you must either obtain:

(1) A RCRA permit according to §§ 270.3 through 270.66; or

(2) A RAP according to this subsection.

(b) Treatment units that use combustion of hazardous remediation wastes at a remediation waste management site are not eligible for RAPs under this Subsection.

(c) You may obtain a RAP for managing hazardous remediation waste at an already permitted RCRA facility. You must have these RAPs approved as a modification to your existing permit according to the requirements of § 270.41 or § 270.42 instead of the requirements in this Subsection. When you submit an application for such a modification, however, the information requirements in §§ 270.42(a)(1)(i), (b)(1)(iv), and (c)(1)(iv) do not apply; instead, you must submit the information required under § 270.110. When your permit is modified the RAP becomes part of the RCRA permit. Therefore when your permit (including the RAP portion) is modified, revoked and reissued, terminated or when it expires, it will be modified according to the applicable requirements in §§ 270.40 through 270.42, revoked and reissued according to the applicable requirements in §§ 270.41 and 270.43, terminated according to the applicable requirements in § 270.43, and expire according to the applicable requirements in §§ 270.50 and 270.51.

§ 270.90 Does my RAP grant me any rights or relieve me of any obligations?

The provisions of § 270.4 apply to RAPs. (Note: The provisions of § 270.4(a) provide you assurance that, as long as you comply with your RAP, the Department and EPA will consider you in compliance with Subtitle C of RCRA, and will not take enforcement actions against you. However, you should be aware of four exceptions to this provision that are listed in § 270.4.)

Applying for a RAP

§ 270.95 How do I apply for a RAP?

To apply for a RAP, you must complete an application, sign it, and submit it to the Director according to the requirements in this subpart.

§ 270.100 Who must obtain a RAP?

When a facility or remediation waste management site is owned by one person, but the treatment, storage or disposal activities are operated by another person, it is the operator's

duty to obtain a RAP, except that the owner must also sign the RAP application.

§ 270.105 Who must sign the application and any required reports for a RAP?

Both the owner and the operator must sign the RAP application and any required reports according to § 270.11(a), (b), and (c). In the application, both the owner and the operator must also make the certification required under § 270.11(d)(1). However, the owner may choose the alternative certification under § 270.11(d)(2) if the operator certifies under § 270.11(d)(1).

§ 270.110 What must I include in my application for a RAP?

You must include the following information in your application for a RAP:

- (a) The name, address, and EPA identification number of the remediation waste management site;
- (b) The name, address, and telephone number of the owner and operator;
- (c) The latitude and longitude of the site;
- (d) The United States Geological Survey (USGS) or county map showing the location of the remediation waste management site;
- (e) A scaled drawing of the remediation waste management site showing:
 - (1) The remediation waste management site boundaries;
 - (2) Any significant physical structures; and
 - (3) The boundary of all areas on-site where remediation waste is to be treated, stored or disposed;
- (f) A specification of the hazardous remediation waste to be treated, stored or disposed of at the facility or remediation waste management site. This must include information on:
 - (1) Constituent concentrations and other properties of the hazardous remediation wastes that may affect how such materials should be treated and/or otherwise managed;
 - (2) An estimate of the quantity of these wastes; and
 - (3) A description of the processes you will use to treat, store, or dispose of this waste including technologies, handling systems, design and operating parameters you will use to treat hazardous remediation wastes before disposing of them according to the LDR standards of Section 268 of this regulation, as applicable;
- (g) Enough information to demonstrate that operations that follow the provisions in your RAP application will ensure compliance with applicable requirements of Sections 264, 266, and 268 of this regulation;
- (h) Such information as may be necessary to enable the

Director to carry out his duties under other State and Federal laws as is required for traditional RCRA permits under §270.14(b)(20);

(i) Any other information the Director decides is necessary for demonstrating compliance with this subsection or for determining any additional RAP conditions that are necessary to protect human health and the environment.

§ 270.115 What if I want to keep this information confidential?

Part 2 (Public Information) of this section allows you to claim as confidential any or all of the information you submit to the Department or EPA under this subsection. You must assert any such claim at the time that you submit your RAP application or other submissions by stamping the words “confidential business information” on each page containing such information. If you do assert a claim at the time you submit the information, ADEQ will treat the information according to the procedures in § 270.12 of this regulation. If you do not assert a claim at the time you submit the information, the Department may make the information available to the public without further notice to you. ADEQ will deny any requests for confidentiality of your name and/or address, or other information which is required to be made accessible under the Arkansas Freedom of Information Act.

§ 270.120 To whom must I submit my RAP application?

You must submit your application for a RAP to the Director for approval.

§ 270.125 If I submit my RAP application as part of another document, what must I do?

If you submit your application for a RAP as a part of another document, you must clearly identify the components of that document that constitute your RAP application.

Getting a RAP Approved

§ 270.130 What is the process for approving or denying my application for a RAP?

(a) If the Director tentatively finds that your RAP application includes all of the information required by § 270.110 and that your proposed remediation waste management activities meet the regulatory standards, the Director will make a tentative decision to approve your RAP application. The Director will then prepare a draft RAP and provide an opportunity for public comment before making a final decision on your RAP application, according to this

subsection.

(b) If the Director tentatively finds that your RAP application does not include all of the information required by § 270.110 or that your proposed remediation waste management activities do not meet the regulatory standards, the Director may request additional information from you or ask you to correct deficiencies in your application. If you fail or refuse to provide any additional information the Director requests, or to correct any deficiencies in your RAP application, the Director may make a tentative decision to deny your RAP application. After making this tentative decision, the Director will prepare a notice of intent to deny your RAP application (“notice of intent to deny”) and provide an opportunity for public comment before making a final decision on your RAP application, according to the requirements in this Subpart. The Director may deny the RAP application either in its entirety or in part.

§ 270.135 What must the Director include in a draft RAP?

If the Director prepares a draft RAP, it must include the:

- (a) Information required under § 270.110(a) through (f);
- (b) The following terms and conditions:

(1) Terms and conditions necessary to ensure that the operating requirements specified in your RAP comply with applicable requirements of Sections 264, 266, and 268 of this regulation (including any recordkeeping and reporting requirements). In satisfying this provision, the Director may incorporate, expressly or by reference, applicable requirements of Sections 264, 266, and 268 of this regulation into the RAP or establish site-specific conditions as required or allowed by Sections 264, 266, and 268 of this regulation;

(2) Terms and conditions in § 270.30;

(3) Terms and conditions for modifying, revoking and reissuing, and terminating your RAP, as provided in § 270.170; and

(4) Any additional terms or conditions that the Director determines are necessary to protect human health and the environment, including any terms and conditions necessary to respond to spills and leaks during use of any units permitted under the RAP; and

(c) If the draft RAP is part of another document, as described in § 270.80(d)(2), the Director must clearly identify the components of that document that constitute the draft RAP.

§ 270.140 What else must the Director prepare in addition to the draft RAP or notice of intent to deny?

Once the Director has prepared the draft RAP or notice of

intent to deny, he must then:

(a) Prepare a statement of basis that briefly describes the derivation of the conditions of the draft RAP and the reasons for them, or the rationale for the notice of intent to deny;

(b) Compile an administrative record, including:

(1) The RAP application, and any supporting data furnished by the applicant;

(2) The draft RAP or notice of intent to deny;

(3) The statement of basis and all documents cited therein (material readily available at the Department offices or published material that is generally available need not be physically included with the rest of the record, as long as it is specifically referred to in the statement of basis); and

(4) Any other documents that support the decision to approve or deny the RAP; and

(c) Make information contained in the administrative record available for review by the public upon request.

§ 270.145 What are the procedures for public comment on the draft RAP or notice of intent to deny?

(a) The Director must:

(1) Send notice to you of his intention to approve or deny your RAP application, and send you a copy of the statement of basis;

(2) Publish a notice of his intention to approve or deny your RAP application in a major local newspaper of general circulation;

(3) Broadcast his intention to approve or deny your RAP application over a local radio station; and

(4) Send a notice of his intention to approve or deny your RAP application to each unit of local government having jurisdiction over the area in which your site is located, and to each State agency having any authority under State law with respect to any construction or operations at the site.

(b) The notice required by paragraph (a) of this section must provide an opportunity for the public to submit written comments on the draft RAP or notice of intent to deny within at least 45 days.

(c) The notice required by paragraph (a) of this section must include:

(1) The name and address of the office processing the RAP application;

(2) The name and address of the RAP applicant, and if different, the remediation waste management site or activity the RAP will regulate;

(3) A brief description of the activity the RAP will regulate;

(4) The name, address and telephone number of a person from whom interested persons may obtain further information, including copies of the draft RAP or notice of intent to deny, statement of basis, and the RAP application;

(5) A brief description of the comment procedures in this section, and any other procedures by which the public may participate in the RAP decision;

(6) If a hearing is scheduled, the date, time, location and purpose of the hearing;

(7) If a hearing is not scheduled, a statement of procedures to request a hearing;

(8) The location of the administrative record, and times when it will be open for public inspection; and

(9) Any additional information the Director considers necessary or proper.

(d) If, within the comment period, the Director receives written notice of opposition to his intention to approve or deny your RAP application and a request for a hearing, the Director must hold an informal public hearing to discuss issues relating to the approval or denial of your RAP application. The Director may also determine on his own initiative that an informal hearing is appropriate. The hearing must include an opportunity for any person to present written or oral comments. Whenever possible, the Director must schedule this hearing at a location convenient to the nearest population center to the remediation waste management site and give notice according to the requirements in paragraph (a) of this section. This notice must, at a minimum, include the information required by paragraph (c) of this section and:

(1) Reference to the date of any previous public notices relating to the RAP application;

(2) The date, time and place of the hearing; and

(3) A brief description of the nature and purpose of the hearing, including the applicable rules and procedures.

§ 270.150 How will the Director make a final decision on my RAP application?

(a) The Director must consider and respond to any significant comments raised during the public comment period, or during any hearing on the draft RAP or notice of intent to deny, and revise your draft RAP based on those comments, as appropriate.

(b) If the Director determines that your RAP includes the information and terms and conditions required in § 270.135, then he will issue a final decision approving your RAP and, in writing, notify you and all commenters on your draft RAP that your RAP application has been approved.

(c) If the Director determines that your RAP does not include the information required in § 270.135, then he will issue a final decision denying your RAP and, in writing, notify you and all commenters on your draft RAP that your RAP application has been denied.

(d) If the Director's final decision is that the tentative decision to deny the RAP application was incorrect, he will withdraw the notice of intent to deny and proceed to prepare a draft RAP, according to the requirements in this subsection.

(e) When the Director issues his final RAP decision, he must refer to the procedures for appealing the decision under

§ 270.155.

(f) Before issuing the final RAP decision, the Director must compile an administrative record. Material readily available at the issuing office or published materials which are generally available and which are included in the administrative record need not be physically included with the rest of the record as long as it is specifically referred to in the statement of basis or the response to comments. The administrative record for the final RAP must include information in the administrative record for the draft RAP (see § 270.140(b)) and:

(1) All comments received during the public comment period;

(2) Tapes or transcripts of any hearings;

(3) Any written materials submitted at these hearings;

(4) The responses to comments;

(5) Any new material placed in the record since the draft RAP was issued;

(6) Any other documents supporting the RAP; and

(7) A copy of the final RAP.

(g) The Director must make information contained in the administrative record available for review by the public upon request.

§ 270.155 May the decision to approve or deny my RAP application be administratively appealed?

(a) Any commenter on the draft RAP or notice of intent to deny, or any participant in any public hearing(s) on the draft RAP, may appeal the Director's decision to approve or deny your RAP application to the Arkansas Pollution Control & Ecology Commission under APC&EC Regulation No. 8 (Administrative Procedures). Any person who did not file comments, or did not participate in any public hearing(s) on the draft RAP, may petition for administrative review only to the extent of the changes from the draft to the final RAP decision. Appeals of RAPs may be made to the same extent as for final permit decisions under Regulation No. 8 (or a decision under § 270.29 to deny a permit for the active life of a RCRA hazardous waste management facility or unit). Instead of the notice required under 40 CFR 124.19(c) and 124.10, the Director will give public notice of any grant of review of RAPs by the Commission through the same means used to provide notice under § 270.145. The notice will include:

(1) The briefing schedule for the appeal as provided by the Commission;

(2) A statement that any interested person may file an amicus brief with the Commission; and

(3) The information specified in § 270.145(c), as appropriate.

(b) This appeal is a prerequisite to seeking judicial review of these Department actions.

US EPA ARCHIVE DOCUMENT

§ 270.160 When does my RAP become effective?

Your RAP becomes effective on the date the Director serves notice to you and all commenters that your RAP is approved unless:

- (a) The Director specifies a later effective date in his decision;
- (b) You or another person has appealed your RAP under § 270.155 (if your RAP is appealed, and the request for review is granted under § 270.155, conditions of your RAP are stayed according to Regulation No. 8); or
- (c) No commenters requested a change in the draft RAP, in which case the RAP becomes effective immediately when it is issued.

§ 270.165 When may I begin physical construction of new units permitted under the RAP?

You must not begin physical construction of new units permitted under the RAP for treating, storing or disposing of hazardous remediation waste before receiving a finally effective RAP.

How May my RAP be Modified, Revoked and Reissued, or Terminated?**§ 270.170 After my RAP is issued, how may it be modified, revoked and reissued, or terminated?**

In your RAP, the Director must specify, either directly or by reference, procedures for future modifications, revocations and reissuance, or terminations of your RAP. These procedures must provide adequate opportunities for public review and comment on any modification, revocation and reissuance, or termination that would significantly change your management of your remediation waste, or that otherwise merits public review and comment. If your RAP has been incorporated into a traditional RCRA permit, as allowed under § 270.85(c), then the RAP will be modified according to the applicable requirements in §§ 270.40 through 270.42, revoked and reissued according to the applicable requirements in §§ 270.41 and 270.43, or terminated according to the applicable requirements of § 270.43.

§ 270.175 For what reasons may the Director choose to modify my final RAP?

(a) The Director may modify your final RAP on his own initiative only if one or more of the following reasons listed in this section exist(s). If one or more of these reasons do not exist, then the Director will not modify your final RAP, except at your request. Reasons for modification are:

- (1) You made material and substantial alterations or additions to the activity that justify applying

different conditions;

(2) The Director finds new information that was not available at the time of RAP issuance and would have justified applying different RAP conditions at the time of issuance;

(3) The standards or regulations on which the RAP was based have changed because of new or amended statutes, standards or regulations, or by judicial decision after the RAP was issued;

(4) If your RAP includes any schedules of compliance, the Director may find reasons to modify your compliance schedule, such as an act of God, strike, flood, or materials shortage or other events over which you as the owner/operator have little or no control and for which there is no reasonably available remedy;

(5) You are not in compliance with conditions of your RAP;

(6) You failed in the application or during the RAP issuance process to disclose fully all relevant facts, or you misrepresented any relevant facts at the time;

(7) The Director has determined that the activity authorized by your RAP endangers human health or the environment and can only be remedied by modifying; or

(8) You have notified the Director (as required in the RAP under § 270.30(1)(3)) of a proposed transfer of a RAP.

(b) Notwithstanding any other provision in this section, when the Director reviews a RAP for a land disposal facility under Sec. 270.195, he may modify the permit as necessary to assure that the facility continues to comply with the currently applicable requirements in parts 124, 260 through 266 and 270 of this chapter.

(c) The Director will not reevaluate the suitability of the facility location at the time of RAP modification unless new information or standards indicate that a threat to human health or the environment exists that was unknown when the RAP was issued.

§ 270.180 For what reasons may the Director choose to revoke and reissue my final RAP?

(a) The Director may revoke and reissue your final RAP on his own initiative only if one or more reasons for revocation and reissuance exist(s). If one or more reasons do not exist, then the Director will not modify or revoke and reissue your final RAP, except at your request. Reasons for modification or revocation and reissuance are the same as the reasons listed for RAP modifications in Sec. 270.175(a)(5) through (8) if the Director determines that revocation and reissuance of your RAP is appropriate.

(b) The Director will not reevaluate the suitability of the facility location at the time of RAP revocation and reissuance, unless new information or standards indicate that a threat to

human health or the environment exists that was unknown when the RAP was issued.

§ 270.185 For what reasons may the Director choose to terminate my final RAP, or deny my renewal application?

The Director may terminate your final RAP on his own initiative, or deny your renewal application for the same reasons as those listed for RAP modifications in § 270.175(a)(5) through (7) if the Director determines that termination of your RAP or denial of your RAP renewal application is appropriate.

§ 270.190 May the decision to approve or deny a modification, revocation and reissuance, or termination of my RAP be administratively appealed?

(a) Any commenter on the modification, revocation and reissuance or termination, or any person who participated in any hearing(s) on these actions, may appeal the Director's decision to approve a modification, revocation and reissuance, or termination of your RAP, according to § 270.155. Any person who did not file comments or did not participate in any public hearing(s) on the modification, revocation and reissuance or termination, may petition for administrative review only of the changes from the draft to the final RAP decision.

(b) Any commenter on the modification, revocation and reissuance or termination, or any person who participated in any hearing(s) on these actions, may informally appeal the Director's decision to deny a request for modification, revocation and reissuance, or termination to the Arkansas Pollution Control and Ecology Commission. Any person who did not file comments, or did not participate in any public hearing(s) on the modification, revocation and reissuance or termination may petition for administrative review only of the changes from the draft to the final RAP decision.

(c) The process for informal appeals of RAPs is as follows:

(1) The person appealing the decision must send a letter to the Arkansas Pollution Control and Ecology Commission. The letter must briefly set forth the relevant facts.

(2) The Commission has 60 days after receiving the letter to act on it.

(3) If the Commission does not take action on the letter within 60 days after receiving it, the appeal shall be considered denied.

(d) This informal appeal is a prerequisite to seeking judicial review of these Department actions.

§ 270.195 When will my RAP expire?

RAPs must be issued for a fixed term, not to exceed 10 years, although they may be renewed upon approval by the Director in fixed increments of no more than ten years. In addition, the Director must review any RAP for hazardous waste land disposal five years after the date of issuance or reissuance and you or the Director must follow the requirements for modifying your RAP as necessary to assure that you continue to comply with currently applicable requirements in RCRA sections 3004 and 3005.

§ 270.200 How may I renew my RAP if it is expiring?

If you wish to renew your expiring RAP, you must follow the process for application for and issuance of RAPs in this subpart.

§ 270.205 What happens if I have applied correctly for a RAP renewal but have not received approval by the time my old RAP expires?

If you have submitted a timely and complete application for a RAP renewal, but the Director, through no fault of yours, has not issued a new RAP with an effective date on or before the expiration date of your previous RAP, your previous RAP conditions continue in force until the effective date of your new RAP or RAP denial.

Operating Under Your RAP

§ 270.210 What records must I maintain concerning my RAP?

You are required to keep records of:

(a) All data used to complete RAP applications and any supplemental information that you submit for a period of at least 3 years from the date the application is signed; and

(b) Any operating and/or other records the Director requires you to maintain as a condition of your RAP.

§ 270.215 How are time periods in the requirements in this subpart and my RAP computed?

(a) Any time period scheduled to begin on the occurrence of an act or event must begin on the day after the act or event. (For example, if your RAP specifies that you must close a staging pile within 180 days after the operating term for that staging pile expires, and the operating term expires on June 1, then June 2 counts as day one of your 180 days, and you would have to complete closure by November 28.)

(b) Any time period scheduled to begin before the occurrence of an act or event must be computed so that the

period ends on the day before the act or event. (For example, if you are transferring ownership or operational control of your site, and wish to transfer your RAP, the new owner or operator must submit a revised RAP application no later than 90 days before the scheduled change. Therefore, if you plan to change ownership on January 1, the new owner/operator must submit the revised RAP application no later than October 3, so that the 90th day would be December 31.)

(c) If the final day of any time period falls on a weekend or legal holiday, the time period must be extended to the next working day. (For example, if you wish to appeal the Director's decision to modify your RAP, then you must petition the Arkansas Pollution Control and Ecology Commission within 30 days after the Director has issued the final RAP decision. If the 30th day falls on Sunday, then you may submit your appeal by the Monday after. If the 30th day falls on July 4th, then you may submit your appeal by July 5th.)

(d) Whenever a party or interested person has the right to or is required to act within a prescribed period after the service of notice or other paper upon him by mail, 3 days must be added to the prescribed term. (For example, if you wish to appeal the Director's decision to modify your RAP, then you must petition the Arkansas Pollution Control and Ecology Commission within 30 days after the Director has issued the final RAP decision. However, if the Director notifies you of his decision by mail, then you may have 33 days to petition the Commission.)

§ 270.220 How may I transfer my RAP to a new owner or operator?

(a) If you wish to transfer your RAP to a new owner or operator, you must follow the requirements specified in your RAP for RAP modification to identify the new owner or operator, and incorporate any other necessary requirements. These modifications do not constitute "significant" modifications for purposes of § 270.170. The new owner/operator must submit a revised RAP application no later than 90 days before the scheduled change along with a written agreement containing a specific date for transfer of RAP responsibility between you and the new permittees.

(b) When a transfer of ownership or operational control occurs, you as the old owner or operator must comply with the applicable requirements in Section 264, subsection H (Financial Requirements), of this chapter until the new owner or operator has demonstrated that he is complying with the requirements in that subpart. The new owner or operator must demonstrate compliance with Section 264, subsection H, of this regulation within six months of the date of the change in ownership or operational control of the facility or remediation waste management site. When the new owner/operator demonstrates compliance with Section 264, subsection H, of this regulation to the Director, the Director will notify you that you no longer need to comply with Section 264, subsection H, of this regulation as of the date of demonstration.

§ 270.225 What must the State or EPA Region report about noncompliance with RAPs?

The State or EPA Region must report noncompliance with RAPs according to the provisions of § 270.5.

Obtaining a RAP for an Off-Site Location

§ 270.230 May I perform remediation waste management activities under a RAP at a location removed from the area where the remediation wastes originated?

(a) You may request a RAP for remediation waste management activities at a location removed from the area where the remediation wastes originated if you believe such a location would be more protective than the contaminated area or areas in close proximity.

(b) If the Director determines that an alternative location, removed from the area where the remediation waste originated, is more protective than managing remediation waste at the area of contamination or areas in close proximity, then the Director may approve a RAP for this alternative location.

(c) You must request the RAP, and the Director will approve or deny the RAP, according to the procedures and requirements in this subpart.

(d) A RAP for an alternative location must also meet the following requirements, which the Director must include in the RAP for such locations:

(1) The RAP for the alternative location must be issued to the person responsible for the cleanup from which the remediation wastes originated;

(2) The RAP is subject to the expanded public participation requirements in 40 CFR 124.31, 124.32, and 124.33;

(3) The RAP is subject to the public notice requirements in 40 CFR 124.10(c).

(4) The site permitted in the RAP may not be located within 61 meters or 200 feet of a fault which has had displacement in the Holocene time (you must demonstrate compliance with this standard through the requirements in § 270.14(b)(11)) (See definitions of terms in § 264.18(a) of this chapter);

Note to paragraph (d)(4): Sites located in political jurisdictions other than those listed in Appendix VI of 40 CFR Part 264, are assumed to be in compliance with this requirement.

(e) These alternative locations are remediation waste management sites, and retain the following benefits of remediation waste management sites:

(1) Exclusion from facility-wide corrective action under § 264.101 of this regulation; and

(2) Application of § 264.1(j) of this regulation in lieu of Section 264, subsections B, C, and D, of this regulation.

Subsection I—Integration with Maximum Achievable Control Technology (MACT) Standards

§ 270.235 Options for incinerators and cement and lightweight aggregate kilns to minimize emissions from startup, shutdown, and malfunction events.

(a) Facilities with existing permits.

(1) *Revisions to permit conditions after documenting compliance with MACT.* The owner or operator of a RCRA-permitted incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace may request that the Director address permit conditions that minimize emissions from startup, shutdown, and malfunction events under any of the following options when requesting removal of permit conditions that are no longer applicable according to §§ 264.340(b) and 266.100(b) of this Regulation:

(i) Retain relevant permit conditions. Under this option, the Director will:

(A) Retain permit conditions that address releases during startup, shutdown, and malfunction events, including releases from emergency safety vents, as these events are defined in the facility's startup, shutdown, and malfunction plan required under 40 CFR 63.1206(c); and

(B) Limit applicability of those permit conditions only to when the facility is operating under its startup, shutdown, and malfunction plan.

(ii) Revise relevant permit conditions.

(A) Under this option, the Director will:

(1) Identify a subset of relevant existing permit requirements, or develop alternative permit requirements, that ensure emissions of toxic compounds are minimized from startup, shutdown, and malfunction events, including releases from emergency safety vents, based on review of information including the source's startup, shutdown, and malfunction plan, design, and operating history.

(2) Retain or add these permit requirements to the permit to apply only when the facility is operating under its startup, shutdown, and malfunction plan.

(B) Changes that may significantly increase emissions.

(1) You must notify the Director in

writing of changes to the startup, shutdown, and malfunction plan or changes to the design of the source that may significantly increase emissions of toxic compounds from startup, shutdown, or malfunction events, including releases from emergency safety vents. You must notify the Director of such changes within five days of making such changes. You must identify in the notification recommended revisions to permit conditions necessary as a result of the changes to ensure that emissions of toxic compounds are minimized during these events.

(2) The Director may revise permit conditions as a result of these changes to ensure that emissions of toxic compounds are minimized during startup, shutdown, or malfunction events, including releases from emergency safety vents either:

(i) Upon permit renewal, or, if warranted;

(ii) By modifying the permit under §§ 270.41(a) or 270.42.

(iii) Remove permit conditions. Under this option:

(A) The owner or operator must document that the startup, shutdown, and malfunction plan required under 40 CFR 63.1206(c)(2) has been approved by the Director under 40 CFR 63.1206(c)(2)(ii)(B); and

(B) The Director will remove permit conditions that are no longer applicable according to §§ 264.340(b) and 266.100(b) of this regulation.

(2) *Addressing permit condition upon permit reissuance.* The owner or operator of an incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace that has conducted a comprehensive performance test and submitted to the Director a Notification of Compliance documenting compliance with the standards of 40 CFR Part 63, subpart EEE, may request in the application to reissue the permit for the combustion unit that the Director control emissions from startup, under any of the following options:

(i) RCRA option A.

(A) Under this option, the Director will:

(1) Include, in the permit, conditions that ensure compliance with §§ 264.345(a) and 264.345(c) or §§ 266.102(e)(1) and 266.102(e)(2)(iii) of this chapter to

minimize emissions of toxic compounds from startup, shutdown, and malfunction events, including releases from emergency safety vents; and

(2) Specify that these permit requirements apply only when the facility is operating under its startup, shutdown, and malfunction plan.; or

(ii) RCRA option B.

(A) Under this option, the Director will:

(1) Include, in the permit conditions, that ensure emissions of toxic compounds are minimized from startup, shutdown, and malfunction events, including releases from emergency safety vents, based on review of information including the source's startup, shutdown, and malfunction plan, design, and operating history; and

(2) Specify that these permit requirements apply only when the facility is operating under its startup, shutdown, and malfunction plan.

(B) Changes that may significantly increase emissions.

(1) You must notify the Director in writing of changes to the startup, shutdown, and malfunction plan or changes to the design of the source that may significantly increase emissions of toxic compounds from startup, shutdown, or malfunction events, including releases from emergency safety vents. You must notify the Director of such changes within five days of making such changes. You must identify in the notification recommended revisions to permit conditions necessary as a result of the changes to ensure that emissions of toxic compounds are minimized during these events.

(2) The Director may revise permit conditions as a result of these changes to ensure that emissions of toxic compounds are minimized during startup, shutdown, or malfunction events, including releases from emergency safety vents either:

(i) Upon permit renewal, or, if warranted;

(ii) By modifying the permit under §§ 270.41(a) or 270.42; or

(iii) CAA option. Under this

option:

(A) The owner or operator must document that the startup, shutdown, and malfunction plan required under 40 CFR 63.1206(c)(2) has been approved by the Director under 40 CFR 63.1206(c)(2)(ii)(B); and

(B) The Director will omit from the permit conditions that are not applicable under §§ 264.340(b) and 266.100(b) of this regulation.

(b) Interim status facilities.

(1) *Interim status operations.* In compliance with §§ 265.340 and 266.100(b) of this Regulation, the owner or operator of an incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace that is operating under the interim status standards of Section 265 or 266 of this Regulation may control emissions of toxic compounds during startup, shutdown, and malfunction events under either of the following options after conducting a comprehensive performance test and submitting to the Director a Notification of Compliance documenting compliance with the standards of 40 CFR Part 63, subpart EEE.

(i) RCRA option. Under this option, the owner or operator continues to comply with the interim status emission standards and operating requirements of Sections 265 or 266 of this regulation relevant to control of emissions from startup, shutdown, and malfunction events. Those standards and requirements apply only during startup, shutdown, and malfunction events; or

(ii) CAA option. Under this option, the owner or operator is exempt from the interim status standards of Sections 265 or 266 of this regulation relevant to control of emissions of toxic compounds during startup, shutdown, and malfunction events upon submission of written notification and documentation to the Director that the startup, shutdown, and malfunction plan required under 40 CFR 63.1206(c)(2) has been approved by the Director under 40 CFR 63.1206(c)(2)(ii)(B).

(2) *Operations under a subsequent RCRA permit.* When an owner or operator of an incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace that is operating under the interim status standards of Sections 265 or 266 of this Regulation submits a RCRA permit application, the owner or operator may request that the Director control emissions from startup, shutdown, and malfunction events under any of the options provided by paragraphs (a)(2)(i), (a)(2)(ii), or (a)(2)(iii) of this subsection.

(c) New units. Hazardous waste incinerator, cement kiln, lightweight aggregate kiln, solid fuel boiler, liquid fuel boiler, or hydrochloric acid production furnace units that become subject to RCRA permit requirements after October 12, 2005 must control emissions of toxic compounds during startup, shutdown, and malfunction events under either of the following options:

- (1) Comply with the requirements specified in 40 CFR Part 63.1206(c)(2) ; or
- (2) Request to include in the RCRA permit, conditions that ensure emissions of toxic compounds are minimized from startup, shutdown, and malfunction events, including releases from emergency safety vents, based on review of information including the source's startup, shutdown, and malfunction plan and design. The director will specify that these permit conditions apply only when the facility is operating under its startup, shutdown, and malfunction plan.

Subsection J—RCRA Standardized Permits for Storage and Treatment Units

General Information About Standardized Permits

§ 270.250 What is a RCRA standardized permit?

A RCRA standardized permit (RCRA) is a special type of permit that authorizes you to manage hazardous waste. It is issued under 40 CFR part 124, subsection G, Regulation No. 8, and Subsection J of this Section.

§ 270.255 Who is eligible for a standardized permit?

- (a) You may be eligible for a standardized permit if:
 - (1) You generate hazardous waste and then store or non-thermally treat the hazardous waste on-site in containers, tanks, or containment buildings; or
 - (2) You receive hazardous waste generated off-site by a generator under the same ownership as the receiving facility, and then store or non-thermally treat the hazardous waste in containers, tanks, or containment buildings.
 - (3) We will inform you of your eligibility when we make a decision on your permit application.
- (b) [Reserved]

§ 270.260 What requirements of Section 270 apply to a standardized permit?

The following subsections of this Section 270 apply to a standardized permit:

- (a) Subsection A—General Information: All sections.
- (b) Subsection B—Permit Application: §§ 270.10, 270.11, 270.12, 270.13 and 270.29.
- (c) Subsection C—Permit Conditions: All sections.
- (d) Subsection D—Changes to Permit: §§ 270.40, 270.41, and 270.43.
- (e) Subsection E—Expiration and Continuation of Permits: All sections.
- (f) Subsection F—Special Forms of Permits: § 270.67.
- (g) Subsection G—Interim Status: All sections.
- (h) Subsection H—Remedial Action Plans: Does not apply.
- (i) Subsection J—Standardized Permits: All sections.

Applying for a Standardized Permit

§ 270.270 How do I apply for a standardized permit?

You apply for a standardized permit by following the procedures in 40 CFR Part 124, subsection G, Regulation No. 8, and this Subsection.

§ 270.275 What information must I submit to the permitting agency to support my standardized permit application?

The information in paragraphs (a) through (j) of this section will be the basis of your standardized permit application. You must submit it to the Director when you submit your Notice of Intent under 40 CFR 124.202(b) requesting coverage under a RCRA standardized permit:

- (a) The Part A information described in § 270.13.
- (b) A meeting summary and other materials required by 40 CFR 124.31.
- (c) Documentation of compliance with the location standards of Section 267.18 and § 270.14(b)(11) of this Regulation.
- (d) Information that allows the Director to carry out our obligations under other Federal laws required in § 270.3.
- (e) Solid waste management unit information required by § 270.14(d).
- (f) A certification meeting the requirements of § 270.280, and an audit of the facility's compliance status with Section 267 as required by § 270.280.
- (g) A closure plan prepared in accordance with Section 267, Subsection G.
- (h) The most recent closure cost estimate for your facility prepared under § 267.142 and a copy of the documentation required to demonstrate financial assurance under § 267.143. For a new facility, you may gather the required documentation 60 days before the initial receipt of hazardous wastes.
- (i) If you manage wastes generated offsite, the waste analysis plan.

(j) If you manage waste generated from off-site, documentation showing that the waste generator and the off-site facility are under the same ownership.

§ 270.280 What are the certification requirements?

You must submit a signed certification based on your audit of your facility's compliance with Section 267.

(a) Your certification must read: I certify under penalty of law that:

(1) I have personally examined and am familiar with the report containing the results of an audit conducted of my facility's compliance status with APC&EC Regulation No. 23, Section 267, which supports this certification. Based on my inquiry of those individuals immediately responsible for conducting the audit and preparing the report, I believe that my (include paragraph (a)(1)(i) and (ii) this section, whichever applies):

(i) My existing facility complies with all applicable requirements of APC&EC Regulation No. 23, Section 267 and will continue to comply until the expiration of the permit; or

(ii) My facility has been designed, and will be constructed and operated to comply with all applicable requirements of Regulation No. 23, Section 267, and will continue to comply until expiration of the permit.

(2) I will make all information that I am required to maintain at my facility by §§ 270.290 through 277.315 readily available for review by the permitting agency and the public; and,

(3) I will continue to make all information required by §§ 270.290 through 277.315 available until the permit expires. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violation.

(b) You must sign this certification following the requirements of § 270.11(a)(1) through (3).

(c) This certification must be based upon an audit that you conduct of your facility's compliance status with Section 267 of this Regulation. A written audit report, signed and certified as accurate by the auditor, must be submitted to the Director with the 40 CFR 124.202(b) Notice of Intent.

Information That Must Be Kept at Your Facility

§ 270.290 What general types of information must I keep at my facility?

You must keep the following information at your facility:

(a) A general description of the facility.

(b) Chemical and physical analyses of the hazardous waste and hazardous debris handled at the facility. At a minimum, these analyses must contain all the information you must know to treat or store the wastes properly under the requirements of Section 267 of this Regulation.

(c) A copy of the waste analysis plan required by § 267.13(b).

(d) A description of the security procedures and equipment required by § 267.14.

(e) A copy of the general inspection schedule required by § 267.15(b). You must include in the inspection schedule applicable requirements of §§ 267.174, 267.193, 267.195, 264.1033, 264.1052, 264.1053, 264.1058, and 264.1088.

(f) A justification of any modification of the preparedness and prevention requirements of Section 267, Subsection C (§§ 267.30 to 267.35).

(g) A copy of the contingency plan required by Section 267, subsection D.

(h) A description of procedures, structures, or equipment used at the facility to:

(1) Prevent hazards in unloading operations (for example, use ramps, special forklifts),

(2) Prevent runoff from hazardous waste handling areas to other areas of the facility or environment, or to prevent flooding (for example, with berms, dikes, trenches),

(3) Prevent contamination of water supplies,

(4) Mitigate effects of equipment failure and power outages,

(5) Prevent undue exposure of personnel to hazardous waste (for example, requiring protective clothing), and

(6) Prevent releases to atmosphere,

(i) A description of precautions to prevent accidental ignition or reaction of ignitable, reactive, or incompatible wastes as required by § 267.17.

(j) Traffic pattern, estimated volume (number, types of vehicles) and control (for example, show turns across traffic lanes, and stacking lanes; describe access road surfacing and load bearing capacity; show traffic control signals).

(k) [Reserved]

(l) An outline of both the introductory and continuing training programs you will use to prepare employees to operate or maintain your facility safely as required by § 267.16. A brief description of how training will be designed to meet actual job tasks under § 267.16(a)(3) requirements.

(m) A copy of the closure plan required by § 267.112. Include, where applicable, as part of the plans, specific requirements in §§ 267.176, 267.201, and 267.1108.

(n) [Reserved]

(o) The most recent closure cost estimate for your facility prepared under § 267.142 and a copy of the documentation required to demonstrate financial assurance under § 267.143. For a new facility, you may gather the required documentation 60 days before the initial receipt of hazardous wastes.

(p) [Reserved]

(q) Where applicable, a copy of the insurance policy or other documentation that complies with the liability requirements of § 267.147. For a new facility, documentation showing the amount of insurance meeting the specification of § 267.147(a) that you plan to have in effect before initial receipt of hazardous waste for treatment or storage.

(r) Where appropriate, proof of coverage by a State financial mechanism, as required by §§ 267.149 or 267.150.

(s) A topographic map showing a distance of 1,000 feet around your facility at a scale of 2.5 centimeters (1 inch) equal to not more than 61.0 meters (200 feet). The map must show elevation contours. The contour interval must show the pattern of surface water flow in the vicinity of and from each operational unit of the facility. For example, contours with an interval of 1.5 meters (5 feet), if relief is greater than 6.1 meters (20 feet), or an interval of 0.6 meters (2 feet), if relief is less than 6.1 meters (20 feet). If your facility is in a mountainous area, you should use large contour intervals to adequately show topographic profiles of facilities. The map must clearly show the following:

- (1) Map scale and date.
- (2) 100-year flood plain area.
- (3) Surface waters including intermittent streams.
- (4) Surrounding land uses (residential, commercial, agricultural, recreational).
- (5) A wind rose (i.e., prevailing windspeed and direction).
- (6) Orientation of the map (north arrow).
- (7) Legal boundaries of your facility site.
- (8) Access control (fences, gates).
- (9) Injection and withdrawal wells both on-site and off-site.
- (10) Buildings; treatment, storage, or disposal operations; or other structure (recreation areas, run-off control systems, access and internal roads, storm, sanitary, and process sewerage systems, loading and unloading areas, fire control facilities, etc.)
- (11) Barriers for drainage or flood control.
- (12) Location of operational units within your facility, where hazardous waste is (or will be) treated or stored. (Include equipment cleanup areas.)

§ 270.300 What container information must I keep at my facility?

If you store or treat hazardous waste in containers, you must keep the following information at your facility:

- (a) A description of the containment system to demonstrate compliance with the container storage area provisions of § 267.173. This description must show the following:
 - (1) Basic design parameters, dimensions, and materials of construction.
 - (2) How the design promotes drainage or how containers are kept from contact with standing liq-

uids in the containment system.

(3) Capacity of the containment system relative to the number and volume of containers to be stored.

(4) Provisions for preventing or managing runoff.

(5) How accumulated liquids can be analyzed and removed to prevent overflow.

(b) For storage areas that store containers holding wastes that do not contain free liquids, a demonstration of compliance with § 267.173(c), including:

(1) Test procedures and results or other documentation or information to show that the wastes do not contain free liquids.

(2) A description of how the storage area is designed or operated to drain and remove liquids or how containers are kept from contact with standing liquids.

(c) Sketches, drawings, or data demonstrating compliance with § 267.174 (location of buffer zone (15m or 50ft) and containers holding ignitable or reactive wastes) and § 267.175(c) (location of incompatible wastes in relation to each other), where applicable.

(d) Where incompatible wastes are stored or otherwise managed in containers, a description of the procedures used to ensure compliance with §§ 267.175(a) and (b), and 267.17(b) and (c).

(e) Information on air emission control equipment as required by § 270.315.

§ 270.305 What tank information must I keep at my facility?

If you use tanks to store or treat hazardous waste, you must keep the following information at your facility:

- (a) A written assessment that is reviewed and certified by an independent, qualified, Arkansas-registered professional engineer on the structural integrity and suitability for handling hazardous waste of each tank system, as required under §§ 267.191 and 267.192.
- (b) Dimensions and capacity of each tank.
- (c) Description of feed systems, safety cutoff, bypass systems, and pressure controls (e.g., vents).
- (d) A diagram of piping, instrumentation, and process flow for each tank system.
- (e) A description of materials and equipment used to provide external corrosion protection, as required under § 267.191.
- (f) For new tank systems, a detailed description of how the tank system(s) will be installed in compliance with §§ 267.192 and 267.194.
- (g) Detailed plans and description of how the secondary containment system for each tank system is or will be designed, constructed, and operated to meet the requirements of §§ 267.195 and 267.196.
- (h) [Reserved].
- (i) Description of controls and practices to prevent spills

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and overflows, as required under § 267.198.

(j) For tank systems in which ignitable, reactive, or incompatible wastes are to be stored or treated, a description of how operating procedures and tank system and facility design will achieve compliance with the requirements of §§ 267.202 and 267.203.

(k) Information on air emission control equipment as required by § 270.315.

§ 270.310 What equipment information must I keep at my facility?

If your facility has equipment to which Section 264, subsection BB of this Regulation applies, you must keep the following information at your facility:

(a) For each piece of equipment to which Section 264 subsection BB applies:

- (1) Equipment identification number and hazardous waste management unit identification.
- (2) Approximate locations within the facility (e.g., identify the hazardous waste management unit on a facility plot plan).
- (3) Type of equipment (e.g., a pump or a pipeline valve).
- (4) Percent by weight of total organics in the hazardous waste stream at the equipment.
- (5) Hazardous waste state at the equipment (e.g., gas/vapor or liquid).
- (6) Method of compliance with the standard (e.g., monthly leak detection and repair, or equipped with dual mechanical seals).

(b) For facilities that cannot install a closed-vent system and control device to comply with Section 264, subsection BB on the effective date that the facility becomes subject to the subsection BB provisions, an implementation schedule as specified in § 264.1033(a)(2) of this Regulation.

(c) Documentation that demonstrates compliance with the equipment standards in §§ 264.1052 and 264.1059. This documentation must contain the records required under § 264.1064.

(d) Documentation to demonstrate compliance with § 264.1060 must include the following information:

- (1) A list of all information references and sources used in preparing the documentation.
- (2) Records, including the dates, of each compliance test required by § 264.1033(j).
- (3) A design analysis, specifications, drawings, schematics, and piping and instrumentation diagrams based on the appropriate sections of “Course 415: Control of Gaseous Emissions” (incorporated by reference as specified in § 260.11) or other engineering texts acceptable to the Director that present basic control device design information. The design analysis must address the vent stream characteristics and control device operation param-

eters as specified in § 264.1035(b)(4)(iii).

(4) A statement you signed and dated certifying that the operating parameters used in the design analysis reasonably represent the conditions that exist when the hazardous waste management unit is operating at the highest load or capacity level reasonable expected to occur.

(5) A statement you signed and dated certifying that the control device is designed to operate at an efficiency of 95 weight percent or greater.

§ 270.315 What air emissions control information must I keep at my facility?

If you have air emission control equipment subject to Section 264, subsection CC of this Regulation, you must keep the following information at your facility:

(a) Documentation for each floating roof cover installed on a tank subject to §§ 264.1084(d)(1) or (d)(2) that includes information you prepared or the cover manufacturer/vendor provided describing the cover design, and your certification that the cover meets applicable design specifications listed in §§ 264.1084(e)(1) or (f)(1).

(b) Identification of each container area subject to the requirements of Section 264, subsection CC of this Regulation, and your certification that the requirements of this subsection are met.

(c) Documentation for each enclosure used to control air pollutant emissions from tanks or containers under requirements of § 264.1084(d)(5) or 264.1086(e)(1)(ii). You must include records for the most recent set of calculations and measurements you performed to verify that the enclosure meets the criteria of a permanent total enclosure as specified in “Procedure T—Criteria for and Verification of a Permanent or Temporary Total Enclosure” under 40 CFR 52.741, appendix B.

(d) [Reserved]

(e) Documentation for each closed vent system and control device installed under requirements of § 264.1087 that includes design and performance information as specified in § 270.24 (c) and (d).

(f) An emission monitoring plan for both Method 21 in 40 CFR Part 60, appendix A and control device monitoring methods. This plan must include the following information: monitoring point(s), Monitoring methods for control devices, monitoring frequency, procedures for documenting exceedences, and procedures for mitigating noncompliances.

Modifying a Standardized Permit

§ 270.320 How do I modify my RCRA standardized permit?

You can modify your RCRA standardized permit by following the procedures found in 40 CFR 124.211 through 124.214.

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Section 273 — STANDARDS FOR UNIVERSAL WASTE MANAGEMENT

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Subsection G -- Petitions to Include Other Wastes under § 273

- 273.80 General.

273.81 Factors for Petitions to Include Other Wastes under § 273

Subsection A – General

§ 273.1 Scope.

(a) This part establishes requirements for managing the following:

- (1) Batteries as described in § 273.2;
- (2) Pesticides as described in § 273.3;
- (3) Mercury-containing devices as described in § 273.4;
- (4) Lamps as described in § 273.5: and
- (5) *Consumer electronic items as described in § 273.6.*

(b) This section provides an alternative set of management standards in lieu of regulation under Sections 260 through 270.

§ 273.2 Applicability – Batteries.

(a) Batteries covered under § 273

(1) The requirements of this section apply to persons managing batteries, as described in § 273.9 of this section, except those listed in paragraph (b) of this section.

(2) Spent lead-acid batteries which are not managed under § 266, Subsection G, are subject to management under this section.

(b) Batteries not covered under § 273. The requirements of this section do not apply to persons managing the following batteries:

(1) Spent lead-acid batteries that are managed under § 266, Subsection G.

(2) Batteries, as described in § 273.9 of this section, that are not yet wastes under § 261 of this Regulation, including those that do not meet the criteria for waste generation in paragraph (c) of this section.

(3) Batteries, as described in § 273.9 of this part, that are not hazardous waste. A battery is a hazardous waste if it exhibits one or more of the characteristics identified in § 261, Subsection C.

(c) Generation of waste batteries

(1) A used battery becomes a waste on the date it is discarded (e.g., when sent for reclamation).

(2) An unused battery becomes a waste on the date the handler decides to discard it.

§ 273.3 Applicability – Pesticides.

(a) Pesticides covered under § 273. The requirements of this section apply to persons managing pesticides, as described in § 273.9 of this section, meeting the following conditions, except those listed in paragraph (b) of this section.

- (1) Recalled pesticides that are:
 - (i) Stocks of a suspended and canceled pesticide that are part of a voluntary or mandatory recall under FIFRA Section 19(b), including, but not limited to those owned by the registrant responsible for conducting the recall; or
 - (ii) Stocks of a suspended or canceled pesticide, or a pesticide that is not in compliance with FIFRA, that are part of a voluntary recall by the registrant.

(2) Stocks of other unused pesticide products that are collected and managed as part of a waste pesticide collection program.

(b) Pesticides not covered under § 273. The requirements of this section do not apply to persons managing the following pesticides:

(1) Recalled pesticides described in paragraph (a)(1) of this section, and unused pesticide products described in paragraph (a)(2) of this section, that are managed by farmers in compliance with § 262.70. (§ 262.70 addresses pesticides disposed of on the farmer's own farm in a manner consistent with the disposal instructions on the pesticide label, providing the container is triple rinsed in accordance with § 261.7(b)(3));

(2) Pesticides not meeting the conditions set forth in paragraph (a) of this section. These pesticides must be managed in compliance with the hazardous waste regulations in §§ 260 through 270;

(3) Pesticides that are not wastes under § 261 of this Regulation, including those that do not meet the criteria for waste generation in paragraph (c) of this section or those that are not wastes as described in paragraph (d) of this section; and

(4) Pesticides that are not hazardous waste. A pesticide is a hazardous waste if it is listed in § 261, Subsection D or if it exhibits one or more of the characteristics identified in § 261, Subsection C.

(c) When a pesticide becomes a waste

(1) A recalled pesticide described in paragraph (a)(1) of this section becomes a waste on the first date on which both of the following conditions apply:

- (i) The generator of the recalled pesticide agrees to participate in the recall; and
- (ii) The person conducting the recall decides to discard (e.g., burn the pesticide for energy recovery).

(2) An unused pesticide product described in paragraph (a)(2) of this section becomes a waste on the date the generator decides to discard it.

(d) Pesticides that are not wastes The following pesticides are not wastes:

(1) Recalled pesticides described in paragraph (a)(1) of this section, provided that the person conducting the recall:

(i) has not made a decision to discard (e.g., burn for energy recovery) the pesticide. Until such a decision is made, the pesticide does not meet the definition of "solid waste" under § 261.2; thus the pesticide is not a hazardous waste and is not subject to hazardous waste requirements, including § 273 of this Regulation. This pesticide remains subject to the requirements of FIFRA; or

(ii) has made a decision to use a management option that, under § 261.2, does not cause the pesticide to be a solid waste (i.e., the selected option is use (other than use constituting disposal) or reuse (other than burning for energy recovery), or reclamation). Such a pesticide is not a solid waste and therefore is not a hazardous waste, and is not subject to the hazardous waste requirements including § 273 of this Regulation. This pesticide, including a recalled pesticide that is exported to a foreign destination for use or reuse, remains subject to the requirements of FIFRA.

(2) Unused pesticide products described in paragraph (a)(2) of this section, if the generator of the unused pesticide product has not decided to discard (e.g., burn for energy recovery) them. These pesticides remain subject to the requirements of FIFRA.

§ 273.4 Applicability – Mercury-Containing Devices.

(a) Mercury-containing devices covered under § 273. The requirements of this section apply to persons managing mercury-containing devices, as described in § 273.9 of this Section, except those listed in paragraph (b) of this section.

(b) Mercury-containing devices not covered under § 273. The requirements of this section do not apply to persons managing the following mercury-containing devices:

(1) Mercury-containing devices that are not yet wastes under § 261 of this Regulation. Paragraph (c) of this section describes when mercury-containing devices become wastes.

(2) Mercury-containing devices that are not hazardous waste. A mercury-containing device is a hazardous waste if it exhibits one or more of the characteristics identified in § 261, Subsection C, or is listed in § 261, subsection D of this regulation; and

(3) Equipment and devices from which the mercury-containing components have been removed.

(c) Generation of waste mercury-containing devices.

(1) A used mercury-containing device becomes a waste on the date it is discarded.

(2) An unused mercury-containing device

becomes a waste on the date the handler decides to discard it.

§ 273.5 Applicability – Lamps.

(a) Lamps covered under this Section 273. The requirements of this section apply to persons managing lamps as described in § 273.9, except those listed in paragraph (b) of this section.

(b) Lamps not covered under this Section 273. The requirements of this section do not apply to persons managing the following lamps:

(1) Lamps that are not yet wastes under section 261 of this regulation as provided in paragraph (c) of this section.

(2) Lamps that are not hazardous waste. A lamp is a hazardous waste if it exhibits one or more of the characteristics identified in section 261, subsection C of this regulation.

(3) *Broken lamps and the debris resulting from broken lamps. These wastes are subject to a waste determination pursuant to § 262.11, and if determined to be a hazardous waste, are subject to the requirements of Sections 260-266, and 268 of this regulation.*

(c) Generation of waste lamps.

(1) A used lamp becomes a waste on the date it is discarded.

(2) An unused lamp becomes a waste on the date the handler decides to discard it.

§ 273.6 Applicability – Consumer electronic items.

(a) *Consumer electronic items covered under this Section 273. The requirements of this section apply to persons managing consumer electronic items as described in § 273.9, except those listed in paragraph (b) of this section.*

(b) *Consumer electronic items not covered under this Section 273. The requirements of this section do not apply to persons managing the following consumer electronic items:*

(1) *Consumer electronic items that are not yet wastes under section 261 of this regulation as provided in paragraph (c) of this section.*

(2) *Consumer electronic items that are not hazardous waste. A consumer electronic item is a hazardous waste if it exhibits one or more of the characteristics identified in section 261, subsection C of this regulation.*

(c) *Generation of consumer electronic items.*

(1) *A used consumer electronic item becomes a waste on the date it is discarded.*

(2) *An unused consumer electronic item becomes a waste on the date the handler decides to discard it.*

§ 273.7 [Reserved]

§ 273.8 Applicability – household and conditionally exempt small quantity generator waste.

(a) Persons managing the wastes listed below may, at their option, manage them under the requirements of this section:

(1) Household wastes that are exempt under § 261.4(b)(1) of this regulation and are also of the same type as the universal wastes defined at § 273.9; and/or

(2) Conditionally exempt small quantity generator wastes that are exempt under § 261.5 of this regulation and are also of the same type as the universal wastes defined at § 273.9.

(b) Persons who commingle the wastes described in paragraphs (a)(1) and (a)(2) of this section together with universal waste regulated under this section must manage the commingled waste under the requirements of this section.

§ 273.9 Definitions.

“Ampule” means an airtight vial made of glass, plastic, metal, or any combination of these materials.

“Battery” means a device consisting of one or more electrically connected electrochemical cells which is designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode, cathode, and an electrolyte, plus such connections (electrical and mechanical) as may be needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed.

“Cathode ray tube” or “CRT” means a vacuum tube, composed primarily of glass, which is the video display component of a television or computer monitor. An intact CRT means a CRT remaining inside the monitor whose vacuum has not been released. A broken CRT means glass removed from the monitor after the vacuum has been released.

“Consumer electronic item” means an electronic item or other electronic waste containing an intact or broken cathode ray tube, (e.g., television, computer monitor, or other cathode ray tube monitor or display device), personal computer or computer component, audio and/or stereo player, videocassette recorder/player, digital videodisk (DVD) recorder/player, video camera, telephone, facsimile or copying machine, cellular telephone, wireless paging device, or video game console.

“Destination facility” means a facility that treats, disposes of, or recycles a particular category of universal waste, except those management activities described in subparagraphs (a) and (c) of sections 273.13 and 273.33. A facility at which a particular category of universal waste is only accumulated, is not a destination facility for purposes of

managing that category of universal waste.

“FIFRA” means the Federal Insecticide, Fungicide, and Rodenticide Act (7 U.S.C. 136 - 136y).

“Generator” means any person, by site, whose act or process produces hazardous waste identified or listed in § 261 of this Regulation or whose act first causes a hazardous waste to become subject to regulation.

“Lamp”, also referred to as “universal waste lamp” is defined as the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infra-red regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.

“Large Quantity Handler of Universal Waste” means a universal waste handler (as defined in this section) who accumulates 5,000 kilograms or more total of universal waste (calculated collectively) at any time. This designation as a large quantity handler of universal waste is retained through the end of the calendar year in which 5,000 kilograms or more total of universal waste is accumulated.

“Mercury-containing device” means a device or a part of a device (including thermostats, but excluding batteries and lamps) which contains elemental mercury integral to its function.

“On-site” means the same or geographically contiguous property which may be divided by public or private right-of-way, provided that the entrance and exit between the properties is at a cross-roads intersection, and access is by crossing as opposed to going along the right of way. Non-contiguous properties owned by the same person but connected by a right-of-way which he controls and to which the public does not have access, are also considered on-site property.

“Pesticide” means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant, other than any article that:

(a) is a new animal drug under FFDCa section 201(w), or

(b) is an animal drug that has been determined by regulation of the Secretary of Health and Human Services not to be a new animal drug, or

(c) is an animal feed under FFDCa section 201(x) that bears or contains any substances described by paragraph (a) or (b) of this section.

“Small Quantity Handler of Universal Waste” means a universal waste handler (as defined in this section) who does not accumulate more than 5,000 kilograms total of universal waste (calculated collectively) at any time.

“Thermostat” means a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element, and mercury-containing ampules that have been removed from these temperature control devices in compliance with the requirements of § 273.13(c)(2) or § 273.33(c)(2).

“Universal Waste” means any of the following hazardous

wastes that are subject to the universal waste requirements of § 273:

- (a) Batteries as described in § 273.2;
- (b) Pesticides as described in § 273.3;
- (c) Mercury-containing devices as described in § 273.4;
- (d) Lamps as described in § 273.5;
- (5) *Consumer electronic items as described in §*

273.6.

“Universal Waste Handler”:

- (a) Means:
 - (1) A generator (as defined in this section) of universal waste; or
 - (2) The owner or operator of a facility, including all contiguous property, that receives universal waste from other universal waste handlers, accumulates universal waste, and sends universal waste to another universal waste handler, to a destination facility, or to a foreign destination.
- (b) Does not mean:
 - (1) A person who treats (except under the provisions of § 273.13(a) or (c), or § 273.33(a) or (c)), disposes of, or recycles universal waste; or
 - (2) A person engaged in the off-site transportation of universal waste by air, rail, highway, or water, including a universal waste transfer facility.

“Universal Waste Transfer Facility” means any transportation-related facility including loading docks, parking areas, storage areas and other similar areas where shipments of universal waste are held during the normal course of transportation for ten days or less.

“Universal Waste Transporter” means a person engaged in the off-site transportation of universal waste by air, rail, highway, or water.

Subsection B – Standards for Small Quantity Handlers of Universal Waste

§ 273.10 Applicability.

This Subsection applies to small quantity handlers of universal waste (as defined in § 273.9).

§ 273.11 Prohibitions.

A small quantity handler of universal waste is:

- (a) Prohibited from disposing of universal waste; and
- (b) Prohibited from diluting or treating universal waste, except by responding to releases as provided in § 273.17; or by managing specific wastes as provided in § 273.13.

§ 273.12 Notification.

A small quantity handler of universal waste is not required to notify the Department of universal waste handling activities.

§ 273.13 Waste management.

(a) Universal waste batteries: A small quantity handler of universal waste must manage universal waste batteries in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A small quantity handler of universal waste must contain any universal waste battery that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a container. The container must be closed, structurally sound, compatible with the contents of the battery, and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(2) A small quantity handler of universal waste may conduct the following activities as long as the casing of each individual battery cell is not breached and remains intact and closed (except that cells may be opened to remove electrolyte but must be immediately closed after removal):

- (i) sorting batteries by type;
- (ii) mixing battery types in one container;
- (iii) discharging batteries so as to remove the electric charge;
- (iv) regenerating used batteries;
- (v) disassembling batteries or battery packs into individual batteries or cells;
- (vi) removing batteries from consumer products; or
- (vii) removing electrolyte from batteries.

(3) A small quantity handler of universal waste who removes electrolyte from batteries, or who generates other solid waste (e.g., battery pack materials, discarded consumer products) as a result of the activities listed above, must determine whether the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste identified in § 261, Subsection C.

(i) If the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste, it is subject to all applicable requirements of Sections 260 through 270. The handler is considered the generator of the hazardous electrolyte and/or other waste and is subject to § 262.

(ii) If the electrolyte or other solid waste

is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

(b) Universal waste pesticides. A small quantity handler of universal waste must manage universal waste pesticides in a way that prevents releases of any universal waste or component of a universal waste to the environment. The universal waste pesticides must be contained in one or more of the following:

(1) A container that remains closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions; or

(2) A container that does not meet the requirements of paragraph (1), provided that the unacceptable container is overpacked in a container that does meet the requirements of paragraph (1); or

(3) A tank that meets the requirements of § 265 Subsection J, except for §§ 265.197(c), 265.200, and 265.201; or

(4) A transport vehicle or vessel that is closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(c) Universal waste mercury-containing devices: A small quantity handler of universal waste must manage universal waste mercury-containing devices in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A small quantity handler of universal waste must place in a container any universal waste mercury-containing device with non-contained elemental mercury or that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. The container must be closed, structurally sound, compatible with the contents of the device, must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions, and must be reasonably designed to prevent the escape of mercury into the environment by volatilization or any other means.

(2) A small quantity handler of universal waste may remove mercury-containing ampules from universal waste thermostats or other universal waste mercury-containing devices provided the handler:

(i) Removes the ampules in a manner designed to prevent breakage of the ampules;

(ii) Removes ampules only over or in a containment device (e.g., tray or pan sufficient to collect and contain any mercury released from an ampule in case of breakage);

(iii) Ensures that a mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks from broken ampules, from that containment device

to a container that meets the requirements of § 262.34;

(iv) Immediately transfers any mercury resulting from spills or leaks from broken ampules from the containment device to a container that meets the requirements of § 262.34;

(v) Ensures that the area in which ampules are removed is well ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;

(vi) Ensures that employees removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures, including transfer of mercury from containment devices to appropriate containers;

(vii) Stores removed ampules in closed, non-leaking containers that are in good condition;

(viii) Packs removed ampules in the container with packing materials adequate to prevent breakage during storage, handling, and transportation; and

(3) A small quantity handler of universal waste mercury-containing devices that do not contain an ampule may remove the original housing holding the mercury from universal waste mercury-containing devices provided the handler

(i) Immediately seals the original housing holding the mercury with an airtight seal; and

(ii) Follows all requirements for removing ampules and managing removed ampules under paragraph (2) of this subsection; and

(4)(i) A small quantity handler of universal waste who removes mercury-containing ampules from mercury-containing devices or seals mercury from mercury-containing devices in its original housing must determine whether the following exhibit a characteristic of hazardous waste identified in § 261, Subsection C:

(A) Mercury or clean-up residues resulting from spills or leaks; and/or

(B) Other solid waste generated as a result of the removal of mercury-containing ampules or housings (e.g., the remaining mercury-containing device).

(ii) If the mercury, residues, and/or other solid waste exhibit a characteristic of hazardous waste, it must be managed in compliance with all applicable requirements of Sections 260 through 270. The handler is considered the generator of the mercury, residues, and/or other waste and must manage it is subject to § 262.

(iii) If the mercury, residues, and/or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or

local solid waste regulations.

(d) Lamps. A small quantity handler of universal waste must manage lamps in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A small quantity handler of universal waste must contain any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers and packages must remain closed and must lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.

(2) A small quantity handler of universal waste must immediately clean up and place in a container any lamp that is broken and must place in a container any lamp that shows evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment. Containers must be closed, structurally sound, compatible with the contents of the lamps and must lack evidence of leakage, spillage or damage that could cause leakage or releases of mercury or other hazardous constituents to the environment under reasonably foreseeable conditions.

(e) *Consumer electronic items.* A small quantity handler of universal waste must manage waste consumer electronic items in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A small quantity handler of universal waste must contain any waste consumer electronic item in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the items. Such containers and packages must remain closed and must lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.

(2) A small quantity handler of universal waste must immediately clean up and place in a container any CRT that is broken and must place in a container any CRT that shows evidence of breakage, leakage, or damage that could cause the release of lead or other hazardous constituents to the environment. Containers must be closed, structurally sound, compatible with the contents of the items and must lack evidence of leakage, spillage or damage that could cause leakage or releases of lead or other hazardous constituents to the environment under reasonably foreseeable conditions.

(3) A small quantity handler of universal waste may conduct the following activities as long as cathode ray tubes are not broken, and the casing of battery cells is not breached and remains intact and closed):

(i) sorting consumer electronic items by

type;

(ii) *mixing consumer electronic item types in one container;*

(iii) *disassembling consumer electronic items to separate CRTs, batteries, circuit boards, or other components to facilitate the recycling or reclamation of these components;*

(4) *A small quantity handler of universal waste who disassembles consumer electronic items for the purpose of facilitating the recycling or reclamation of individual components of those items must determine whether those components and/or other solid waste resulting from the activities listed above exhibit a characteristic of hazardous waste identified in § 261, Subsection C.*

(i) *If the separated components of the consumer electronic items and/or other solid waste exhibit a characteristic of hazardous waste, they may continue to be managed as a universal waste under the provisions of this Section. Otherwise, they are subject to all applicable requirements of Sections 260 through 270 of this Regulation. The handler is then considered the generator of this hazardous waste and/or other waste and is subject to § 262 of this Regulation.*

(ii) *If the separated component or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.*

§ 273.14 Labeling/markings.

A small quantity handler of universal waste must label or mark the universal waste to identify the type of universal waste as specified below:

(a) Universal waste batteries (i.e., each battery), or a container in which the batteries are contained, must be labeled or marked clearly with any one of the following phrases: “Universal Waste - Battery(ies),” or “Waste Battery(ies),” or “Used Battery(ies);”

(b) A container, (or multiple container package unit), tank, transport vehicle or vessel in which recalled universal waste pesticides as described in § 273.3(a)(1) are contained must be labeled or marked clearly with:

(1) The label that was on or accompanied the product as sold or distributed; and

(2) The words “Universal Waste - Pesticide(s)” or “Waste - Pesticide(s);”

(c) A container, tank, or transport vehicle or vessel in which unused pesticide products as described in § 273.3(a)(2) are contained must be labeled or marked clearly with:

(1)(i) The label that was on the product when purchased, if still legible;

(ii) If using the labels described in paragraph

(1)(i) is not feasible, the appropriate label as required under the Department of Transportation regulation 49 CFR part 172;

(iii) If using the labels described in paragraphs (c)(1)(i) and (ii) is not feasible, another label prescribed or designated by the waste pesticide collection program administered or recognized by a state; and

(2) The words “Universal Waste - Pesticide(s)” or “Waste - Pesticide(s).”

(d) Universal waste mercury-containing devices (i.e., each device), or a container in which the thermostats or mercury-containing devices are contained, must be labeled or marked clearly with any one of the following phrases: “Universal Waste,” followed by a description of the item or the items in the container – e.g., “Mercury-Containing Device(s),” or “Waste Mercury-Containing Device(s),” “Used Mercury-Containing Device(s),” Mercury Thermostat(s),” or “Waste Mercury Thermostat(s),” or “Used Mercury Thermostat(s)” .

(e) Each lamp or a container or package in which universal waste lamps are contained must be labeled or marked clearly with one of the following phrases: “Universal Waste—Lamp(s),” or “Waste Lamp(s),” or “Used Lamp(s).”

(f) *Universal waste consumer electronic items (i.e., each item), or a container in which the consumer electronic items are contained, must be labeled or marked clearly with the phrases: “Universal Waste,” followed by a description of the item or the items in the container – e.g., “Consumer Electronic Items”, or “Electronic Wastes,” or “Used Electronic Items;” “Spent CRTs,” etc.*

§ 273.15 Accumulation time limits.

(a) A small quantity handler of universal waste may accumulate universal waste for no longer than one year from the date the universal waste is generated, or received from another handler, unless the requirements of paragraph (b) are met.

(b) A small quantity handler of universal waste may accumulate universal waste for longer than one year from the date the universal waste is generated, or received from another handler, if such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal. However, the handler bears the burden of proving that such activity is solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal.

(c) A small quantity handler of universal waste who accumulates universal waste must be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. The handler may make this demonstration by:

(1) Placing the universal waste in a container and marking or labeling the container with the earliest

date that any universal waste in the container became a waste or was received;

(2) Marking or labeling each individual item of universal waste (e.g., each battery or thermostat) with the date it became a waste or was received;

(3) Maintaining an inventory system on-site that identifies the date each universal waste became a waste or was received;

(4) Maintaining an inventory system on-site that identifies the earliest date that any universal waste in a group of universal waste items or a group of containers of universal waste became a waste or was received;

(5) Placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received; or

(6) Any other method which clearly demonstrates the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.

§ 273.16 Employee training.

A small quantity handler of universal waste must inform all employees who handle or have responsibility for managing universal waste. The information must describe proper handling and emergency procedures appropriate to the type(s) of universal waste handled at the facility.

§ 273.17 Response to releases.

(a) A small quantity handler of universal waste must immediately contain all releases of universal wastes and other residues from universal wastes.

(b) A small quantity handler of universal waste must determine whether any material resulting from the release is hazardous waste, and if so, must manage the hazardous waste in compliance with all applicable requirements of Sections 260 through 270. The handler is considered the generator of the material resulting from the release, and must manage it in compliance with § 262.

§ 273.18 Off-site shipments.

(a) A small quantity handler of universal waste is prohibited from sending or taking universal waste to a place other than another universal waste handler, a destination facility, or a foreign destination.

(b) If a small quantity handler of universal waste self-transport universal waste off-site, the handler becomes a universal waste transporter for those self-transportation activities and must comply with the transporter requirements of Subsection D of this section while transporting the universal

waste.

(c) If a universal waste being offered for off-site transportation meets the definition of hazardous materials under 49 CFR 171 -180, a small quantity handler of universal waste must package, label, mark and placard the shipment, and prepare the proper shipping papers in accordance with the applicable Department of Transportation regulations under 49 CFR parts 172 - 180;

(d) Prior to sending a shipment of universal waste to another universal waste handler, the originating handler must ensure that the receiving handler agrees to receive the shipment.

(e) If a small quantity handler of universal waste sends a shipment of universal waste to another handler or to a destination facility and the shipment is rejected by the receiving handler or destination facility, the originating handler must either:

(1) Receive the waste back when notified that the shipment has been rejected, or

(2) Agree with the receiving handler on a destination facility to which the shipment will be sent.

(f) A small quantity handler of universal waste may reject a shipment containing universal waste, or a portion of a shipment containing universal waste that he has received from another handler. If a handler rejects a shipment or a portion of a shipment, he must contact the originating handler to notify him of the rejection and to discuss reshipment of the load. The handler must:

(1) Send the shipment back to the originating handler, or

(2) If agreed to by both the originating and receiving handler, send the shipment to a destination facility.

(g) If a small quantity handler of universal waste receives a shipment containing hazardous waste that is not a universal waste, the handler must immediately notify the Department of the illegal shipment, and provide the name, address, and phone number of the originating shipper. ADEQ will provide instructions for managing the hazardous waste.

(h) If a small quantity handler of universal waste receives a shipment of non-hazardous, non-universal waste, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

§ 273.19 Tracking universal waste shipments.

A small quantity handler of universal waste is not required to keep records of shipments of universal waste.

§ 273.20 Exports.

A small quantity handler of universal waste who sends universal waste to a foreign destination other than to those OECD

countries specified in 40 CFR 262.58(a)(1) (in which case the handler is subject to the requirements of Section 262, subpart H) must:

(a) Comply with the requirements applicable to a primary exporter in §§ 262.53, 262.56(a)(1) through (4), (6), and (b) and 262.57;

(b) Export such universal waste only upon consent of the receiving country and in conformance with the EPA Acknowledgement of Consent as defined in Subsection E of § 262 of this Regulation; and

(c) Provide a copy of the EPA Acknowledgement of Consent for the shipment to the transporter transporting the shipment for export.

Subsection C – Standards for Large Quantity Handlers of Universal Waste

§ 273.30 Applicability.

This Subsection applies to large quantity handlers of universal waste (as defined in 273.9).

§ 273.31 Prohibitions.

A large quantity handler of universal waste is:

(a) Prohibited from disposing of universal waste; and

(b) Prohibited from diluting or treating universal waste, except by responding to releases as provided in § 273.37; or by managing specific wastes as provided in § 273.33.

§ 273.32 Notification.

(a)(1) Except as provided in paragraphs (a)(2) and (3) of this section, a large quantity handler of universal waste must have sent written notification of universal waste management to the Department and received an EPA Identification Number, before meeting or exceeding the 5,000 kilogram storage limit.

(2) A large quantity handler of universal waste who has already notified the Department of his hazardous waste management activities and has received an EPA Identification Number is not required to renotify under this section.

(3) A large quantity handler of universal waste who manages recalled universal waste pesticides as described in 273.3(a)(1) and who has sent notification to EPA as required by 40 CFR 165 is not required to notify for those recalled universal waste pesticides under this section.

(b) This notification must include:

(1) The universal waste handler's name and mailing address;

(2) The name and business telephone number of

the person at the universal waste handler's site who should be contacted regarding universal waste management activities;

(3) The address or physical location of the universal waste management activities;

(4) A list of all of the types of universal waste managed by the handler (e.g., batteries, pesticides, mercury-containing devices, lamps, and *consumer electronic items*);

(5) A statement indicating that the handler is accumulating more than 5,000 kilograms of universal waste at one time and the types of universal waste (e.g., batteries, pesticides, mercury-containing devices, lamps, and *consumer electronic items*) the handler is accumulating above this quantity.

§ 273.33 Waste management.

(a) Universal waste batteries: A large quantity handler of universal waste must manage universal waste batteries in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A large quantity handler of universal waste must contain any universal waste battery that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a container. The container must be closed, structurally sound, compatible with the contents of the battery, and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(2) A large quantity handler of universal waste may conduct the following activities as long as the casing of each individual battery cell is not breached and remains intact and closed (except that cells may be opened to remove electrolyte but must be immediately closed after removal):

(i) sorting batteries by type;

(ii) mixing battery types in one container;

(iii) discharging batteries so as to remove the electric charge;

(iv) regenerating used batteries;

(v) disassembling batteries or battery packs into individual batteries or cells;

(vi) removing batteries from consumer products; or

(vii) removing electrolyte from batteries.

(3) A large quantity handler of universal waste who removes electrolyte from batteries, or who generates other solid waste (e.g., battery pack materials, discarded consumer products) as a result of the activities listed above, must determine whether the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste identified in §

261, Subsection C.

(i) If the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste, it must be managed in compliance with all applicable requirements of Sections 260 through 270. The handler is considered the generator of the hazardous electrolyte and/or other waste and is subject to § 262.

(ii) If the electrolyte or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

(b) Universal waste pesticides: A large quantity handler of universal waste must manage universal waste pesticides in a way that prevents releases of any universal waste or component of a universal waste to the environment. The universal waste pesticides must be contained in one or more of the following:

(1) A container that remains closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions; or

(2) A container that does not meet the requirements of paragraph (1), provided that the unacceptable container is overpacked in a container that does meet the requirements of paragraph (1); or

(3) A tank that meets the requirements of 265 Subsection J, except for §§ 265.197(c), 265.200, and 265.201; or

(4) A transport vehicle or vessel that is closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

(c) Universal waste mercury-containing devices: A large quantity handler of universal waste must manage universal waste mercury-containing devices in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A large quantity handler of universal waste must place in a container any universal waste mercury-containing device with non-contained elemental mercury or that shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions. The container must be closed, structurally sound, compatible with the contents of the mercury-containing device, and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions, and must be reasonably designed to prevent the escape of mercury into the environment by volatilization or any other means.

(2) A large quantity handler of universal waste may remove mercury-containing ampules from universal waste thermostats or other mercury-

containing devices provided the handler:

(i) Removes the ampules in a manner designed to prevent breakage of the ampules;

(ii) Removes ampules only over or in a containment device (e.g., tray or pan sufficient to contain any mercury released from an ampule in case of breakage);

(iii) Ensures that a mercury clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks from broken ampules, from the containment device to a container that meets the requirements of § 262.34;

(iv) Immediately transfers any mercury resulting from spills or leaks from broken ampules from the containment device to a container that meets the requirements of § 262.34;

(v) Ensures that the area in which ampules are removed is well ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;

(vi) Ensures that employees removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures, including transfer of mercury from containment devices to appropriate containers;

(vii) Stores removed ampules in closed, non-leaking containers that are in good condition;

(viii) Packs removed ampules in the container with packing materials adequate to prevent breakage during storage, handling, and transportation; and

(3) A large quantity handler of universal waste mercury-containing devices that do not contain an ampule may remove the original housing holding the mercury from universal waste mercury-containing devices provided the handler

(i) immediately seals the original housing holding the mercury with an airtight seal to prevent the release of any mercury to the environment; ; and

(ii) Follows all requirements for removing ampules and managing removed ampules under paragraph (2) of this subsection; and

(4)(i) A large quantity handler of universal waste who removes mercury-containing ampules from mercury-containing devices or seals mercury from mercury-containing devices must determine whether the following exhibit a characteristic of hazardous waste identified in § 261, Subsection C:

(A) Mercury or clean-up residues resulting from spills or leaks; and/or

(B) Other solid waste generated as a result of the removal of mercury-containing ampules or housing (e.g., the remaining mercury-containing device).

(ii) If the mercury, residues, and/or other solid waste exhibit a characteristic of hazardous waste, it must be managed in compliance with all applicable requirements of Sections 260 through 270 of this Regulation. The handler is considered the generator of the mercury, residues, and/or other waste and is subject to § 262 of this regulation.

(iii) If the mercury, residues, and/or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

(d) Lamps. A large quantity handler of universal waste must manage lamps in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A large quantity handler of universal waste must contain any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers and packages must remain closed and must lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.

(2) A large quantity handler of universal waste must immediately clean up and place in a container any lamp that is broken and must place in a container any lamp that shows evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment. Containers must be closed, structurally sound, compatible with the contents of the lamps and must lack evidence of leakage, spillage or damage that could cause leakage or releases of mercury or other hazardous constituents to the environment under reasonably foreseeable conditions.

(e) *Consumer electronic items.* A large quantity handler of universal waste must manage waste consumer electronic items in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A large quantity handler of universal waste must contain any waste consumer electronic item in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the items. Such containers and packages must remain closed and must lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.

(2) A large quantity handler of universal waste must immediately clean up and place in a container any CRT that is broken and must place in a container any CRT that shows evidence of breakage, leakage, or damage that could cause the release of lead or other hazardous constituents to the envi-

ronment. Containers must be closed, structurally sound, compatible with the contents of the items and must lack evidence of leakage, spillage or damage that could cause leakage or releases of lead or other hazardous constituents to the environment under reasonably foreseeable conditions.

(3) A large quantity handler of universal waste may conduct the following activities as long as cathode ray tubes are not broken and the casing of battery cells is not breached and remains intact and closed):

(i) sorting consumer electronic items by type;

(ii) mixing consumer electronic item types in one container;

(iii) disassembling consumer electronic items to separate CRTs, batteries, circuit boards, or other components to facilitate the recycling or reclamation of these components;

(4) A large quantity handler of universal waste who disassembles consumer electronic items for the purpose of facilitating the recycling or reclamation of individual components of those items must determine whether those components and/or other solid waste resulting from the activities listed above exhibit a characteristic of hazardous waste identified in § 261, Subsection C.

(i) If the separated components of the consumer electronic items and/or other solid waste exhibit a characteristic of hazardous waste, they may continue to be managed as a universal waste under the provisions of this Section. Otherwise, they are subject to all applicable requirements of Sections 260 through 270 of this Regulation. The handler is then considered the generator of this hazardous waste and/or other waste and is subject to § 262 of this Regulation.

(ii) If the separated component or other solid waste is not hazardous, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

§ 273.34 Labeling/markings.

A large quantity handler of universal waste must label or mark the universal waste to identify the type of universal waste as specified below:

(a) Universal waste batteries (i.e., each battery), or a container or tank in which the batteries are contained, must be labeled or marked clearly with any one of the following phrases: “Universal Waste - Battery(ies),” or “Waste Battery(ies),” or “Used Battery(ies);”

(b) A container (or multiple container package unit), tank, transport vehicle or vessel in which recalled universal

waste pesticides as described in § 273.3(a)(1) are contained must be labeled or marked clearly with:

- (1) The label that was on or accompanied the product as sold or distributed; and
- (2) The words “Universal Waste - Pesticide(s)” or “Waste - Pesticide(s);”

(c) A container, tank, or transport vehicle or vessel in which unused pesticide products as described in § 273.3(a)(2) are contained must be labeled or marked clearly with:

- (1)(i) The label that was on the product when purchased, if still legible;
 - (ii) If using the labels described in paragraph (1)(i) is not feasible, the appropriate label as required under the Department of Transportation regulation 49 CFR part 172;
 - (iii) If using the labels described in paragraphs (1)(i) and (1)(ii) is not feasible, another label prescribed or designated by the pesticide collection program; and
- (2) The words “Universal Waste - Pesticide(s)” or “Waste - Pesticide(s).”

(d) Universal waste mercury-containing devices (i.e., each mercury-containing device), or a container in which the mercury-containing devices are contained, must be labeled or marked clearly with any one of the following phrases: “Universal Waste,” followed by a description of the item or the items in the container – e.g., “Mercury-Containing Device(s),” or “Waste Mercury-Containing Device(s),” “Used Mercury-Containing Device(s),” Mercury Thermostat(s),” or “Waste Mercury Thermostat(s),” or “Used Mercury Thermostat(s).”

(e) Each lamp or a container or package in which universal waste lamps are contained must be labeled or marked clearly with any one of the following phrases: “Universal Waste—Lamp(s),” or “Waste Lamp(s),” or “Used Lamp(s).”

(f) *Universal waste consumer electronic items (i.e., each item), or a container in which the consumer electronic items are contained, must be labeled or marked clearly with the phrases: “Universal Waste,” followed by a description of the item or the items in the container – e.g., “Consumer Electronic Items”, or “Electronic Wastes,” or “Used Electronic Items;” etc.*

§ 273.35 Accumulation time limits.

(a) A large quantity handler of universal waste may accumulate universal waste for no longer than one year from the date the universal waste is generated, or received from another handler, unless the requirements of paragraph (b) are met.

(b) A large quantity handler of universal waste may accumulate universal waste for longer than one year from the date the universal waste is generated, or received from another handler, if such activity is solely for the purpose of accumulation of such quantities of universal waste as

necessary to facilitate proper recovery, treatment, or disposal. However, the handler bears the burden of proving that such activity was solely for the purpose of accumulation of such quantities of universal waste as necessary to facilitate proper recovery, treatment, or disposal.

(c) A large quantity handler of universal waste must be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. The handler may make this demonstration by:

- (1) Placing the universal waste in a container and marking or labeling the container with the earliest date that any universal waste in the container became a waste or was received;
- (2) Marking or labeling the individual item of universal waste (e.g., each battery or thermostat) with the date it became a waste or was received;
- (3) Maintaining an inventory system on-site that identifies the date the universal waste being accumulated became a waste or was received;
- (4) Maintaining an inventory system on-site that identifies the earliest date that any universal waste in a group of universal waste items or a group of containers of universal waste became a waste or was received;
- (5) Placing the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in the area became a waste or was received; or
- (6) Any other method which clearly demonstrates the length of time that the universal waste has been accumulated from the date it becomes a waste or is received.

§ 273.36 Employee training.

A large quantity handler of universal waste must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relative to their responsibilities during normal facility operations and emergencies.

§ 273.37 Response to releases.

(a) A large quantity handler of universal waste must immediately contain all releases of universal wastes and other residues from universal wastes.

(b) A large quantity handler of universal waste must determine whether any material resulting from the release is hazardous waste, and if so, must manage the hazardous waste in compliance with all applicable requirements of Sections 260 through 270. The handler is considered the generator of the material resulting from the release, and is subject to § 262.

US EPA ARCHIVE DOCUMENT

§ 273.38 Off-site shipments.

(a) A large quantity handler of universal waste is prohibited from sending or taking universal waste to a place other than another universal waste handler, a destination facility, or a foreign destination.

(b) If a large quantity handler of universal waste self-transport universal waste off-site, the handler becomes a universal waste transporter for those self-transportation activities and must comply with the transporter requirements of Subsection D of this section while transporting the universal waste.

(c) If a universal waste being offered for off-site transportation meets the definition of hazardous materials under 49 CFR 171 -180, a large quantity handler of universal waste must package, label, mark and placard the shipment, and prepare the proper shipping papers in accordance with the applicable Department of Transportation regulations under 49 CFR parts 172 - 180;

(d) Prior to sending a shipment of universal waste to another universal waste handler, the originating handler must ensure that the receiving handler agrees to receive the shipment.

(e) If a large quantity handler of universal waste sends a shipment of universal waste to another handler or to a destination facility and the shipment is rejected by the receiving handler or destination facility, the originating handler must either:

- (1) Receive the waste back when notified that the shipment has been rejected, or
- (2) Agree with the receiving handler on a destination facility to which the shipment will be sent.

(f) A large quantity handler of universal waste may reject a shipment containing universal waste, or a portion of a shipment containing universal waste that he has received from another handler. If a handler rejects a shipment or a portion of a shipment, he must contact the originating handler to notify him of the rejection and to discuss reshipment of the load. The handler must:

- (1) Send the shipment back to the originating handler, or
- (2) If agreed to by both the originating and receiving handler, send the shipment to a destination facility.

(g) If a large quantity handler of universal waste receives a shipment containing hazardous waste that is not a universal waste, the handler must immediately notify the Department of the illegal shipment, and provide the name, address, and phone number of the originating shipper. The Department will provide instructions for managing the hazardous waste.

(h) If a large quantity handler of universal waste receives a shipment of non-hazardous, non-universal waste, the handler may manage the waste in any way that is in compliance with applicable federal, state or local solid waste regulations.

§ 273.39 Tracking universal waste shipments.

(a) Receipt of shipments A large quantity handler of universal waste must keep a record of each shipment of universal waste received at the facility. The record may take the form of a log, invoice, manifest, bill of lading, or other shipping document. The record for each shipment of universal waste received must include the following information:

- (1) The name and address of the originating universal waste handler or foreign shipper from whom the universal waste was sent;
- (2) The quantity of each type of universal waste received (e.g., batteries, pesticides, thermostats);
- (3) The date of receipt of the shipment of universal waste.

(b) Shipments off-site A large quantity handler of universal waste must keep a record of each shipment of universal waste sent from the handler to other facilities. The record may take the form of a log, invoice, manifest, bill of lading or other shipping document. The record for each shipment of universal waste sent must include the following information:

- (1) The name and address of the universal waste handler, destination facility, or foreign destination to whom the universal waste was sent;
- (2) The quantity of each type of universal waste sent (e.g., batteries, pesticides, thermo-stats);
- (3) The date the shipment of universal waste left the facility.

(c) Record retention (1) A large quantity handler of universal waste must retain the records described in paragraph (a) of this section for at least three years from the date of receipt of a shipment of universal waste.

- (2) A large quantity handler of universal waste must retain the records described in paragraph (b) of this section for at least three years from the date a shipment of universal waste left the facility.

§ 273.40 Exports.

A large quantity handler of universal waste who sends universal waste to a foreign destination other than to those OECD countries specified in 40 CFR 262.58(a)(1) (in which case the handler is subject to the requirements of 40 CFR part 262, subpart H) must:

(a) Comply with the requirements applicable to a primary exporter in §§ 262.53, 262.56(a)(1) through (4), (6), and (b) and 262.57;

(b) Export such universal waste only upon consent of the receiving country and in conformance with the EPA Acknowledgement of Consent as defined in Subsection E of § 262 of this Regulation; and

(c) Provide a copy of the EPA Acknowledgement of Consent for the shipment to the transporter transporting the shipment for export.

Subsection D – Standards for Universal Waste Transporters.

§ 273.50 Applicability.

This Subsection applies to universal waste transporters (as defined in 273.9).

§ 273.51 Prohibitions.

A universal waste transporter is:

- (a) Prohibited from disposing of universal waste; and
- (b) Prohibited from diluting or treating universal waste, except by responding to releases as provided in § 273.54.

§ 273.52 Waste management.

(a) A universal waste transporter must comply with all applicable U.S. Department of Transportation regulations in 49 CFR part 171 through 180 for transport of any universal waste that meets the definition of hazardous material in 49 CFR 171.8. For purposes of the Department of Transportation regulations, a material is considered a hazardous waste if it is subject to the Hazardous Waste Manifest Requirements of the U.S. Environmental Protection Agency specified in 40 CFR 262. Because universal waste does not require a hazardous waste manifest, it is not considered hazardous waste under the Department of Transportation regulations.

(b) Some universal waste materials are regulated by the Department of Transportation as hazardous materials because they meet the criteria for one or more hazard classes specified in 49 CFR 173.2. As universal waste shipments do not require a manifest under 262, they may not be described by the DOT proper shipping name “hazardous waste, (l) or (s), n.o.s.”, nor may the hazardous material’s proper shipping name be modified by adding the word “waste”.

§ 273.53 Storage time limits.

(a) A universal waste transporter may only store the universal waste at a universal waste transfer facility for ten days or less.

(b) If a universal waste transporter stores universal waste for more than ten days, the transporter becomes a universal waste handler and must comply with the applicable requirements of Subsections B or C of this section while storing the universal waste.

§ 273.54 Response to releases.

(a) A universal waste transporter must immediately contain all releases of universal wastes and other residues from universal wastes.

(b) A universal waste transporter must determine whether any material resulting from the release is hazardous waste, and if so, it is subject to all applicable requirements of Sections 260 through 272. If the waste is determined to be a hazardous waste, the transporter is subject to § 262.

273.55 Off-site shipments

(a) A universal waste transporter is prohibited from transporting the universal waste to a place other than a universal waste handler, a destination facility, or a foreign destination.

(b) If the universal waste being shipped off-site meets the Department of Transportation’s definition of hazardous materials under 49 CFR 171.8, the shipment must be properly described on a shipping paper in accordance with the applicable Department of Transportation regulations under 49 CFR part 172.

§ 273.56 Exports.

A universal waste transporter transporting a shipment of universal waste to a foreign destination other than to those OECD countries specified in 40 CFR 262.58(a)(1) (in which case the transporter is subject to the requirements of 40 CFR part 262, subpart H) may not accept a shipment if the transporter knows the shipment does not conform to the EPA Acknowledgment of Consent. In addition the transporter must ensure that:

- (a) A copy of the EPA Acknowledgment of Consent accompanies the shipment; and
- (b) The shipment is delivered to the facility designated by the person initiating the shipment.

Subsection E – Standards for Destination Facilities

§ 273.60 Applicability

(a) The owner or operator of a destination facility (as defined in 273.9) is subject to all applicable requirements of Sections 264, 265, 266, 268, and 270, of this Regulation, and the notification requirement under Section 3010 of RCRA:

(b) The owner or operator of a destination facility that recycles a particular universal waste without storing that universal waste before it is recycled must comply with § 261.6(c)(2).

§ 273.61 Off-site shipments.

(a) The owner or operator of a destination facility is prohibited from sending or taking universal waste to a place other than a universal waste handler, another destination facility or foreign destination.

(b) The owner or operator of a destination facility may reject a shipment containing universal waste, or a portion of a shipment containing universal waste. If the owner or operator of the destination facility rejects a shipment or a portion of a shipment, he must contact the shipper to notify him of the rejection and to discuss reshipment of the load. The owner or operator of the destination facility must:

(1) Send the shipment back to the original shipper, or

(2) If agreed to by both the shipper and the owner or operator of the destination facility, send the shipment to another destination facility.

(c) If the a owner or operator of a destination facility receives a shipment containing hazardous waste that is not a universal waste, the owner or operator of the destination facility must immediately notify the Department of the illegal shipment, and provide the name, address, and phone number of the shipper. The Department will provide instructions for managing the hazardous waste.

(d) If the owner or operator of a destination facility receives a shipment of non-hazardous, non-universal waste, the owner or operator may manage the waste in any way that is in compliance with applicable federal or state solid waste regulations.

§ 273.62 Tracking universal waste shipments.

(a) The owner or operator of a destination facility must keep a record of each shipment of universal waste received at the facility. The record may take the form of a log, invoice, manifest, bill of lading, or other shipping document. The record for each shipment of universal waste received must include the following information:

(1) The name and address of the universal waste handler, destination facility, or foreign shipper from whom the universal waste was sent;

(2) The quantity of each type of universal waste received (e.g., batteries, pesticides, thermostats);

(3) The date of receipt of the shipment of universal waste.

(b) The owner or operator of a destination facility must retain the records described in paragraph (a) of this section for at least three years from the date of receipt of a shipment of universal waste.

Subsection F – Import Requirements**§ 273.70 Imports.**

Persons managing universal waste that is imported from a foreign country into the United States are subject to the applicable requirements of this part, immediately after the waste enters the United States, as indicated in paragraphs (a) through (c) of this section :

(a) A universal waste transporter is subject to the universal waste transporter requirements of Subsection D of this Section.

(b) A universal waste handler is subject to the small or large quantity handler of universal waste requirements of Subsections B or C, as applicable.

(c) An owner or operator of a destination facility is subject to the destination facility requirements of Subsection E of this Section.

(d) Persons managing universal waste that is imported from an OECD country as specified in § 262.58(a)(1) are subject to paragraphs (a) through (c) of this section, in addition to the requirements of 40 CFR part 262, subpart H.

Subsection G – Petitions to Include Other Wastes under § 273**§ 273.80 General.**

(a) Any person seeking to add a hazardous waste or a category of hazardous waste to this part may petition for a regulatory amendment under this Subsection, § 260.20 and § 260.23.

(b) To be successful, the petitioner must demonstrate to the satisfaction of the Commission that regulation under the universal waste regulations of § 273 is: appropriate for the waste or category of waste; will improve management practices for the waste or category of waste; and will improve implementation of the hazardous waste program. The petition must include the information required by § 260.20(b). The petition should also address as many of the factors listed in § 273.81 as are appropriate for the waste or waste category addressed in the petition.

(c) The Commission will evaluate petitions using the factors listed in § 273.81. The Commission will grant or deny a petition using the factors listed in § 273.81. The decision will be based on the weight of evidence showing that regulation under § 273 is appropriate for the waste or category of waste, will improve management practices for the waste or category of waste, and will improve implementation of the hazardous waste program.

§ 273.81 Factors for Petitions to Include Other Wastes under § 273.

(a) The waste or category of waste, as generated by a wide variety of generators, is listed in Subsection D of Section 261 of this Regulation, or (if not listed) a proportion of the waste stream exhibits one or more characteristics of hazardous waste identified in Subsection C of § 261 of this Regulation. (When a characteristic waste is added to the universal waste regulations of § 273 by using a generic name to identify the waste category (e.g., batteries), the definition of universal waste in § 260.10 and § 273.9 will be amended to include only the hazardous waste portion of the waste category (e.g., hazardous waste batteries). Thus, only the portion of the waste stream that does exhibit one or more characteristics (i.e., is hazardous waste) is subject to the universal waste regulations of § 273;

(b) The waste or category of waste is not exclusive to a specific industry or group of industries, is commonly generated by a wide variety of types of establishments (including, for example, households, retail and commercial businesses, office complexes, conditionally exempt small quantity generators, small businesses, government organizations, as well as large industrial facilities);

(c) The waste or category of waste is generated by a large number of generators (e.g., more than 1,000 nationally) and is frequently generated in relatively small quantities by each generator;

(d) Systems to be used for collecting the waste or category of waste (including packaging, marking, and labeling practices) would ensure close stewardship of the waste;

(e) The risk posed by the waste or category of waste during accumulation and transport is relatively low compared to other hazardous wastes, and specific management standards proposed or referenced by the petitioner (e.g., waste management requirements appropriate to be added to §§ 273.13, 273.33, and 273.52; and/or applicable Department of Transportation requirements) would be protective of human health and the environment during accumulation and transport;

(f) Regulation of the waste or category of waste under § 273 will increase the likelihood that the waste will be diverted from non-hazardous waste management systems (e.g., the municipal waste stream, non-hazardous industrial or commercial waste stream, municipal sewer or stormwater systems) to recycling, treatment, or disposal in compliance with the Hazardous Waste Management Act.

(g) Regulation of the waste or category of waste under § 273 will improve implementation of and compliance with the hazardous waste regulatory program; and/or

(h) Such other factors as may be appropriate.

Section 279. STANDARDS FOR THE MANAGEMENT OF USED OIL

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Subsection A – Definitions

§ 279.1 Definitions.

Terms that are defined in §§ 260.10 and 261.1 of this regulation and 40 CFR Part 280 have the same meanings when used in this part.

“**Aboveground tank**” means a tank used to store or process used oil that is not an underground storage tank as defined in 40 CFR 280.12.

“**Container**” means any portable device in which a material is stored, transported, treated, disposed of, or otherwise handled.

“**Do-it-yourselfer used oil collection center**” means any site or facility that accepts and/or aggregates and stores used oil collected only from household do-it-yourselfers.

“**Existing tank**” means a tank that is used for the storage or processing of used oil and that is in operation or for which installation has commenced on or prior to the effective date of the regulations in this Section. Installation will be considered to have commenced if the owner or operator has obtained all federal, state, and local approvals or permits necessary to begin installation of the tank and if either (1) a continuous on-site installation program has begun, or (2) the owner or operator has entered into contractual obligations - which cannot be modified or cancelled without substantial loss - for installation of the tank to be completed within a reasonable time.

“**Household do-it-yourselfer used oil**” means oil that is generated from households, such as used oil generated by individuals who generate used oil through the maintenance of their personal vehicles.

“**Household do-it-yourselfer used oil generator**” means an individual who generates household do-it-yourselfer used oil.

“**New tank**” means a tank that will be used to store or process used oil and for which installation has commenced after the effective date of the regulations in this Section.

“**Petroleum refining facility**” means an establishment primarily engaged in producing gasoline, kerosene, distillate fuel oils, residual fuel oils, and lubricants, through fractionation, straight distillation of crude oil, redistillation of unfinished petroleum derivatives, cracking or other processes (i.e., facilities classified as SIC 2911).

“**Processing**” means chemical or physical operations designed to produce from used oil, or to make used oil more amenable for production of, fuel oils, lubricants, or other used-oil derived products. Processing includes, but is not limited to, blending used oil with virgin petroleum products, blending used oils to meet the fuel specification, filtration, simple distillation, chemical or physical separation, and re-refining.

“**Re-refining distillation bottoms**” means the heavy fraction produced by vacuum distillation of filtered and dehydrated used oil. The composition of still bottoms varies with column operation and feedstock.

“**Tank**” means any stationary device, designed to contain an accumulation of used oil which is constructed primarily of non-earthen materials, (e.g., wood, concrete, steel, plastic) which provides structural support.

“**Used oil**” means any oil that has been refined from crude oil, or any synthetic oil, that has been used and as a result of that use is contaminated by physical or chemical impurities.

“**Used oil aggregation point**” means any site or facility that accepts, aggregates, and/or stores used oil collected only from other used oil generation sites owned or operated by the owner or operator of the aggregation point, from which used oil is transported to the aggregation point in shipments of no more than 55 gallons. Used oil aggregation points may also accept used oil from household do-it-yourselfers.

“**Used oil burner**” means a facility where used oil not meeting the specification requirements in § 279.11 is burned for energy recovery in devices identified in § 279.61(a).

“**Used oil collection center**” means any site or facility that is registered, licensed, permitted, or recognized by a state, county, or municipal government to manage used oil and accepts or aggregates and stores used oil collected from used oil generators regulated under Subsection C of this Section who bring used oil to the collection center in shipment of no more than 55 gallons under the provisions of Section 279.24. Used oil collection centers may also accept used oil from household do-it-yourselfers.

“**Used oil fuel marketer**” means any person who conducts either of the following activities:

- (1) Directs a shipment of off-specification used oil from their facility to a used oil burner; or
- (2) First claims that used oil that is to be burned for energy meets the used oil specifications set forth in § 279.11 of this Section.

“**Used oil generator**” means any person, by site, whose act or process produces used oil or whose act first causes used oil to become subject to regulation.

“**Used oil processor**” or “**used oil re-refiner**” means a facility that processes used oil.

“**Used oil transfer facility**” means any transportation related facility including loading docks, parking areas, storage areas and other areas where shipments of used oil are held for more than 24 hours and not longer than 35 days during the normal course of transportation or prior to an activity performed pursuant to § 279.20(b)(2). Transfer facilities that

store used oil for more than 35 days are subject to regulation under subsection F of this Section.

“**Used oil transporter**” means any person who transports used oil, any person who collects used oil from more than one generator and transports the collected oil, and owners and operators of used oil transfer facilities. Used oil transporters may consolidate or aggregate loads of used oil for purposes of transportation but, with the following exception, may not process used oil. Transporters may conduct incidental processing operations that occur in the normal course of used oil transportation (e.g., settling and water separation) but that are not designed to produce (or make more amenable for production of) used oil derived products or used oil fuel.

Subsection B – Applicability

§ 279.10 Applicability.

This section identifies those materials which are subject to regulation as used oil under this Section. This section also identifies some materials that are not subject to regulation as used oil under this Section, and indicates whether these materials may be subject to regulation as hazardous wastes under Sections 260 through 270 of this regulation.

(a) Used oil. The Department presumes that used oil is to be recycled unless a used oil handler disposes of used oil, or sends used oil for disposal. Except as provided in § 279.11, the regulations of this Section apply to used oil, and to materials identified in this Section as being subject to regulation as used oil, whether or not the used oil or material exhibits any characteristic of hazardous waste identified in Subsection C of Section 261 of this regulation.

(b) Mixtures of used oil and hazardous waste.

(1) Listed hazardous wastes.

(i) Mixtures of used oil and any hazardous waste that is listed in Subsection D of Section 261 of this regulation are subject to regulation as hazardous waste under Sections 260 through 270 of this regulation, rather than as used oil under this Section.

(ii) Rebuttable presumption for used oil. Used oil containing more than 1000 ppm total halogens is presumed to be a hazardous waste because it has been mixed with a halogenated hazardous waste listed in Subsection D, Section 261 of this regulation. Persons may rebut this presumption by demonstrating that the used oil does not contain hazardous waste, for example by showing that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in Appendix VIII of Section 261 of this regulation).

(A) The rebuttable presumption does not apply to metalworking oils or fluids containing chlorinated paraffins, if they

are processed, through a tolling arrangement as described in § 279.24(c), to reclaim metalworking oils/fluids. The presumption *does* apply to metalworking oils and fluids if such oils and fluids are recycled in any other manner or disposed.

(B) The rebuttable presumption does not apply to used oils contaminated with chloroflourocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption *does* apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(2) Characteristic hazardous waste. Mixtures of used oil and hazardous waste that solely exhibit one or more of the hazardous waste characteristics identified in Subsection C of Section 261 of this regulation and mixtures of used oil and hazardous waste that is listed in Subsection D of Section 261 solely because it exhibits one or more of the characteristics of hazardous waste identified in Subsection C are subject to :

(i) Except as provided in paragraph (b)(2)(iii) of this section, regulation as hazardous waste under Sections 260 through 270 of this regulation rather than as used oil under this section, if the resultant mixture exhibits any characteristics of hazardous waste identified in Subsection C of Section 261 of this regulation.

(ii) Except as specified in § 279.10(b)(2)(iii), regulation as used oil under this Section, if the resultant mixture does not exhibit any characteristics of hazardous waste identified in Subsection C of Section 261 of this regulation.

(iii) Regulation as used oil under this Section, if the mixture is of used oil and a waste which is hazardous solely because it exhibits the characteristic of ignitability (e.g., ignitable-only mineral spirits), provided that the resultant mixture does not exhibit the characteristic of ignitability under § 261.21 of this regulation.

(3) Conditionally exempt small quantity generator hazardous waste. Mixtures of used oil and conditionally exempt small quantity generator hazardous waste are subject to regulation as used oil under this Section.

(c) Materials containing or otherwise contaminated with used oil. (1) Except as provided in paragraph (c)(2) of this Subsection, materials containing or otherwise contaminated with used oil from which the used oil has been properly drained or removed to the extent possible such that no signs of free-flowing used oil remain in or on the material:

(i) Are not used oil and thus not subject to

this Section; and

(ii) If applicable are subject to the hazardous waste regulations of Sections 261 through 266, 268, and 270 of this Regulation.

(2) Materials containing or otherwise contaminated with used oil that are burned for energy recovery are subject to regulation as used oil under this Section.

(3) Used oil drained or removed from materials containing or otherwise contaminated with used oil is subject to regulation as used oil under this Section.

(d) Mixtures of used oil with products.

(1) Except as provided in paragraph (d)(2) of this section, mixtures of used oil and fuels or other fuel products are subject to regulation as used oil under this Section.

(2) Mixtures of used oil and diesel fuel mixed on-site by the generator of the used oil for use in the generator's own vehicles are not subject to this Section once the used oil and diesel fuel have been mixed. Prior to the mixing, the used oil is subject to the requirements of Subsection C of this Section.

(e) Materials derived from used oil.

(1) Materials that are reclaimed from used oil that are used beneficially and are not burned for energy recovery or used in a manner constituting disposal (e.g., re-refined lubricants) are:

(i) Not used oil, and therefore not subject to this part, and

(ii) Not solid wastes, and are thus not subject to the hazardous waste regulations of Sections 260-270 of this regulation as provided for by § 261.3(c)(2)(i) of this regulation.

(2) Materials produced from used oil that are burned for energy recovery (e.g., used oil fuels) are subject to regulation as used oil under this Section.

(3) Except as provided for in paragraph (e)(4) below, materials derived from used oil that are used in a manner constituting disposal are:

(i) Not used oil, and therefore not subject to this Section, and

(ii) Are solid wastes, and thus are subject to the hazardous waste regulations of Sections 260-270 of this regulation if the materials are listed or identified as hazardous waste.

(4) Used oil re-refining distillation bottoms that are used as feedstock to manufacture asphalt products are not subject to this Section.

(f) Wastewater. Wastewater, the discharge of which is subject to regulation under either Section 402 or 307(b) of the Federal Clean Water Act and the Water and Air Pollution Control Act (including wastewaters at facilities which have eliminated the discharge of wastewater), contaminated with *de minimis* quantities of used oil are not subject to the requirements of this part. For the purpose of this Section, "*de minimis*" quantities of used oil are defined as small spills, leaks, or drippings from pumps, machinery, pipes, and other

similar equipment during normal operations or small amounts of oil lost to the wastewater treatment system during washing or draining operations. This exception will not apply if the used oil is discarded as a result of abnormal manufacturing operations resulting in substantial leaks, spills, or other releases, or to used oil recovered from wastewaters.

(g) Used oil introduced into crude oil pipelines or a petroleum refining facility. (1) Used oil mixed with crude oil or natural gas liquids (e.g., in a production separator or crude oil stock tank) for insertion into a crude oil pipeline is exempt from the requirements of this Section. The used oil is subject to the requirements of this Section prior to the mixing of used oil with crude oil or natural gas liquids.

(2) Mixtures of used oil and crude oil or natural gas liquids containing less than 1% used oil that are being stored or transported to a crude oil pipeline or petroleum refining facility for insertion into the refining process at a point prior to crude distillation or catalytic cracking are exempt from the requirements of this Section.

(3) Used oil that is inserted into the petroleum refining facility process before crude distillation or catalytic cracking without prior mixing with crude oil is exempt from the requirements of this Section provided that the used oil constitutes less than 1% of the crude oil feed to any petroleum refining facility process unit at any given time. Prior to insertion into the petroleum refining facility process, the used oil is subject to the requirements of this Section.

(4) Except as provided in paragraph (g)(5) of this section, used oil that is introduced into a petroleum refining facility process after crude distillation or catalytic cracking is exempt from the requirements of this Section only if the used oil meets the specification of § 279.11. Prior to insertion into the petroleum refining facility process, the used oil is subject to the requirements of this Section.

(5) Used oil that is incidentally captured by a hydrocarbon recovery system or wastewater treatment system as part of routine process operations at a petroleum refining facility and inserted into the petroleum refining facility process is exempt from the requirements of this Section. This exemption does not extend to used oil which is intentionally introduced into a hydrocarbon recovery system (e.g., by pouring collected used oil into the waste water treatment system).

(6) Tank bottoms from stock tanks containing exempt mixtures of used oil and crude oil or natural gas liquids are exempt from the requirements of this Section.

(h) Used oil on vessels. Used oil produced on vessels from normal shipboard operations is not subject to this Section until it is transported ashore.

(i) Used oil containing PCBs. Used oil containing PCBs (as defined at 40 CFR 761.3) at any concentration less than 50 ppm is subject to the requirements of this Section unless,

because of dilution, it is regulated under 40 CFR Part 761 as a used oil containing PCBs at 50 ppm or greater. PCB-containing used oil subject to the requirements of this Section may also be subject to the prohibitions and requirements found at 40 CFR Part 761, including § 761.20(d) and (e). Used oil containing PCBs at concentrations of 50 ppm or greater is not subject to the requirements of this Section, but is subject to regulation under 40 CFR Part 761. No person may avoid these provisions by diluting used oil containing PCBs, unless otherwise specifically provided for in this Regulation or 40 CFR Part 761.

§ 279.11 Used oil specifications.

Used oil burned for energy recovery, and any fuel produced from used oil by processing, blending, or other treatment is subject to regulation under this Section unless it is shown not to exceed any of the allowable levels of the constituents and properties in the specification shown in Table 1. Once used oil that is to be burned for energy recovery has been shown not to exhibit any specification and the person and the person making that showing complies with §§ 279.72, 279.73, and 279.74(b), the used oil is no longer subject to this Section.

TABLE 1.

USED OIL NOT EXCEEDING ANY ALLOWABLE LEVEL SHOWN BELOW IS NOT SUBJECT TO THIS SECTION WHEN BURNED FOR ENERGY RECOVERY¹

<u>Constituent/Property</u>	<u>Allowable Level</u>
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Flash Point	100 °F minimum
Total Halogens	4,000 ppm maximum ²

(1) The allowable levels do not apply to mixtures of used oil and hazardous waste that continue to be regulated as hazardous waste (See § 279.10(b)).

(2) Used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste under the rebuttable presumption provided under §279.10(b)(1). Such used oil is subject to Subsection H of Section 266 of this regulation rather than this Section when burned for energy recovery unless the presumption of mixing can be successfully rebutted.

(3) Applicable standards for the burning of used oil containing PCBs are imposed by 40 CFR 761.20(e).

§ 279.12 Prohibitions.

(a) Surface impoundment prohibition. Used oil shall not be managed in surface impoundments or waste piles unless the units are subject to regulation under Sections 264 or 265 of this regulation.

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(b) Use as a dust suppressant. Except as provide at § 279.82, the use of used oil as a dust suppressant is prohibited.

(c) Burning in particular units. Off-specification used oil fuel may be burned for energy recovery only in the following devices:

- (1) Industrial furnaces identified in § 260.10 of this regulation.
- (2) Boilers, as defined in § 260.10 of this regulation, that are identified as follows:
 - (i) Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical means;
 - (ii) Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale; or
 - (iii) Used oil-fired space heaters provided the burner meets the requirements of § 279.23.
- (3) Hazardous waste incinerators subject to regulation under Subsection O of Sections 264 or 265 of this Regulation.

Subsection C – Standards for Used Oil Generators

§ 279.20 Applicability.

(a) General. Except as provided in paragraphs (a)(1) through (a)(4) below, this Subsection applies to all used oil generators. A used oil generator is any person, by site, whose act or process produces used oil or whose act causes used oil to become subject to these regulations.

- (1) Household “do-it-yourselfer” used oil generators. Household “do-it-yourselfer” used oil generators are not subject to regulation under this part.
- (2) Vessels. Vessels at sea or at port are not subject to this Section. For purpose of this Section, used oil produced on vessels from normal shipboard operations is considered to be generated at the time it is transported ashore. The owner or operator of the vessel are co-generators of the used oil and are both responsible for managing the waste in compliance with this Section once the used oil is transported ashore. The co-generators may decide among themselves which party will fulfill the requirements of this Section.
- (3) Diesel fuel. Mixtures of used oil and diesel fuel mixed by the generator of the used oil for use in the generator’s own vehicle are not subject to this Section once the diesel fuel and the used oil have been mixed. Prior to mixing, the used oil is subject to the requirements of this Section.
- (4) Farmers. Farmers who generate an average of 25 gallons per month or less of used oil from

vehicles or machinery used on the farm in a calendar year are not subject to the requirements of this part.

(b) Other applicable provisions. Used oil generators who conduct the following activities are subject to the requirements of other applicable provisions of this part as indicated in paragraphs (b)(1) through (5) of this Section.:

(1) Generators who transport used oil, except under the self-transport provisions of § 279.24(a) and (b), must also comply with Subsection E of this Section.

(2) (i) Except as provided in paragraph (b)(2)(ii) of this section, generators who process or re-refine used oil must also comply with subsection F of this Section.

(ii) Generators who perform the following activities are not processors provided that the used oil is generated on-site and is not being sent off-site to a burner of on- or off-specification used oil fuel.

(A) Filtering, cleaning, or otherwise reconditioning used oil before returning it for reuse by the generator;

(B) Separating used oil from wastewater generated on-site to make the wastewater acceptable for discharge or reuse pursuant to section 402 or section 307(b) of the Clean Water Act or other applicable Federal or state regulations governing the management or discharge of wastewaters;

(C) Using oil mist collectors to remove small droplets of used oil from in-plant air to make plant air suitable for continued recirculation;

(D) Draining or otherwise removing used oil from materials containing or otherwise contaminated with used oil in order to remove excessive oil to the extent possible pursuant to § 279.10(c); or

(E) Filtering, separating or otherwise reconditioning used oil before burning it in a space heater pursuant to § 279.23.

(3) Generators who burn off-specification used oil for energy recovery, except under the on-site space heater provisions of § 279.23, must also comply with Subsection G of this Section.

(4) Generators who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in § 279.11 must also comply with Subsection H of this Section.

(5) Generators who dispose of used oil, including the use of used oil as a dust suppressant, must also comply with Subsection I of this Section.

§ 279.21 Hazardous waste mixing.

(a) Mixtures of used oil and hazardous waste must be managed in accordance with § 279.10(b) .

(b) The rebuttable presumption for used oil of § 279.10(b)(1)(ii) applies to used oil managed by generators. Under the rebuttable assumption for used oil, used oil containing more than 1,000 ppm total halogens is presumed to be a hazardous waste and thus must be managed as hazardous waste and not as used oil unless the presumption is successfully rebutted. However, the rebuttable presumption does not apply to certain metalworking oils and fluids and certain used oils removed from refrigeration units.

§ 279.22 Used oil storage.

Used oil generators are subject to all applicable federal Spill Prevention, Control, and Countermeasures (40 CFR Part 112) in addition to the requirements of this Subsection. Used oil generators are also subject to the Underground Storage Tank (40 CFR Part 280; APC&EC Regulation No. 12) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this Subsection.

(a) Storage units. Used oil generators shall not store used oil in units other than tanks, containers, or units subject to regulation under Sections 264 and 265 of this regulation.

(b) Condition of units. Containers and aboveground tanks used to store used oil at generator facilities must be:

- (1) In good condition (no severe rusting, apparent structural defects, or deterioration); and
- (2) Not leaking (no visible leaks).

(c) Labels.

(1) Containers and aboveground tanks used to store used oil at generator facilities must be labeled or marked clearly with the words "Used Oil".

(2) Fill pipes used to transfer used oil into underground storage tanks at generator facilities must be clearly marked with the words "Used Oil".

(d) Response to releases. Upon detection of a release of used oil to the environment that is not subject to the requirements of APC&EC Regulation No. 12 or 40 CFR Part 280, subpart F and which has occurred after the effective date of the recycled used oil management program in effect in the State in which the release is located, a generator must perform the following cleanup steps:

- (1) Stop the release;
- (2) Contain the released used oil;
- (3) Clean up and manage properly the released used oil and other materials; and
- (4) If necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

§ 279.23 On-site burning in space heaters.

Generators may burn used oil in used oil-fired space heaters provided that:

(a) The heater burns only used oil that the owner or operator generates, or used oil received from household do-it-yourself used oil generators;

(b) The heater is designed to have a maximum capacity of not more than 0.5 million BTU per hour; and

(c) The combustion gases from the heater are vented to the ambient air.

§ 279.24 Off-site shipments.

Except as provided in paragraphs (a) through (c) of this section, generators must insure that their used oil is transported only by transporters who have obtained EPA Identification numbers.

(a) Self-transportation of small amounts to approved collection centers. Generators may transport, without an EPA identification number, used oil that is generated at the generator's site and used oil collected from household do-it-yourselfers to a used oil collection point provided that:

(1) The generator transports the used oil in a vehicle owned by the generator or owned by an employee of the generator;

(2) The generator transports no more than 55 gallons of used oil at any one time; and

(3) The generator transports the used oil to a used oil collection center that is registered, licensed, permitted, or recognized by a state, county, or local government to manage used oil.

(b) Self-transportation of small amounts to aggregation points owned by the generator. Generators may transport, without an EPA identification number, used oil that is generated at the generator's site to an aggregation point provided that:

(1) The generator transports the used oil in a vehicle owned by the generator or owned by an employee of the generator;

(2) The generator transports no more than 55 gallons of used oil at any one time; and

(3) The generator transports the used oil to an aggregation point that is owned and/or operated by the same generator.

(c) Tolling arrangements. Used oil generators may arrange for used oil to be transported by a transporter without an EPA identification number if the used oil is reclaimed under a contractual agreement pursuant to which reclaimed oil is returned by the processor/re-refiner to the generator for use as a lubricant, cutting oil, or coolant. The contract (known as a "tolling agreement") must indicate:

(1) The type of used oil and the frequency of shipments;

(2) That the vehicle used to transport the used oil to the processing/re-refining facility and to deliver

recycled used oil back to the generator is owned and operated by the used oil processor/re-refiner; and

(3) That reclaimed oil will be returned to the generator.

Subsection D – Standards for Used Oil Collection Centers and Aggregation Points

§ 279.30 Do-it-yourselfer used oil collection centers.

(a) Applicability. This section applies to owners or operators of all do-it-yourselfer (DIY) used oil collection centers. A DIY used oil collection center is any site or facility that accepts or aggregates and stores used oil collected from household do-it-yourselfers.

(b) DIY used oil collection center requirements. Owners or operators of all DIY used oil collection centers must comply with the generator standards in Subsection C of this Section.

§ 279.31 Used oil collection centers.

(a) Applicability. This section applies to owners and operators of used oil collection centers. A used oil collection center is any site or any facility that accepts or aggregates and stores used oil collected from used oil generators regulated under Subsection C of this Section who bring used oil to the collection center in shipment of no more than 55 gallons under the provisions of § 279.24(a). Used oil collection centers may also accept used oil from household do-it-yourselfers.

(b) Used oil collection center requirements. Owners or operators of all used oil collection centers must:

- (1) Comply with the generator standards in Subsection C of this Section; and
- (2) Be registered, licensed, permitted, or recognized by a state, county or municipal government to manage used oil¹.

§ 279.32 Used oil aggregation points owned by the generator.

(a) Applicability. This section applies to owners or operators of all used oil aggregation points. A used oil aggregation point is any site that accepts, aggregates, and/or stores used oil collected only from other used oil generation

1. For the purpose of complying with this section, a used oil collection center is considered to be "registered, licensed, permitted, or recognized" if (1) the center has an EPA identification number issued by the Department, and (2) the center has registered itself or made any necessary coordination with its local regional solid waste management district.

sites owned or operated by the owner or operator of the aggregation point, from which used oil is transported to the aggregation point in shipments of no more than 55 gallons under the provisions of § 279.24(b). Used oil aggregation points may also accept used oil from household do-it-yourselfers.

(b) Used oil aggregation point requirements. Owners or operators of all used oil aggregation points must comply with the generator standards in Subsection C of this Section.

Subsection E – Standards for Used Oil Transporter and Transfer Facilities

§ 279.40 Applicability.

(a) General. Except as provided in paragraphs (a)(1) through (a)(4) below, this Subsection applies to all used oil transporters. Used oil transporters are persons who transport used oil, persons who collect used oil from more than one generator and transport the collected oil, and owners and operators of used oil transfer facilities.

(1) This Subsection does not apply to on-site transportation.

(2) This Subsection does not apply to generators who transport shipments of used oil totalling 55 gallons or less from the generator to a used oil collection center as specified in § 279.24(a).

(3) This Subsection does not apply to generators who transport shipments of used oil totalling 55 gallons or less from the generator to a used oil aggregation point owned or operated by the same generator as specified in § 279.24(b).

(4) This Subsection does not apply to transportation of used oil from household do-it-yourselfers to a regulated used oil generator, collection center, aggregation point, processor/re-refiner, or burner subject to the requirements of this Section. Except as provided in paragraphs (a)(1) through (a)(3) above, this Subsection, however, *does* apply to transportation of collected household do-it-yourselfer used oil from regulated used oil generators, collection centers, aggregation points, or other facilities where household do-it-yourselfer used oil is collected.

(b) Imports and Exports. Transporters who import used oil from abroad or export used oil outside of the United States are subject to the requirements of this Subsection from the time the used oil enters and until the time it exits the United States.

(c) Trucks used to transport hazardous waste. Unless trucks and/or tankers previously used to transport hazardous waste are emptied as described in § 261.7 of this regulation ("RCRA empty") prior to transporting used oil, the used oil is considered to have been mixed with the hazardous waste and must be managed as hazardous waste unless, under the

provisions of § 279.10(b), the hazardous waste/used oil mixture is determined not to be hazardous waste.

(d) Other applicable provisions. Used oil transporters who conduct the following activities are also subject to other applicable provisions of this Section as indicated in paragraphs (d)(1) through (d)(5) of this section:

- (1) Transporters who generate used oil must also comply with Subsection C of this Section;
- (2) Transporters who process or re-refine used oil, except as provided in § 279.41, must also comply with Subsection F of this Section;
- (3) Transporters who burn off-specification used oil for energy recovery must also comply with Subsection G of this Section;
- (4) Transporters who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specification set forth at § 279.11 must also comply with Subsection H of this Section;
- (5) Transporters who dispose of used oil, including the uses of used oil as a dust suppressant, must also comply with Subsection I of this Section.

§ 279.41 Restrictions on transporters who are not also processors or re-refiners.

(a) Used oil transporters may consolidate or aggregate loads of used oil for purpose of transportation. However, except as provided in paragraph (b) of this section, used oil transporters may not process used oil unless they also comply with the requirements for processors and re-refiners in Subsection F of this Section.

(b) Transporters may conduct incidental processing operations the occur in the normal course of used oil transportation (e.g., settling and water separation), but that are not designed to produce (or make more amenable for production of) used oil derived products unless they also comply with the requirements for processors and re-refiners in Subsection F of this Section.

(c) Transporters of used oil that is removed from oil bearing electrical transformers and turbines and filtered by the transporter or at a transfer facility prior to being returned to its original use are not subject to the processor/re-refiner requirements in subsection F of this Section.

§ 279.42 Notification.

(a) Identification numbers. Used oil transporters who have not previously complied with the notification requirements of RCRA section 3010 must comply with these requirements and obtain an EPA identification number. *Used oil transporters that have previously notified the Department of hazardous waste and other used oil management activities and obtained a U.S. EPA Identification*

Number must renotify to identify their used oil transporter activities.

(b) Mechanics of notification. A used oil transporter who has not received an EPA identification number may obtain one by notifying the Director of their used oil activity by submitting a completed EPA Form 8700-12(AR-11-91R) (to obtain EPA Form 8700-12(AR-11-91R) call (501) 570-2872 or 570-2876).

§ 279.43 Used oil transportation.

(a) Deliveries. A used oil transporter must deliver all used oil received to:

- (1) Another used oil transporter, provided that the transporter has obtained an EPA identification number;
- (2) A used oil processing or re-refining facility which has obtained an EPA identification number;
- (3) An off-specification used oil burner facility which has obtained an EPA identification number;
- (4) An on-specification used oil burner facility.

(b) DOT Requirements. Used oil transporters must comply with all applicable packaging, labeling, and placarding requirements of the U.S. Department of Transportation (DOT) under 49 CFR Parts 171-180. Persons transporting used oil that meets the definition of a hazardous material in 49 CFR 171.8 must comply with all applicable regulations in 49 CFR Parts 171-180.

(c) Used oil discharges.

(1) In the event of a discharge of used oil during transportation, the transporter must take appropriate immediate action to protect human health and the environment (e.g., notify local authorities, dike the discharge area).

(2) If a discharge of used oil occurs during transportation and an official (State or local government, or a Federal agency) acting within the scope of official responsibilities determines that immediate removal of the used oil is necessary to protect human health and the environment, that official may authorize the removal of the used oil by transporters who do not have EPA identification numbers.

(3) An air, rail, highway, or water transporter who has discharged used oil must:

- (i) Give immediate notice to the Arkansas State Police and to the principal office or designated contact for the transporter.
- (ii) Give notice, if required by 49 CFR 171.15, to the National Response Center (800-424-8802 or 202-426-2675);
- (iii) Report in writing as required by 49 CFR 171.16 to the Director, Office of Hazardous Materials Regulations, Materials Transportation Bureau, Department of Transportation, Washington, DC 20590; and

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(iv) Submit a copy of the written report required by 49 CFR 171.16 and 263.30(c)(2) to ADPC&E simultaneously with its submission to the federal Department of Transportation.

(4) A water transporter who has discharged used oil must give the same notice as required by 33 CFR 153.203 for oil and hazardous substances.

(5) A transporter must clean up any used oil spill or discharge that occurs during transportation or take such action as may be required or approved by Federal, State, or local officials so that the used oil discharge no longer presents a hazard to human health or the environment.

§ 279.44 Rebuttable presumption for used oil.

(a) To insure that used oil is not a hazardous waste under the rebuttable presumption of § 279.10(b)(1)(ii), the used oil transporter must determine whether the total halogen content of used oil being transported or stored at a transfer facility is above or below 1,000 ppm.

(b) The transporter must make this determination by:

- (1) Testing the used oil; or
- (2) Applying knowledge of the halogen content of the used oil in light of the materials or processes used.

(c) If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in Subsection D of Section 261 of this regulation. The owner or operator may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example by showing that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in Appendix VIII of Section 261 of this regulation).

(1) The rebuttable presumption does not apply to metalworking oils or fluids containing chlorinated paraffins, if they are processed, through a tolling arrangement as described in § 279.24(c), to reclaim metalworking oils/fluids. The presumption *does* apply to metalworking oils and fluids if such oils and fluids are recycled in any other manner or disposed.

(2) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption *does* apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(d) Record retention. Records of analyses conducted or information used to comply with paragraphs (a), (b), and (c) above must be maintained by the transporter for at least three years.

§ 279.45 Used oil storage at transfer facilities.

Used oil transporters are subject to all applicable federal Spill Prevention, Control, and Countermeasures (40 CFR Part 112) in addition to the requirements of this Subsection. Used oil transporters and transfer facilities are also subject to the Underground Storage Tank (40 CFR Part 280; APC&EC Regulation No. 12) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this Subsection.

(a) Applicability. This section applies to used oil transfer facilities. Used oil transfer facilities are transportation related facilities including loading docks, parking areas, storage areas, and other areas where shipment of used oil are held for more than 24 hours during the normal course of transportation and not longer than 35 days. Transfer facilities that store used oil for more than 35 days are subject to regulation under Subsection F of this Section.

(b) Storage units. Owners or operators of used oil transfer facilities may not store used oil in units other than tanks, containers, or units subject to regulation under Sections 264 and 265 of this regulation.

(c) Condition of units. Containers and aboveground tanks used to store used oil at generator facilities must be:

- (1) In good condition (no severe rusting, apparent structural defects, or deterioration); and
- (2) Not leaking (no visible leaks).

(d) Secondary containment for containers. Containers used to store used oil at transfer facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, as a minimum:

- (i) Dikes, berms, or retaining walls; and
- (ii) A floor. The floor must cover the entire area within the dikes, berm, or retaining walls; or
- (iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(e) Secondary containment for existing aboveground tanks. Existing aboveground tanks used to store used oil at transfer facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, as a minimum:

- (i) Dikes, berms, or retaining walls; and
- (ii) A floor. The floor must cover the entire area within the dikes, berm, or retaining walls except areas where existing portions of the tank meet the ground; or
- (iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(f) Secondary containment for new aboveground tanks. New aboveground tanks used to store used oil at transfer facilities must be equipped with a secondary containment system.

(1) The secondary containment system must consist of, as a minimum:

- (i) Dikes, berms, or retaining walls; and
- (ii) A floor. The floor must cover the entire area within the dikes, berm, or retaining walls; or
- (iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(g) Labels.

(1) Containers and aboveground tanks used to store used oil at transfer facilities must be labeled or marked clearly with the words "Used Oil".

(2) Fill pipes used to transfer used oil into underground storage tanks at transfer facilities must be clearly marked with the words "Used Oil".

(h) Response to releases. Upon detection of a release of used oil to the environment that is not subject to the requirements of APC&EC Regulation No. 12 or 40 CFR Part 280, subpart F and which has occurred after the effective date of the recycled used oil management program in effect in the State in which the release is located, the owner/operator of a transfer facility must perform the following cleanup steps:

- (1) Stop the release;
- (2) Contain the released used oil;
- (3) Clean up and manage properly the released used oil and other materials; and
- (4) If necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

§ 279.46 Tracking.

(a) Acceptance. Used oil transporters must keep a record of each used oil shipment accepted for transport. Records for each shipment must include:

- (1) The name and address of the generator, transporter, or processor/re-refiner who provided the used oil for transport;
- (2) The EPA identification number (if applicable) of the generator, transporter, or processor/re-refiner who provided the used oil for transport;
- (3) The quantity of used oil accepted;

(4) The date of acceptance; and

(5) (i) Except as provided in paragraph (a)(5)(ii) of this section, the signature, dated upon receipt of the used oil, of a representative of the generator, transporter, or processor/re-refiner who provided the used oil for transport.

(ii) Intermediate rail transporters are not required to sign the record of acceptance.

(b) Deliveries. Used oil transporters must keep a record of each shipment of used oil that is delivered to another used oil transporter, or to a used oil burner, processor/re-refiner, or disposal facility. Records of each delivery must include:

- (1) The name and address of the receiving facility or transporter;
- (2) The EPA identification number of the receiving facility or transporter;
- (3) The quantity of used oil delivered;
- (4) The date of delivery; and

(5) (i) Except as provided in paragraph (b)(5)(ii) of this section, the signature, dated upon receipt of the used oil, of a representative of the receiving facility or transporter.

(ii) Intermediate rail transporters are not required to sign the record of delivery.

(c) Exports of used oil. Used oil transporters must maintain the records described in paragraphs (b)(1) through (b)(4) above for each shipment of used oil exported to any foreign country.

(d) Records retention. The records described in paragraphs (a) through (c) above must be maintained for at least three years.

§ 279.47 Management of residues.

Transporters who generate residues from the storage or transport of used oil must manage the residues as specified in § 279.10(e).

Subsection F – Standards for Used Oil Processors and Re-refiners

§ 279.50 Applicability.

(a) The requirements of this Subsection apply to owners and operators of facilities that process used oil. Processing means chemical or physical operations designed to produce from used oil, or to make used oil more amenable for production of, fuel oils, lubricants, or other used-oil derived products. Processing includes, but is not limited to, blending used oil with virgin petroleum products, blending used oils to meet the fuel specification, filtration, simple distillation, chemical or physical separation, and re-refining. The requirements of this Subsection do not apply to

- (1) Transporters that conduct incidental

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processing operations during the normal course of transportation as provided in § 279.41;

(2) Burners that conduct incidental processing operations that occur during the normal course of used oil management prior to burning as provided in § 279.61(b).

(b) Other applicable provisions. Used oil processors/re-refiners who conduct the following activities are also subject to the requirements of other applicable provisions of this part as indicated in paragraphs (b)(1) through (b)(5) below:

(1) Processors/re-refiners who generate used oil must also comply with Subsection C of this Section.

(2) Processors/re-refiners who transport used oil must also comply with Subsection E of this part.

(3) Except as provided in paragraphs (b)(3)(i) and (b)(3)(ii) below, processors/re-refiners who burn off-specification used oil for energy recovery must also comply with Subsection G of this Section. Processors/re-refiners burning used oil for recovery under the following conditions are not subject to Subsection G of this part:

(i) The used oil is burned in an on-site space heater that meets the requirements of § 279.23; or

(ii) The used oil is burned for purposes of processing used oil, which is considered burning incidentally to used oil processing.

(4) Processors/re-refiners who direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in § 279.11 must also comply with Subsection H of this Section; and

(5) Processors/re-refiners who dispose of used oil, including the use of used oil as a dust suppressant, must also comply with Subsection I of this part.

§ 279.51 Notification.

(a) Identification numbers. Used oil processors and re-refiners who have not previously complied with the notification requirements of RCRA section 3010 must comply with these requirements and obtain an EPA identification number. *Used oil processors/re-refiners that have previously notified the Department of hazardous waste and other used oil management activities and obtained a U.S. EPA Identification Number must renotify to identify their used oil processor/re-refiner activities.*

(b) Mechanics of notification. A used oil processor or re-refiner who has not received an EPA identification number may obtain one by notifying the Director of their used oil activity by submitting a completed EPA Form 8700-12(AR-11-91R) (to obtain EPA Form 8700-12(AR-11-91R) call (501) 570-2872 or 570-2876).

§ 279.52 General facility standards.

(a) Preparedness and prevention. Owners and operators of used oil processing and re-refining facilities must comply with the following requirements:

(1) Maintenance and operation of facility. Facilities must be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of used oil to air, soil, or surface water which could threaten human health or the environment.

(2) Required equipment. All facilities must be equipped with the following, unless none of the hazards posed by used oil at the facility could require a particular kind of equipment specified in paragraphs (a)(2)(i) through (iv) below:

(i) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to emergency personnel;

(ii) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams;

(iii) Portable fire extinguishers, fire control equipment (including special extinguishing equipment such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and

(iv) Water at adequate volume and pressure to supply hose streams, or foam-producing equipment, or automatic sprinklers, or water spray systems.

(3) Testing and maintenance of equipment. All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency.

(4) Access to communications or alarm system.

(i) Whenever used oil is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communications device, either directly or through visual or voice contact with another employee, unless such a device is not required in paragraph (a)(2) of this section.

(ii) If there is ever just one employee on the premise while the facility is operating, that employee must have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-

held two-way radio, capable of summoning external emergency assistance, unless such a device is not required in paragraph (a)(2) of this section.

(5) Required aisle space. The owner or operator must maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not need for any of these purposes.

(6) Arrangements with local authorities.

(i) The owner or operator must attempt to make the following arrangements, as appropriate for the type of used oil handled at his facility and the potential need for the services of these organizations:

(A) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of used oil handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to and roads inside the facility, and possible evacuation routes;

(B) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

(C) Agreements with State emergency response teams, emergency response contractors, and equipment suppliers; and

(D) Arrangements to familiarize local hospitals with the properties of used oil handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

(ii) Where State or local authorities decline to enter into such arrangements, the owner or operator must document the refusal in the operating record.

(b) Contingency plan and emergency procedures. Owners and operators of used oil processing and re-refining facilities must comply with the following requirements:

(1) Purpose and implementation of contingency plan.

(i) Each owner or operator must have a contingency plan for his facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of

used oil to air, soil, or surface water.

(ii) The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of used oil which could threaten human health or the environment.

(2) Content of contingency plan.

(i) The contingency plan must describe the actions facility personnel must take to comply with paragraphs (b)(1) and (6) of this section in response to fires, explosions, or any unplanned sudden or non-sudden release of used oil to air, soil, or surface water at the facility.

(ii) If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR Part 112, or 40 CFR Part 1510, or some other emergency or contingency plan, he need only amend that plan to incorporate used oil management provisions that are sufficient to comply with the requirements of this section.

(iii) The plan must describe arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to paragraph (a)(6) above.

(iv) The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator, and this list must be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates.

(v) The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(vi) The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of used oil or fires).

(3) Copies of contingency plan. A copy of the

contingency plan and all revisions to the plan must be:

- (i) Maintained at the facility; and
 - (ii) Submitted to all local police departments, fire departments, hospitals, and State and local emergency response teams that may be called upon to provide emergency services.
- (4) Amendment of contingency plan. The contingency plan must be reviewed, and immediately amended, if necessary, whenever:
- (i) Applicable regulations are revised;
 - (ii) The plan fails in an emergency;
 - (iii) The facility changes — in its design, construction, operation, maintenance, or other circumstances — in a way that materially increases the potential for fires, explosions, or releases of used oil, or changes the response necessary in an emergency;
 - (iv) The list of emergency coordinators changes; or
 - (v) The list of emergency equipment changes.
- (5) Emergency coordinator. At all times, there must be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan.

[Guidance: The emergency coordinator's responsibilities are more fully spelled out in paragraph (b)(6) below. Applicable responsibilities for the emergency coordinator vary, depending on factors such as type and variety of used oil handled by the facility, and type and complexity of the facility.]

- (6) Emergency procedures.
- (i) Whenever there is an imminent or actual emergency situation, the emergency coordinator (or his designee when the emergency coordinator is on call) must immediately:
 - (A) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and
 - (B) Notify appropriate State or local agencies with designated response roles if their help is needed.
 - (ii) Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and areal extent of any released materials. He may do this by observation or review of facility records or manifests, and, if necessary, by chemical

analyses.

(iii) Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-off from water or chemical agents used to control fire and heat-induced explosions).

(iv) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, he must report his findings as follows:

(A) If his assessment indicates that evacuation of local areas may be advisable, he must immediately notify appropriate local authorities. He must be available to help appropriate officials decide whether local areas should be evacuated; and

(B) He must immediately notify either the government official designated as the on-scene coordinator for that geographical area, (in the applicable regional contingency plan under part 1510 of this title) or the National Response Center (using their 24-hour toll free number 800/424-8802). The report must include:

- (1) Name and telephone number of reporter;
- (2) Name and address of facility;
- (3) Time and type of incident (e.g., release, fire);
- (4) Name and quantity of material(s) involved, to the extent known;
- (5) The extent of injuries, if any; and
- (6) The possible hazards to human health, or the environment, outside the facility.

(v) During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other used oil at the facility. These measures must include, where applicable, stopping processes and operations, collecting and containing released used oil, and removing or isolating containers.

(vi) If the facility stops operations in response to a fire, explosion, or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves,

pipes, or other equipment, wherever this is appropriate.

(vii) Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered used oil, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

(viii) The emergency coordinator must ensure that, in the affected area(s) of the facility:

(A) No waste or used oil that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and

(B) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(C) The owner or operator must notify the Director, and appropriate State and local authorities, that the facility is in compliance with paragraphs (b)(6)(viii) A and B of this section before operations are resumed in the affected area(s) of the facility.

(ix) The owner or operator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, he must submit a written report on the incident to the Director. The report must include:

(A) Name, address, and telephone number of the owner or operator;

(B) Name, address, and telephone number of the facility;

(C) Date, time, and type of incident (e.g., fire, explosion);

(D) Name and quantity of material(s) involved;

(E) The extent of injuries, if any;

(F) An assessment of actual or potential hazards to human health or the environment, where this is applicable; and

(G) Estimated quantity and disposition of recovered material that resulted from the incident.

§ 279.53 Rebuttable presumption for used oil.

(a) To insure that used oil is not a hazardous waste under the rebuttable presumption of § 279.10(b)(1)(ii), the owner or operator of a used oil processing or re-refining facility must determine whether the total halogen content of used oil managed at the facility is above or below 1,000 ppm.

(b) The owner or operator must make this determination by:

(1) Testing the used oil; or

(2) Applying knowledge of the halogen content of the used oil in light of the materials or processes used.

(c) If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in Subsection D of Section 261 of this regulation. The owner or operator may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example, by showing that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in Appendix VIII of Section 261 of this regulation).

(1) The rebuttable presumption does not apply to metalworking oils or fluids containing chlorinated paraffins, if they are processed, through a tolling arrangement as described in § 279.24(c), to reclaim metalworking oils/fluids. The presumption *does* apply to metalworking oils and fluids if such oils and fluids are recycled in any other manner or disposed.

(2) The rebuttable presumption does not apply to used oils contaminated with chlorofluorocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption *does* apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

§ 279.54 Used oil management.

Used oil processors/re-refiners are subject to all applicable federal Spill Prevention, Control, and Countermeasures (40 CFR Part 112) in addition to the requirements of this Subsection. Used oil processors/re-refiners are also subject to the Underground Storage Tank (40 CFR Part 280; APC&EC Regulation No. 12) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this Subsection.

(a) Management units. Used oil processors/re-refiners may not store used oil in units other than tanks, containers, or units subject to regulation under Sections 264 and 265 of this regulation.

(b) Condition of units. Containers and aboveground tanks used to store or process used oil at processing and re-refining facilities must be:

(1) In good condition (no severe rusting, apparent structural defects, or deterioration); and

(2) Not leaking (no visible leaks).

(c) Secondary containment for containers. Containers used to store or process used oil at processing and re-refining facilities must be equipped with a secondary containment

system.

- (1) The secondary containment system must consist of, as a minimum:
 - (i) Dikes, berms, or retaining walls; and
 - (ii) A floor. The floor must cover the entire area within the dikes, berm, or retaining walls; or
 - (iii) An equivalent secondary containment system.
 - (2) The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.
- (d) Secondary containment for existing aboveground tanks. Existing aboveground tanks used to store or process used oil at processing and re-refining facilities must be equipped with a secondary containment system.
- (1) The secondary containment system must consist of, as a minimum:
 - (i) Dikes, berms, or retaining walls; and
 - (ii) A floor. The floor must cover the entire area within the dikes, berm, or retaining walls except areas where existing portions of the tank meet the ground; or
 - (iii) An equivalent secondary containment system.
 - (2) The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.
- (e) Secondary containment for new aboveground tanks. New aboveground tanks used to store or process used oil at processing and re-refining facilities must be equipped with a secondary containment system.
- (1) The secondary containment system must consist of, as a minimum:
 - (i) Dikes, berms, or retaining walls; and
 - (ii) A floor. The floor must cover the entire area within the dikes, berm, or retaining walls; or
 - (iii) An equivalent secondary containment system.
 - (2) The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.
- (f) Labels.
- (1) Containers and aboveground tanks used to store or process used oil at processing and re-refining facilities must be labeled or marked clearly with the words "Used Oil".
 - (2) Fill pipes used to transfer used oil into underground storage tanks at processing and re-refining facilities must be clearly marked with the

words "Used Oil".

(g) Response to releases. Upon detection of a release of used oil to the environment that is not subject to the requirements of APC&EC Regulation No. 12 or 40 CFR Part 280, subpart F and which has occurred after the effective date of the recycled used oil management program in effect in the State in which the release is located, an owner/operator must perform the following cleanup steps:

- (1) Stop the release;
 - (2) Contain the released used oil;
 - (3) Clean up and manage properly the released used oil and other materials; and
 - (4) If necessary, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.
- (h) Closure.
- (1) Aboveground tanks. Owners and operators who store or process used oil in aboveground tanks must comply with the following requirements:
 - (i) At closure of a tank system, the owner or operator must remove or decontaminate used oil residues in tanks, contaminated containment system components, contaminated soils, and structures and equipment contaminated with used oil, and manage them as a hazardous waste, unless the materials are not hazardous waste under this Section.
 - (ii) If the owner or operator demonstrates that not all contaminated soils can be practicably removed or decontaminated as required in paragraph (i) above, then the owner or operator must close the tank system and perform post-closure care in accordance with the closure and post-closure care requirements that apply to hazardous waste landfills (§ 265.310 of this regulation).
 - (2) Containers. Owners and operators who store or process used oil in containers must comply with the following requirements:
 - (i) At closure, containers holding used oils or residues of used oil must be removed from the site;
 - (ii) The owner or operator must remove or decontaminate used oil residues, contaminated containment system components, contaminated soils, and structures and equipment contaminated with used oil, and manage them as hazardous waste, unless the materials are not hazardous wastes under Section 261 of this regulation.

§ 279.55 Analysis plan.

Owners and operators of used oil processing and re-refining facilities must develop and follow a written analysis plan that will be used to comply with the analysis requirements

of § 279.53 and, if applicable, § 279.72. The owner or operator must keep the plan at the facility.

(a) Rebuttable presumption for used oil in § 279.53. At a minimum, the plan must specify the following:

(1) Whether sample analyses or knowledge of the halogen content of the used oil will be used to make this determination.

(2) If sample analyses are used to make this determination:

(i) The sampling method used to obtain representative samples to be analyzed. A representative sample may be obtained using either:

(A) One of the sampling methods listed in Appendix I to Section 261 of this regulation; or

(B) A method shown to be equivalent under §§ 260.20 and 260.21 of this regulation.

(ii) The frequency of sampling to be performed, and whether the analysis will be performed on-site or off-site; and

(iii) The methods used to analyze used oil for the parameters specified in § 279.53; and

(3) The type of information that will be used to determine the halogen content of the used oil.

(b) On-specification used oil fuel in § 279.72. At a minimum, the plan must specify the following if § 279.72 is applicable:

(1) Whether sample analyses or other information will be used to make this determination.

(2) If sample analyses are used to make this determination:

(i) The sampling method used to obtain representative samples to be analyzed. A representative sample may be obtained using either:

(A) One of the sampling methods listed in Appendix I to Section 261 of this regulation; or

(B) A method shown to be equivalent under §§ 260.20 and 260.21 of this regulation.

(ii) Whether used oil will be sampled and analyzed prior to or after any processing or re-refining;

(iii) The frequency of sampling to be performed, and whether the analysis will be performed on-site or off-site; and

(iv) The methods used to analyze used oil for the parameters specified in § 279.72; and

(3) The type of information that will be used to make the on-specification used oil fuel determination.

§ 279.56 Tracking.

(a) Acceptance. Used oil processors/re-refiners must keep a record of each used oil shipment accepted for processing or re-refining. These records may take the form of a log, invoice, manifest, bill of lading, or other shipping documents. Records for each shipment must include the following information:

(1) The name and address of the transporter, or processor/re-refiner who delivered the used oil to the processor/re-refiner;

(2) The name and address of the generator or processor/re-refiner from whom the used oil was shipped for processing/re-refining;

(3) The EPA identification number of the transporter who delivered the used oil to the processor/re-refiner;

(4) The EPA identification number (if applicable) of the generator or processor/re-refiner from whom the used oil was shipped for processing/re-refining;

(5) The quantity of used oil accepted;

(6) The date of acceptance.

(b) Delivery. Used oil processors/re-refiners must keep a record of each shipment of used oil that is shipped to a used oil burner, processor/re-refiner, or disposal facility. These records may take the form of a log, invoice, manifest, bill of lading, or other shipping documents. Records for each shipment must include the following information:

(1) The name and address of the transporter who delivers the used oil to the burner, processor/re-refiner or disposal facility;

(2) The name and address of the burner, processor/re-refiner or disposal facility which will receive the used oil;

(3) The EPA identification number of the transporter who delivers the used oil to the burner, processor/re-refiner or disposal facility;

(4) The EPA identification number of the burner, processor/re-refiner or disposal facility which will receive the used oil;

(5) The quantity of used oil shipped; and

(6) The date of shipment.

(c) Records retention. The records described in paragraphs (a) through (c) above must be maintained for at least three years.

§ 279.57 Operating record and reporting.

(a) Operating record.

(1) The owner or operator must keep a written operating record at the facility.

(2) The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility:

(i) Records and results of used oil analyses performed as described in the analysis plan

under § 279.55; and

(ii) Summary reports and details of all incidents that require implementation of the contingency plan as specified in § 279.52(b).

(b) Reporting. A used oil processor/re-refiner must report to the Director, in the form of a letter, on an annual basis (by March 1 of each calendar year), the following information concerning used oil activities during the previous calendar year:

- (1) The EPA identification number, name, and address of the processor/re-refiner;
- (2) The calendar year covered by the report; and
- (3) The quantities of used oil accepted for processing or re-refining and the manner in which the used oil is processed or re-refined, including the specific processes employed.

§ 279.58 Off-site shipments of used oil.

Used oil processors and re-refiners who initiate shipments of used oil off-site must ship the used oil using a used oil transporter who has obtained an EPA identification number.

§ 279.59 Management of residues.

Owners and operators who generate residues from the storage, processing, or re-refining of used oil must manage the residues as specified in § 279.10(e).

Subsection G – Standards for Used Oil Burners Who Burn Off-specification Used Oil for Energy Recovery

§ 279.60 Applicability.

(a) General. The requirements of this Subsection apply to used oil burners except as specified in paragraphs (a)(1) and (a)(2) below. A used oil burner is a facility where used oil not meeting the specification requirements at § 279.11 is burned for energy recovery in devices identified in § 279.61(a). Facilities burning used oil for energy recovery under the following conditions are not subject to this Subsection:

- (1) The used oil is burned by the generator in an on-site space heater under the provisions of § 279.23; or
- (2) The used oil is burned by a processor/re-refiner for purposes of processing used oil, which is considered burning incidentally to used oil processing.

(b) Other applicable provisions. Used oil burners who conduct the following activities are also subject to the requirements of other applicable provisions of this part as indicated in paragraphs (b)(1) through (b)(5) below:

(1) Burners who generate used oil must also comply with Subsection C of this Section.

(2) Burners who transport used oil must also comply with Subsection E of this Section.

(3) Except as provided in § 279.61(b), burners who process or re-refine used oil must also comply with Subsection F of this Section;

(4) Burners direct shipments of off-specification used oil from their facility to a used oil burner or first claim that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in § 279.11 must also comply with Subsection H of this Section; and

(5) Burners who dispose of used oil, including the use of used oil as a dust suppressant, must also comply with Subsection I of this Section.

(c) Specification fuel. This Subsection does not apply to persons burning used oil that meets the used oil fuel specification of § 279.11, provided that the burner complies with the requirements of Subsection H of this Section.

§ 279.61 Restrictions on burning.

(a) Off-specification used oil fuel may be burned for energy recovery in only the following devices:

- (1) Industrial furnaces identified in § 260.10 of this regulation;
- (2) Boilers, as defined in § 260.10 of this regulation, that are identified as follows:
 - (i) Industrial boilers located on the site of a facility engaged in a manufacturing process where substances are transformed into new products, including the component parts of products, by mechanical or chemical processes;
 - (ii) Utility boilers used to produce electric power, steam, heated or cooled air, or other gases or fluids for sale; or
 - (iii) Used oil-fired space heaters provide the burner meets the provisions of § 279.23; or
- (3) Hazardous waste incinerators subject to regulation under Subsection O of Sections 264 or 265 of this regulation.

(b)(1) With the following exception, used oil burners may not process used oil unless they also comply with the requirements of Subsection F of this Section.

(2) Used oil burners may aggregate off-specification used oil with virgin oil or on-specification used oil for purposes of burning, but may not aggregate for purposes of producing on-specification used oil.

§ 279.62 Notification.

(a) Identification numbers. Used oil burners that have not previously notified the Department of their used oil burning activities must notify the Department to identify these activities. *Even if a used oil burner has previously notified the Department or EPA of hazardous waste management activities under section 3010 of RCRA and obtained an identification number, the used oil fuel burner must renotify to identify used oil burning activities.*

(b) Mechanics of notification. A used oil burner who has not received an EPA identification number may obtain one by notifying the Director of their used oil activity by submitting a completed EPA Form 8700-12.

§ 279.63 Rebuttable presumption for used oil.

(a) To insure that used oil managed at a used oil burner facility is not a hazardous waste under the rebuttable presumption of § 279.10(b)(1)(ii), a used oil burner must determine whether the total halogen content of used oil managed at the facility is above or below 1,000 ppm.

(b) The used oil burner must make this determination by:

- (1) Testing the used oil; or
- (2) Applying knowledge of the halogen content of the used oil in light of the materials or processes used.
- (3) If the used oil has been received from a processor/refiner subject to regulation under subsection F of this Section, using information provided by the processor/re-refiner.

(c) If the used oil contains greater than or equal to 1,000 ppm total halogens, it is presumed to be a hazardous waste because it has been mixed with halogenated hazardous waste listed in Subsection D of Section 261 of this regulation. The owner or operator may rebut this presumption by demonstrating that the used oil does not contain hazardous waste (for example, by showing that the used oil does not contain significant concentrations of halogenated hazardous constituents listed in Appendix VIII of Section 261 of this regulation).

(1) The rebuttable presumption does not apply to metalworking oils or fluids containing chlorinated paraffins, if they are processed, through a tolling arrangement as described in § 279.24(c), to reclaim metalworking oils/fluids. The presumption *does* apply to metalworking oils and fluids if such oils and fluids are recycled in any other manner or disposed.

(2) The rebuttable presumption does not apply to used oils contaminated with chloroflourocarbons (CFCs) removed from refrigeration units where the CFCs are destined for reclamation. The rebuttable presumption *does* apply to used oils contaminated with CFCs that have been mixed with used oil from sources other than refrigeration units.

(d) Records retention. Records of analyses conducted

or information used to comply with paragraphs (a), (b), and (c) of this subsection must be maintained by the burner for at least three years.

§ 279.64 Used oil storage.

Used oil burners are subject to all applicable federal Spill Prevention, Control, and Countermeasures (40 CFR Part 112) in addition to the requirements of this Subsection. Used oil burners are also subject to the Underground Storage Tank (40 CFR Part 280; APC&EC Regulation No. 12) standards for used oil stored in underground tanks whether or not the used oil exhibits any characteristics of hazardous waste, in addition to the requirements of this Subsection.

(a) Storage units. Used oil burners may not store used oil in units other than tanks, containers, or units subject to regulation under Sections 264 and 265 of this regulation.

(b) Condition of units. Containers and aboveground tanks used to store used oil at burner facilities must be:

- (1) In good condition (no severe rusting, apparent structural defects, or deterioration); and
- (2) Not leaking (no visible leaks).

(c) Secondary containment for containers. Containers used to store used oil at burner facilities must be equipped with a secondary containment system.

- (1) The secondary containment system must consist of, as a minimum:
 - (i) Dikes, berms, or retaining walls; and
 - (ii) A floor. The floor must cover the entire area within the dikes, berm, or retaining walls.
- (2) The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(d) Secondary containment for existing aboveground tanks. Existing aboveground tanks used to store used oil at burner facilities must be equipped with a secondary containment system.

- (1) The secondary containment system must consist of, as a minimum:
 - (i) Dikes, berms, or retaining walls; and
 - (ii) A floor. The floor must cover the entire area within the dikes, berm, or retaining walls except areas where existing portions of the tank meet the ground; or
 - (iii) An equivalent secondary containment system.
- (2) The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(e) Secondary containment for new aboveground tanks. New aboveground tanks used to store used oil at burner facilities must be equipped with a secondary containment

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system.

(1) The secondary containment system must consist of, as a minimum:

- (i) Dikes, berms, or retaining walls; and
- (ii) A floor. The floor must cover the entire area within the dikes, berm, or retaining walls; or
- (iii) An equivalent secondary containment system.

(2) The entire containment system, including walls and floors, must be sufficiently impervious to used oil to prevent any used oil released into the containment system from migrating out of the system to the soil, groundwater, or surface water.

(f) Labels.

(1) Containers and aboveground tanks used to store used oil at burner facilities must be labeled or marked clearly with the words "Used Oil".

(2) Fill pipes used to transfer used oil into underground storage tanks at burner facilities must be clearly marked with the words "Used Oil".

(g) Response to releases. Upon detection of a release of used oil to the environment not subject to the requirements of APC&EC Regulation No. 12 or 40 CFR Part 280, subpart F which has occurred after the effective date of this Section, a burner must perform the following cleanup steps:

- (1) Stop the release;
- (2) Contain the released used oil;
- (3) Clean up and properly manage the released used oil and other materials; and
- (4) If necessary to prevent future releases, repair or replace any leaking used oil storage containers or tanks prior to returning them to service.

§ 279.65 Tracking.

(a) Acceptance. Used oil burners must keep a record of each used oil shipment accepted for burning. These records may take the form of a log, invoice, manifest, bill of lading, or other shipping documents. Records for each shipment must include the following information:

- (1) The name and address of the transporter, or processor/re-refiner who delivered the used oil to the burner;
- (2) The name and address of the generator or processor/re-refiner from whom the used oil was shipped for burning;
- (3) The EPA identification number of the transporter who delivered the used oil to the burner;
- (4) The EPA identification number (if applicable) of the generator or processor/re-refiner from whom the used oil was shipped for burning;
- (5) The quantity of used oil accepted;
- (6) The date of acceptance.

(b) Records retention. The records described in paragraphs (a) through (c) above must be maintained for at

least three years.

§ 279.66 Notices.

(a) Certification. Before a burner accepts the first shipment of off-specification used oil fuel from a generator, transporter, or processor/re-refiner, the burner must provide to the generator, transporter, or processor/re-refiner a one-time written and signed notice certifying that:

(1) The burner has notified the Department stating the location and general description of his used oil management activities; and

(2) The burner will burn the off-specification used oil only in an industrial furnace or boiler identified in § 279.61(a).

(b) Certificate retention. The certification required in paragraph (a) above must be maintained for three years from the date the burner last receives shipment of off-specification used oil fuel from a generator, transporter, or processor/re-refiner.

§ 279.67 Management of residues.

Burners who generate residues from the storage or burning of used oil must manage the residues as specified in § 279.10(e).

Subsection H – Standards for Used Oil Fuel Marketers

§ 279.70 Applicability.

(a) Any person who conducts either of the following activities is subject to the requirements of this Subsection:

- (1) Directs a shipment of off-specification used oil from their facility to a used oil burner, or
- (2) First claims that used oil that is to be burned for energy recovery meets the used oil fuel specifications set forth in § 279.11.

(b) The following persons are not marketers subject to this Subsection:

- (1) Used oil generators, and transporters who transport used oil received only from generators, unless the generator or transporter directs a shipment of off-specification used oil from their facility to a used oil burner. However, processors or re-refiners who burn some used oil fuel for the purpose of processing are considered to be burning incidentally to processing. Thus, generators and transporters who direct shipments of off-specification used oil to processors or re-refiners who incidentally burn that used oil are not marketers subject to this Subsection.
- (2) Persons who direct shipments of on-

specification used oil and who are not the first person to first claim the used oil meets the used oil fuel specifications of § 279.11.

(c) Any person subject to the requirements of this Subsection must also comply with one of the following:

- (1) Subsection C of this Section - Standards for Used Oil Generators;
- (2) Subsection E of this Section - Standards for Used Oil Transporters and Transfer Facilities;
- (3) Subsection F of this Section - Standards for Used Oil Processors and Re-refiners;
- (4) Subsection G of this Section - Standards for Used Oil Burners who Burn Off-specification Used Oil for Energy Recovery.

§ 279.71 Prohibitions.

A used oil fuel marketer may initiate a shipment of off-specification used oil fuel only to a used oil burner who:

- (a) Has an EPA identification number; and
- (b) Burns the used oil in an industrial furnace or boiler identified in § 279.61(a).

§ 279.72 On-specification used oil fuel.

(a) Analysis of used oil fuel. A generator, transporter, processor, re-refiner, or burner may determine that used oil that is to be burned for energy recovery meets the fuel specifications of § 279.11 by performing analyses or obtaining copies of other information documenting that the used oil meets the specifications.

(b) Records retention. A generator, transporter, processor, re-refiner, or burner who first claims that used oil that is to be burned for energy recovery meets the used oil fuel specifications of § 279.11 must keep copies of analyses of the used oil (or other information used to make the determination) for three years.

§ 279.73 Notification.

(a) A used oil fuel marketer subject to the requirements of this subsection who has not previously notified the Department of their used oil fuel marketing activities must notify EPA of their used oil fuel marketing activities. *Even if a used oil fuel marketer has previously notified the Department or EPA of hazardous waste management activities under section 3010 of RCRA and obtained an identification number, the used oil fuel marketer must renotify the Department to identify used oil fuel marketing activities.*

(b) A used oil marketer who has not received an EPA identification number may obtain one by notifying the Director of their used oil activity by submitting a completed EPA Form 8700-12(AR-11-91R) (to obtain EPA Form 8700-

12(AR-11-91R) call (501) 570-2872 or 570-2876).

§ 279.74 Tracking.

(a) Any used oil fuel marketer who directs a shipment of off-specification used oil to a burner must keep a record of each shipment of used oil to a used oil burner. These records may take the form of a log, invoice, manifest, bill of lading, or other shipping documents. Records for each shipment must include the following information:

- (1) The name and address of the transporter who delivers the used oil to the burner;
- (2) The name and address of the burner who will receive the used oil;
- (3) The EPA identification number of the transporter who delivers the used oil to the burner;
- (4) The EPA identification number of the burner;
- (5) The quantity of used oil shipped;
- (6) The date of shipment.

(b) On-specification used oil delivery. A generator, transporter, processor, re-refiner, or burner who first claims that used oil that is to be burned for energy recovery meets the used oil fuel specifications of § 279.11 must keep a record of each shipment of used oil to an on-specification used oil burner. These records may take the form of a log, invoice, manifest, bill of lading, or other shipping documents. Records for each shipment must include the following information:

- (1) The name and address of the facility receiving the shipment;
- (2) The quantity of used oil fuel delivered;
- (3) The date of shipment or delivery; and
- (4) A cross-reference to the record of used oil analysis or other information used to make the determination that the oil meets the specification as required under § 279.11.

(c) Records retention. The records described in paragraphs (a) and (b) above must be maintained for at least three years.

§ 279.75 Notices.

(a) Certification. Before a used oil generator, transporter, processor, or re-refiner directs the first shipment of off-specification used oil fuel to a burner, he must obtain a one-time written and signed notice from the burner certifying that:

- (1) The burner has notified the Department stating the location and general description of his used oil management activities; and
- (2) The burner will burn the off-specification used oil only in an industrial furnace or boiler identified in § 279.61(a).

(b) Certificate retention. The certification required in paragraph (a) above must be maintained for three years from the date the last shipment of off-specification used oil is

shipped to the burner.

Subsection I – Standards for Use as a Dust Suppressant and Disposal of Used Oil

§ 279.80 Applicability.

The requirements of this Subsection apply to all used oils that are not or cannot be recycled and are therefore being disposed.

§ 279.81 Disposal.

(a) Disposal of hazardous used oils. Used oils that are identified as a hazardous waste and/or cannot be recycled in accordance with this Section must be managed in accordance with the hazardous waste management requirements of Sections 260 through 270 of this regulation.

(b) Disposal of nonhazardous used oils. Used oils that are not hazardous wastes and cannot be recycled under this Section must be disposed in accordance with the requirements of APC&EC Regulation No. 22 (Solid Waste Management) and 40 CFR Parts 257 and 258.

§ 279.82 Use as a dust suppressant.

(a) Except as provided below, the use of used oil as a dust suppressant is prohibited.

(b) *Persons desiring to use used oil for dust suppression must first petition the EPA Administrator to allow the use of the used oil (that is not mixed with any hazardous waste and does not exhibit any characteristic of a hazardous waste) as a dust suppressant. A copy of this petition must be provided to the Director.*

(c) *Upon approval of the dust suppressant petition by the EPA Administrator, the petitioner must apply, using a Special Waste Disposal Request, to the Director for approval of use of specified lots of used oil as a dust suppressant. The petitioner must demonstrate:*

(1) The specific lots of used oil proposed for use as a dust suppressant are not mixed with any hazardous waste and do not exhibit any characteristic of a hazardous waste as defined at Section 261, Subsection C of this regulation; and

(2) The used oil will be applied as a dust suppressant only in areas and in a manner which will preclude the used oil or runoff containing components of the used oil from entering any waters of the State (as defined at A.C.A. § 8-4-102(8)).

Section 18. [Reserved]

Section 19 EFFECT OF FEDERAL REGULATIONS

(a) Any regulations adopted by the Commission shall not be less stringent than the regulations promulgated or revised by the United States Environmental Protection Agency pursuant to the Federal Resource Conservation and Recovery Act of 1976, as amended.

(b) Where the Department issues variances pursuant to A.C.A. § 8-7-211, such variances shall not provide terms less stringent than those set by federal regulations adopted or incorporated by reference in this Regulation nor less stringent than those for which analogous provisions have been adopted herein.

(c) Nothing in this Section shall prohibit the Commission from imposing any rule or regulation, nor the Department from imposing any standard, procedure or permit condition which is more stringent than federal regulations, when such rule, standard, procedure or permit condition is required as a part of this Regulation or the Act or when the Department finds such stringency is necessary to protect the public health or the environment.

CHAPTER 3 REGULATIONS PROMULGATED UNDER ACT 1098 OF 1979

Section 20 AUTHORITY.

The regulations under this Chapter are promulgated pursuant to the Arkansas Resource Reclamation Act of 1979 (Act 1098 of 1979; A.C.A. 8-7-301 *et seq.*)

Section 21 DEFINITIONS.

In addition to the definition set forth in § 260.10, all of which apply to this Chapter, the following terms when used in this Chapter shall mean:

(a) “**Interstate Agreement or Compacts**” means any agreement or agreements between the State of Arkansas and another state or states or the federal government, which is entered into with the approval of the Governor in order to carry out the purposes of the Arkansas Resource Reclamation

Act (Act 1098 of 1979, as amended).

(b) “**Memorandum of Agreement**” means the agreement between the U.S. Environmental Protection Agency, as the authorized agent of the federal government, and the Arkansas Department of Environmental Quality, as the authorized agent of the Governor, for ADEQ to operate a state hazardous waste program pursuant to the federal Resource Conservation and Recovery Act in Arkansas in lieu of the federal government and in accordance with state laws and regulations which are equivalent to the federal program.

Section 22 STATE/EPA MEMORANDUM OF AGREEMENT

(a) The Memorandum of Agreement (MOA) effectuates the purposes set forth in Act 1098 of 1979, as amended for interstate agreements or compacts.

(b) Upon execution of the MOA all purposes of Act 1098 of 1979, as amended will be fulfilled with respect to the transportation and disposal of hazardous waste and no other agreements or compacts with respect thereto shall be entered into during the life of the MOA.

CHAPTER 4 [Reserved]

CHAPTER 5 OTHER PROVISIONS

Section 28 Penalty Policy and Administrative Procedures.

The provisions of Department of Pollution Control and Ecology Regulation No. 7, “Civil Penalties”, and Regulation No. 8, “Administrative Procedures” apply to this Regulation.

Section 29 Severability.

If any provision of this Regulation or the application thereof is held invalid, such invalidity shall not effect other provisions of this Regulation which can be given effect without

the invalid provision or application and to this end the provisions of this Regulation are declared to be severable.

Section 30

Effective Dates.

These regulations and any amendments or revision thereof are effective 10 days after filing the regulations or any amendment or revision thereof with the Secretary of State, except as specifically provided below:

(a) The effective date for the listing of spent potliner from Primary Aluminum Reduction (EPA Waste Code K088) shall be July 1, 1990.

(b) The effective date for the Used Oil Management Standards at Section 279 shall be July 1, 1994.

(c) The effective date for the Organic Air Emissions Standards for Tanks, Surface Impoundments, and Containers at §§ 264 and 265, Subsections CC shall be December 6, 1996.

ARKANSAS REGISTER

Transmittal Sheet



Charlie Daniels
 Secretary of State
 State Capitol Room 026
 Little Rock, Arkansas 72201-1094
 (501) 682-3527

For Office Use Only: Effective Date _____ Code Number _____

Name of Agency Arkansas Department of Environmental Quality

Department Arkansas Pollution Control and Ecology Commission

Contact Clyde Rhodes E-mail rhodes@adeq.state.ar.us Phone (501) 682-0831

Statutory Authority for Promulgating Rules A. C. A. §§ 8-7-209(b)(1) and §§ 8-7-506.

Regulation No. 23, Hazardous Waste Management; Docket No. 09-005-R; Minute Order No. 10-10

Rule Title: _____

Intended Effective Date		Date
<input type="checkbox"/> Emergency	Legal Notice Published	<u>09/27/09</u>
<input checked="" type="checkbox"/> 10 Days After Filing	Final Date for Public Comment	<u>12/14/09</u>
<input type="checkbox"/> Other _____	Reviewed by Legislative Council	<u>03/18/10</u>
	Adopted by State Agency	<u>04/23/10</u>
<input checked="" type="checkbox"/> Electronic Copy of Rule Provided on disk or CD (per Act 1478 of 2003)		
<input type="checkbox"/> Electronic Copy of Rule e-mailed from: _____		

Contact Person _____ Email Address _____ Date _____

FILED
 REG. DIV.
 10 JUN -3 PM 4:15
 CHARLIE DANIELS
 SECRETARY OF STATE
 STATE OF ARKANSAS
 BY _____

CERTIFICATION OF AUTHORIZED OFFICER

I Hereby Certify That The Attached Rules Were Adopted
 In Compliance with Act 434 of 1967 As Amended.

Michael O'Malley

 Signature

(501) 682-7890 omailey@adeq.state.ar.us

 Phone Number E-mail Address

Administrative Hearing Officer

 Title
 06/03/10

 Date

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ARKANSAS POLLUTION CONTROL & ECOLOGY COMMISSION

101 EAST CAPITOL

SUITE 205

LITTLE ROCK, ARKANSAS 72201

PHONE: (501) 682-7890

FAX: (501) 682-7891



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JUN 03 2010

BUREAU OF
LEGISLATIVE RESEARCH

June 3, 2010

Ms. Donna Davis
Administrative Rules and Regulations Committee
Room 433, State Capitol Building
Little Rock, Arkansas 72201

RE: Regulation No. 23, Hazardous Waste Management; Docket No.
09-005-R - **FINAL FILING**.

Dear Ms. Davis:

I am enclosing the following for filing with your office:

1. Two (2) hard copies of the amendment to Regulation No. 23, Hazardous Waste Management.
2. Two (2) copies of Commission Minute Order No. 10-10
3. Two (2) copies of the Financial Impact Statement.

Please provide written confirmation of your receipt of these materials by file-marking the enclosed copy of this letter and returning it to me.

Thank you for your assistance in this matter.

Respectfully,

A handwritten signature in cursive script that reads "Michael O'Malley".

Michael O'Malley
Administrative Hearing Officer

Enclosures

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For Office Use Only		
Effective Date:		Classification Number:
Name of Agency: Arkansas Department of Environmental Quality		
Contact Person: Clyde Rhodes		Telephone: (501) 682-0831
Statutory Authority for Promulgating Rules: A. C. A. §§ 8-7-209(b)(1) and §§ 8-7-506.		
Title of Rule: Regulation No 23, Hazardous Waste Management; Docket No 09-005-R; Minute Order No. 10-10.		
Rule Status	Effective Date Status	Effective Date
<input type="checkbox"/> New Rule/Regulation	<input type="checkbox"/> Emergency	
<input checked="" type="checkbox"/> Amended Rule/Regulation	<input checked="" type="checkbox"/> 10 Days after filing	June 13, 2010
<input type="checkbox"/> Repealed Rule/Regulation	<input type="checkbox"/> Other	
<input type="checkbox"/> Order	<input type="checkbox"/> Repealed	
<input type="checkbox"/> Emergency Rule/Regulation	Adopted by State Agency	
<input type="checkbox"/> Rule above is proposed and will be replaced by final version <input checked="" type="checkbox"/> Financial and/or Fiscal Impact Statement Attached		
<h3>Certification of Authorized Officer</h3>		
I hereby certify that the attached rules were adopted in compliance with Act 434 of 1967 as amended.		
Signature: <u>Michael D'Malley</u>		Date: <u>June 3, 2010</u>
Title: <u>Administrative Hearing Officer</u>		

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ARKANSAS POLLUTION CONTROL AND ECOLOGY COMMISSION

PETITION TO AMEND REG. No. 23

Docket No. 09-005-R

MINUTE ORDER NO. 10 - 10

PAGE 1 OF 1

Pursuant to public notice and hearing and after consideration of all comments received, the Arkansas Pollution Control and Ecology Commission hereby adopts changes to Regulation No. 23 (Hazardous Waste Management) as detailed in the Final Rule submitted before the Commission.

PROMULGATED THIS 23rd DAY OF APRIL 2010, BY ORDER OF THE ARKANSAS POLLUTION CONTROL AND ECOLOGY COMMISSION

BY: John Simpson
John Simpson, Chair

ATTEST: Teresa Marks
Teresa Marks, Director

APPROVED: Mike Beebe
Mike Beebe, Governor

COMMISSIONERS:

- | | | | |
|------------|---------------|------------|-------------|
| <u>JB</u> | L. Bengal | <u>JTS</u> | J. Shannon |
| <u>JSC</u> | J. Chamberlin | <u>LS</u> | L. Sickel |
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| <u>DS</u> | D. Samples | | |

J. Simpson SUBMITTED BY: Clyde Rhodes DATE PASSED: 4/23/2010
J. Simpson, Chair