| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **1. *CONTENT OF COMPREHENSIVE PERFORMANCE TEST PLAN*** | | | | |
| **1.A *General***. The source must provide the following: | | | | |
| **1.A.1** 63.1207(f)(1)(i) An analysis of each feedstream, including hazardous waste, other fuels, and industrial furnace feedstocks, as fired, that includes: | | | | |
| **1.A.1.a** 63.1207(f)(1)(i)(A) Heating value, levels of ash (for hazardous waste incinerators only), levels of semivolatile metals, low volatile metals, mercury, and total chlorine (organic and inorganic); and | | | | |
| **1.A.1.b** 63.1207(f)(1)(i)(B) Viscosity or description of the physical form of the feedstream; | | | | |
| **1.A.2** 63.1207(f)(1)(ii) For organic hazardous air pollutants established by 42 U.S.C. 7412(b)(1), excluding caprolactam (CAS number 105602) as provided by §63.60: | | | | |
| **1.A.2.a** 63.1207(f)(1)(ii)(A) An identification of such organic hazardous air pollutants that are present in the feedstream, except that the source need not analyze for organic hazardous air pollutants that would reasonably not be expected to be found in the feedstream. The source must identify any constituents that it excludes from analysis and explain the basis for excluding them. The source must conduct the feedstream analysis according to §63.1208(b)(8). The source may qualify for reduced analysis in lieu of the feedstream identification required by this section, on a case by case basis, according to the conditions set forth in 63.1207(f)(1)(ii)(D); | | | | |
| **1.A.2.b** 63.1207(f)(1)(ii)(B) An approximate quantification of such identified organic hazardous air pollutants in the feedstreams, within the precision produced by the analytical procedures of §63.1208(b)(8); and | | | | |
| **1.A.2.c** 63.1207(f)(1)(ii)(C) A description of blending procedures, if applicable, prior to firing the feedstream, including a detailed analysis of the materials prior to blending, and blending ratios; | | | | |
| **1.A.3.d** 63.1207(f)(1)(ii)(D) The Administrator may approve on a case-by-case basis a hazardous waste feedstream analysis for organic hazardous air pollutants in lieu of the analysis required under 63.1207(f)(1)(ii)(A) if the reduced analysis is sufficient to ensure that the POHCs used to demonstrate compliance with the applicable DRE standard of 63.1203, 63.1204, and 63.1205 continue to be representative of the organic hazardous air pollutants in the source's hazardous waste feedstreams. | | | | |
| **1.A.3** 63.1207(f)(1)(iii) A detailed engineering description of the hazardous waste combustor, including: | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **1.A.3.a** 63.1207(f)(1)(iii)(A) Manufacturer's name and model number of the hazardous waste combustor; | | | | |
| **1.A.3.b** 63.1207(f)(1)(iii)(B) Type of hazardous waste combustor; | | | | |
| **1.A.3.c** 63.1207(f)(1)(iii)(C) Maximum design capacity in appropriate. units; | | | | |
| **1.A.3.d** 63.1207(f)(1)(iii)(D) Description of the feed system for each feedstream; | | | | |
| **1.A.3.e** 63.1207(f)(1)(iii)(E) Capacity of each feed system; | | | | |
| **1.A.3.f** 63.1207(f)(1)(iii)(F) Description of automatic hazardous waste feed cutoff system(s); | | | | |
| **1.A.3.g** 63.1207(f)(1)(iii)(G) Description of the design, operation, and maintenance practices for any air pollution control system; and | | | | |
| **1.A.3.h** 63.1207(f)(1)(iii)(H) Description of the design, operation, and maintenance practices of any stack gas monitoring and pollution control monitoring systems; | | | | |
| **1.A.4** 63.1206(b)(12) *Documentation of compliance with the standards based on performance testing.* The source must conduct a minimum of three runs of a performance test required under §63.1207 to document compliance with the emission standards of this subpart. | | | | |
| **1.A.5** 63.1207(f)(1)(iv) 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. (Note that where applicable, equivalent SW-846 Methods may be used as well.) | | | | |
| **1.A.5.a *Test Methods*** | | | | |
| **1.A.5.a.1** 63.1208(b)(2) - (4) *Metals.* The source must use Method 29, provided in appendix A, part 60 of this chapter, to demonstrate compliance with emission standard for cadmium and lead (combined); and arsenic, beryllium, and chromium (combined); and mercury. | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **1.A.5.a.2** 63.1208(b)(6) *Particulate matter*. The source must use Methods 5 or 5i, provided in appendix A, part 60 of this chapter, to demonstrate compliance with the emission standard for particulate matter[1]. | | | | |
| **1.A.5.a.3** 63.1208(b)(1) *Dioxins and furans*. The source must use 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 paragraph 63.1208(a), to determine compliance with the emission standard for dioxins and furans; The source must sample for a minimum of three hours, and must collect a minimum sample volume of 2.5 dscm; The source may assume that nondetects are present at zero concentration. | | | | |
| **1.A.5.a.4** 63.1208(b)(5) *Hydrochloric acid and chlorine gas*. The source may use Methods 26A, 320, or 321 provided in appendix A, part 60 of this chapter, to determine compliance with the emission standard for hydrochloric acid and chlorine gas (combined). The source may use Methods 320 or 321 to make major source determinations under §63.9(b)(2)(v). | | | | |
| **1.A.5.a.5** 63.1208(b)(8) *Feedstream analytical methods*. The source may use any reliable analytical method to determine feedstream concentrations of metals, chlorine, and other constituents. It is the source's responsibility to ensure that the sampling and analysis procedures are unbiased, precise, and that the results are representative of the feedstream. For each feedstream, the source must demonstrate that each analyte is not present above the reported level at the 80% upper confidence limit around the mean; and the analysis could have detected the presence of the constituent at or below the reported level at the 80% upper confidence limit around the mean. (See Guidance for Data Quality Assessment–Practical Methods for Data Analysis, EPA QA/G-9, January 1998, EPA/600/R-96/084). | | | | |
| **1.A.5.b** 63.7(c) *Quality Assurance Program*. A Quality Assurance Project Plan (QAPP) should be included for all the proposed analytical work[2]. | | | | |

[1]**Footnote to 1.A.5.a.2:** The selection of the method depends on the expected PM emissions level during the performance test. In cases of low levels of particulate matter (i.e., for total train catches of less than 50 mg), it is recommended that Method 5i be used. For higher emissions, Method 5 may be used. Note that this total train catch is not intended to be a data acceptance criterion. Thus, total train catches exceeding 50 mg do not invalidate the method. In practice this will likely mean that all incinerators and most lightweight aggregate kilns will use Method 5i for compliance, while some lightweight aggregate kilns and some cement kilns will use Method 5. Note that Method 5i has been shown to have better precision than Method 5. *(Technical Support Document Volume IV)*

[2]**Footnote to 1.A.5.b:** The QAPP should consider and be developed in accordance with such EPA documents as (1) *Region 5 policy for Developing Quality Assurance Project Plans* (available from www.epa.gov/region5/rcraca/guidance.htm ); (2) *QA/QC Procedures for Hazardous Waste Incineration* (EPA 625-6-89-023); and (3) Component 2 f Region 6's *Hazardous Waste Combustion Unit Permitting Manual* (available at www.epa.gov/earth1r6/6pd/rcra_c/manual/manual.htm )

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **1.A.5.b.1** 63.7(c)(2)(i) The test plan must include a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program. Data quality objectives are the pretest expectations of precision, accuracy, and completeness of data. | | | | |
| **1.A.5.b.2** 63.7(c)(2)(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision; an example of internal QA is the sampling and analysis of replicate samples. | | | | |
| **1.A.5.b.3** 63.7(c)(2)(iii) The external QA program shall include, at a minimum, application of plans for a test method performance audit (PA) during the performance test. The PA's consist of blind audit samples provided by the Administrator and analyzed during the performance test in order to provide a measure of test data bias. The external QA program may also include systems audits that include the opportunity for onsite evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities. | | | | |
| **1.A.6** 63.1207(f)(1)(v) A detailed test schedule for each hazardous waste for which the performance test is planned, including date(s), duration, quantity of hazardous waste to be burned, and other relevant factors; | | | | |
| **1.A.7** 63.1207(f)(1)(vi) A detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feedrate for each feed system, and, as appropriate, the feedrates of other fuels and feedstocks, and any other relevant parameters that may affect the ability of the hazardous waste combustor to meet the emission standards | | | | |
| **1.A.8** 63.1207(f)(1)(vii) A description of, and planned operating conditions for, any emission control equipment that will be used; | | | | |
| **1.A.9** 63.1207(f)(1)(viii) Procedures for rapidly stopping the hazardous waste feed and controlling emissions in the event of an equipment malfunction; | | | | |
| **1.A.10** 63.1207(f)(1)(ix) and 63.1206(b)(11) A determination of the hazardous waste residence time; | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **1.A.11** 63.1207(f)(1)(x) If the source is requesting to extrapolate metal feedrate limits from comprehensive performance test levels under 63.1209(l)(1)(i) or 63.1209(n)(2)(ii)(A): | | | | |
| **1.A1.11.a** 63.1207(f)(1)(x)(A) A description of the extrapolation methodology and rationale for how the approach ensures compliance with the emission standards; | | | | |
| **1.A.11.b** 63.1207(f)(1)(x)(B) Documentation of the historical range of normal (i.e., other than during compliance testing) metals feedrates for each feedstream; | | | | |
| **1.A.11.c** 63.1207(f)(1)(x)(C) Documentation that the level of spiking recommended during the performance test will mask sampling and analysis imprecision and inaccuracy to the extent that extrapolation of feedrates limits adequately assure compliance with the emission standards. | | | | |
| **1.A.12** 63.1207(f)(1)(xi) If the source does not continuously monitor regulated constituents in natural gas, process air feedstreams, and feedstreams from vapor recovery systems under 63.1209(c)(5), it must include documentation of the expected levels of regulated constituents in those feedstreams; | | | | |
| **1.A.13** 63.1207(f)(1)(xii) Documentation justifying the duration of system conditioning required to ensure the combustor has achieved steady-state operations under performance test operating conditions, as provided by paragraph (g)(1)(iii) of this section; | | | | |
| **1.A.14** 63.1207(f)(1)(xiii) For cement kilns with in-line raw mills, if the source elects to use the emissions averaging provision of 63.1204(d), it must notify the Administrator of its intent in the initial (and subsequent) comprehensive performance test plan, and provide the information required under 63.1204(d)(ii)(B). | | | | |
| **1.A.15** 63.1207(f)(1)(xiv) For preheater or preheater/precalciner cement kilns with dual stacks, if the source elects to use the emissions averaging provision of 63.1204(e), it must notify the Administrator of its intent in the initial (and subsequent) comprehensive performance test plan, and provide the information required under 63.1204(e)(2)(iii)(A). | | | | |
| **1.A.16** 63.1207(f)(1)(xv) For incinerators and lightweight aggregate kilns equipped with a baghouse, the source must submit the baghouse operation and maintenance plan required under 63.1206(c)(7)(ii)with the initial comprehensive performance test plan. | | | | |
| **1.A.17** 63.1207(f)(1)(xvi) If the source is not required to conduct performance testing to document compliance with the mercury, semivolatile metal, low volatile metal, or hydrochloric acid/chlorine gas emission standards under paragraph 63.1207(m), it must include with the comprehensive performance test plan documentation of compliance with the provisions of that section. (Also see section 2.A of this checklist) | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **1.A.18** 63.1207(f)(1)(xvii) If the source proposes to use a surrogate for measuring or monitoring gas flowrate, it must document in the comprehensive performance test plan that the surrogate adequately correlates with gas flowrate, as required by paragraph 63.1207(m)(7), and 63.1209(j)(2), (k)(3), (m)(2)(i), (n)(5)(i),and (o)(2)(i). | | | | |
| **1.A.19** 63.1207(f)(1)(xviii) The source must submit an application to request alternative monitoring under 63.1209(g)(1) not later than with the comprehensive performance test plan, as required by 63.1209(g)(1)(iii)(A). (Also see section 2.D of this checklist) | | | | |
| **1.A.20** 63.1207(f)(1)(xix) The source must document the temperature measurement location in the comprehensive performance test plan. As required by 63.1209(j)(1)(i) and 63.1209(k)(2)(i), the source must measure the temperature of each combustion chamber at a location that best represents, as practicable, the bulk gas temperature in the combustion zone. | | | | |
| **1.A.21** 63.1207(f)(1)(xx) If the source is equipped with activated carbon injection, it must document in the comprehensive performance test plan (Also see section 1.C.2.f of this checklist | | | | |
| **1.A.21.a** 63.1207(f)(1)(xx)(A) The manufacturer specifications for minimum carrier fluid flowrate or pressure drop, as required by 63.1209(k)(6)(ii); and | | | | |
| **1.A.21.b** 63.1207(f)(1)(xx)(B) Key parameters that affect carbon adsorption, and the operating limits the source establishes for those parameters based on the carbon used during the performance test, if the source elects not to specify and use the brand and type of carbon used during the comprehensive performance test, s required by 63.1209(k)(6)(iii). | | | | |
| **1.A.22** 63. 1207(f)(xxi) If the source is equipped with a carbon bed test system, it must include in the comprehensive performance test plan (Also see section 1.C.2.g of this checklist): | | | | |
| **1.A.22.a** 63.1207(f)(1)(xxi)(A) A recommended schedule for conducting a subsequent performance test to document compliance with the dioxin/furan and mercury emission standards if the source uses manufacturer specifications rather than actual bed age at the time of the test to establish the initial limit on bed age, as required by 63.1209(k)(7)(i)(C); and | | | | |
| **1.A.22.b** 63.1207(f)(1)(xxi)(B) Key parameters that affect carbon adsorption, and the operating limits the source establishes for those parameters based on the carbon used during the performance test, if the source elects not to specify and use the brand and type of carbon used during the comprehensive performance test, as required by 63.1209(k)(7)(ii). | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **1.A.23** 63.1207(f)(1)(xxii) If the source feeds a dioxin/furan inhibitor into the combustion system, it must document in the comprehensive performance test plan key parameters that affect the effectiveness of the inhibitor, and the operating limits it establishes for those parameters based on the inhibitor fed during the performance test, if the source elects not to specify and use the brand and type of inhibitor used during the comprehensive performance test, as required by 63.1209(k)(9)(ii). (Also see section 1.C.2.i of this checklist) | | | | |
| **1.A.24** 63.1207(f)(1)(xxiii) If the source is equipped with a wet scrubber and it elects to monitor solids content of the scrubber liquid manually but believes that hourly monitoring of solids content is not warranted, the source must support an alternative monitoring frequency in the comprehensive performance test plan, as required by 63.1209(m)(1)(i)(B)(1)(i). (Also see section 1.C.4.a.1.b of this checklist | | | | |
| **1.A.25** 63.1207(f)(1)(xxiv) If the source is equipped with a particulate matter control device other than a wet scrubber, baghouse, or electrostatic precipitator, it must include in the comprehensive performance test plan (Also see section 1.C.4.a.4 of this checklist): | | | | |
| **1.A.25.a** 63.1207(f)(1)(xxiv)(A) Documentation to support the operating parameter limits the source establishes for the control device, as required by 63.1209(m)(1)(iv)(A)(4); and | | | | |
| **1.A.25.b** 63.1207(f)(1)(xxiv)(B) Support for the use of manufacturer specifications if the source recommends such specifications in lieu of basing operating limits on performance test operating levels, as required by 63.1209(m)(1)(iv)(D). | | | | |
| **1.A.26** 63.1207(f)(1)(xxv) If the source is equipped with a dry scrubber to control hydrochloric acid and chlorine gas, it must document in the comprehensive performance test plan key parameters that affect adsorption, and the limits it establishes for those parameters based on the sorbent used during the performance test, if the source elects not to specify and use the brand and type of sorbent used during the comprehensive performance test, as required by 63.1209(o)(4)(iii)(A) (also see section 1.C.6.d of this checklist); and | | | | |
| **1.A.27** 63.1209(a)(7) *Operating parameter limits for hydrocarbons.* If you elect to comply with the carbon monoxide and hydrocarbon emission standards by continuously monitoring carbon monoxide with a CEMS, you must demonstrate that hydrocarbon emissions during the comprehensive performance test do not exceed the hydrocarbon emissions standard. In addition, the limits you establish on the destruction and removal efficiency (DRE) operating parameters required under 63.1209(j) also ensure that you maintain compliance with the hydrocarbon emission standard. If you do not conduct the hydrocarbon demonstration and DRE tests concurrently, you must establish separate operating parameter limits under 63.1209(j) based on each test and the more restrictive of the operating parameter limits applies. | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **1.A.28** 63.1207(f)(1)(xxvi) For purposes of calculating semivolatile metal; low volatile metal, mercury, and total chlorine (organic and inorganic), and ash federate limits, a description of how the source will handle performance test feedstream analytical results that determines these constituents are not present at detectable levels. | | | | |
| | | | | |
| **1.B** *Operating conditions during testing.* | | | | |
| **1.B.1** 63.1207(g)(1)(i) *Operations during testing*. For the following parameters, the source must operate the combustor during the performance test under normal conditions (or conditions that will result in higher than normal emissions): | | | | |
| **1.B.1.a** 63.1207(g)(1)(i)(A) *Chlorine feedrate.* The source must feed normal (or higher) levels of chlorine during the dioxin/furan performance test; | | | | |
| **1.B.1.b** 63.1207(g)(1)(i)(B) *Ash feedrate.* For hazardous waste incinerators, the source must conduct the following tests when feeding normal (or higher) levels of ash; the semivolatile metal and low volatile metal performance tests; and the dioxin/furan and mercury performance tests; and the dioxin/furan and mercury performance tests if activated carbon injection of a carbon bed is used. | | | | |
| **1.B.1.c** 63.1207(g)(1)(i)(C) *Cleaning cycle of the particulate matter control device.* The source must conduct the following tests when the particulate matter control device undergoes its normal (or more frequent) cleaning cycle: the particulate matter, semivolatile metal, and low volatile metal performance tests; and the dioxin/furan and mercury performance tests if activated carbon injection or a carbon bed is used | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **1.C** *Specific Monitoring Requirements During Performance Test* | | | | |
| **1.C.1** 63.1209(j) *DRE*. The source must establish operating limits during the comprehensive performance test (or during a previous DRE test under provisions of §63.1206(b)(7)) for the following parameters, unless the limits are based on manufacturer specifications, and comply with those limits at all times that hazardous waste remains in the combustion chamber (i.e., the hazardous waste residence time has not transpired since the hazardous waste feed cutoff system was activated): | | | | |
| **1.C.1.a** 63.1209(j)(1) *Minimum combustion chamber temperature.* The source must measure the temperature of each combustion chamber at a location that best represents, as practicable, the bulk gas temperature in the combustion zone. The source must document the temperature measurement location in the test plan (See 1.A.20); | See 1. A. 20 | | | |
| **1.C.1.b** 63.1209(j)(2) *Maximum flue gas flowrate or production rate*. As an indicator of gas residence time in the control device, the source must establish and comply with a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that the source documents in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. | | | | |
| **1.C.1.c** 63.1209(j)(3) *Maximum hazardous waste feedrate*. The source must establish limits on the maximum pumpable and total (i.e., pumpable and nonpumpable) hazardous waste feedrate for each location where hazardous waste is fed. | | | | |
| **1.C.1.d** 63.1209(j)(4) *Operation of waste firing system.* The source must specify operating parameters and limits to ensure that good operation of each hazardous waste firing system is maintained. | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **1.C.2** 63.1209(k) *Dioxins and furans*. The source must comply with the dioxin and furans emission standard by establishing and complying with the following operating parameter limits. The source must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications. | | | | |
| **1.C.2.a** 63.1209(k)(1) *Gas temperature at the inlet to a dry particulate matter control device* | | | | |
| **1.C.2.a.1** 63.1209(k)(1)(i) For hazardous waste burning incinerators and cement kilns, if the combustor is equipped with an electrostatic precipitator, baghouse (fabric filter), or other dry emissions control device where particulate matter is suspended in contact with combustion gas, the source must establish a limit on the maximum temperature of the gas at the inlet to the device on an hourly rolling average. The source must establish the hourly rolling average limit as the average of the test run averages. | | | | |
| **1.C.2.a.2** 63.1209(k)(1)(ii) For hazardous waste burning lightweight aggregate kilns, the source must establish a limit on the maximum temperature of the gas at the exit of the (last) combustion chamber (or exit of any waste heat recovery system) on an hourly rolling average. The limit must be established as the average of the test run averages; | | | | |
| **1.C.2.b** 63.1209(k)(2) *Minimum combustion chamber temperature*. The source must measure the temperature of each combustion chamber at a location that best represents, as practicable, the bulk gas temperature in the combustion zone. The source must document the temperature measurement location in the test plan (See 1.A.20 and 1.C.1.a); See 1.A.20 | See 1.A.20 | | | |
| **1.C.2.c** 63.1209(k)(3) *Maximum flue gas flowrate or production rate.* As an indicator of gas residence time in the control device, the source must establish and comply with a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that the source documents in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. The source must comply with this limit on a hourly rolling average basis (See 1.C.1.b); | | | | |
| **1.C.2.d** 63.1209(k)(4) *Maximum waste feedrate*. The source must establish limits on the maximum pumpable and total (pumpable and nonpumpable) waste feedrate for each location where waste is fed. The source must establish the limits as the average of the maximum hourly rolling averages for each run. The source must comply with the feedreate limit(s) on a hourly rolling average basis (See 1.C.1.c); | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **1.C.2.e** 63.1209(k)(5) *Particulate matter operating limit*. If the combustor is equipped with an activated carbon injection, the source must establish operating parameter limits on the particulate matter control device as specified by paragraph (m)(1) of this (See 1.C.4.a); | | | | |
| **1.C.2.f** 63.1209(k)(6) *Activated carbon injection parameter limits*. If the combustor is equipped with an activated carbon injection system (see 1.A.21): | | | | |
| **1.C.2.f.1** 63.1209(k)(6)(i) *Carbon feedrate*. The source must establish a limit on minimum carbon injection rate on an hourly rolling average calculated as the average of the test run averages. If the carbon injection system injects carbon at more than one location, the source must establish a carbon feedrate limit for each location. | | | | |
| **1.C.2.f.2** 63.1209(k)(6)(ii) *Carrier fluid*. The source must establish a limit on minimum carrier fluid (gas or liquid) flowrate or pressure drop as an hourly rolling average based on the manufacturer's specifications. The source must document the specifications in the test plan; | | | | |
| **1.C.2.f.3** 63.1209(k)(6)(iii) *Carbon specification.* The source must specify and use the brand (i.e., manufacturer) and type of carbon used during the comprehensive performance test until a subsequent comprehensive performance test is conducted, unless the source documents in the site-specific performance test plan key parameters that affect adsorption and establish limits on those parameters based on the carbon used in the performance test[3]. | | | | |
| **1.C.2.g** 63.1209(k)(7) *Carbon bed parameter limits.* If the combustor is equipped with a carbon bed system (See 1.A.22): | | | | |

[3]**Footnote to 1.C.2.f.3:** Under 63.1209(k)(6)(iii)(B) The source may substitute at any time a different brand or type of carbon provided that the replacement has equivalent or improved properties compared to the carbon used in the performance test and conforms to the key sorbent parameters the source identifies under paragraph (k)(6)(iii)(A) of this section. The source must include in the operating record documentation that the substitute carbon will provide the same level of control as the original carbon.

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **1.C.2.g.1** 63.1209(k)(7)(i) *Maximum bed life.* The source must monitor performance of the carbon bed consistent with manufacturer's specifications and recommendations to ensure the carbon bed (or bed segment for sources with multiple segments) has not reached the end of its useful life to minimize dioxin/furan and mercury emissions at least to the levels required by the emission standards. The source must document the procedures in the operations and maintenance plan. The source must record results of the performance monitoring in the operating record. The source must replace the bed or bed segment before it has reached the end of its useful life to minimize dioxin/furan and mercury emissions at least to the levels required by the emission standards. | | | | |
| **1.C.2.g.2** 63.1209(k)(7)(ii) *Carbon specification.* The source must specify and use the brand (i.e., manufacturer) and type of carbon used during the comprehensive performance test until a subsequent comprehensive performance test is conducted, unless it documents in its site-specific performance test plan required under §§63.1207(e) and (f) key parameters that affect adsorption and establish limits on those parameters based on the carbon used in the performance test[4]. | | | | |
| **1.C.2.g.3** 63.1209(k)(7)(iii) *Maximum temperature*. The source must measure the temperature of the carbon bed at either the bed inlet or exit, and must establish a maximum temperature limit on an hourly rolling average as the average of the test run averages. | | | | |
| **1.C.2.h** 63.1209(k)(8) *Catalytic oxidizer parameter limits*. If the combustor is equipped with a catalytic oxidizer, the source must establish limits on the following parameters: | | | | |

[4]**Footnote to 1.C.2.g.2:** Under 63.1209(k)(7)(ii)(B) the source may substitute at any time a different brand or type of carbon provided that the replacement has equivalent or improved properties compared to the carbon used in the performance test. The source must include in the operating record documentation that the substitute carbon will provide an equivalent or improved level of control as the original carbon.

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **1.C.2.h.1** 63.1209(k)(8)(i) *Minimum flue gas temperature at the entrance of the catalyst*. The source must establish a limit on minimum flue gas temperature at the entrance of the catalyst on an hourly rolling average as the average of the test run averages | | | | |
| **1.C.2.h.2** 63.1209(k)(8)(ii) *Maximum time in-use*. The source must replace a catalytic oxidizer with a new catalytic oxidizer when it has reached the maximum service time specified by the manufacturer | | | | |
| **1.C.2.h.3** 63.1209(k)(8)(iii) *Catalyst replacement specifications*. When the source replaces a catalyst with a new one, the new catalyst must be equivalent to or better than the one used during the previous comprehensive test, as measured by (1) catalytic metal loading for each metal; (2) space time, expressed in the units $s^{-1}$, the maximum rated volumetric flow of combustion gas through the catalyst divided by the volume of the catalyst; and (3) substrate construction, including materials of construction, washcoat type, and pore density | | | | |
| **1.C.2.h.4** 63.1209(k)(8)(iv) *Maximum flue gas temperature*. The source must establish a maximum flue gas temperature limit at the entrance of the catalyst as an hourly rolling average, based on manufacturer's specifications. | | | | |
| **1.C.2.i** 63.1209(k)(9) *Inhibitor feedrate parameter limits*. If the source feeds a dioxin/furan inhibitor into the combustion system, it must establish limits for the following parameters (See 1.A.23): | | | | |
| **1.C.2.i.1** 63.1209(k)(9)(i) *Minimum inhibitor feedrate*. The source must establish a limit on minimum inhibitor feedrate on an hourly rolling average as the average of the test run averages. | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **1.C.2.i.2** 63.1209(k)(9)(ii) *Inhibitor specifications*. The source must specify and use the brand (i.e., manufacturer) and type of inhibitor used during the comprehensive performance test until a subsequent comprehensive performance test is conducted, unless the source documents in the site-specific performance test plan key parameters that affect the effectiveness of the inhibitor and establish limits on those parameters based on the inhibitor used in the performance test[5]. | | | | |
| **1.C.3** 63.1209(l) *Mercury*. The source must comply with the mercury emission standard by establishing and complying with the following operating parameter limits. The source must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications | | | | |
| **1.C.3.a** 63.1209(l)(1) *Feedrate of total mercury*. The source must establish a 12-hour rolling average limit for the total feedrate of mercury in all feedstreams as the average of the test run averages, unless mercury feedrate limits are extrapolated from performance test feedrate levels under the following provisions. | | | | |
| **1.C.3.a.1** 63.1209(l)(1)(i) The source may request as part of the performance test plan under 63.7(b) and (c) and 63.1207(e) and (f) to use the mercury feedrates and associated emission rates during the comprehensive performance test to extrapolate to higher allowable feedrate limits and emission rates. Under 63.1209(l)(1)(ii), the extrapolation methodology will be reviewed and approved, as warranted, by the Administrator. The review will consider in particular whether: | | | | |
| **1.C.3.a.1.a** 63.1209(l)(1)(ii)(A) Performance test metal feedrates are appropriate (i.e., whether feedrates are at least at normal levels; depending on the heterogeneity of the waste, whether some level of spiking would be appropriate; and whether the physical form and species of spiked material is appropriate); and | | | | |

[5] **Footnote to 1.C.2.i.2:** Under 63.1209(k)(9)(ii)(B) the source may substitute at any time a different brand or type of inhibitor provided that the replacement has equivalent or improved properties to the inhibitor used in the performance test and conforms to the key parameters the source identifies under paragraph (k)(9)(ii)(A) of this section. The source must include in the operating record documentation that the substitute inhibitor will provide the same level of control as the original inhibitor.

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **1.C.3.a.1.b** 63.1209(l)(1)(ii)(B) Whether the extrapolated feedrates the source is requesting are warranted considering historical metal feedrate data. Note that under 63.1209(l)(1)(iii), the Administrator will review the performance test results in making a finding of compliance required by §§63.6(f)(3) and 63.1206(b)(3) to ensure that the source has interpreted emission test results properly and that the extrapolation procedure is appropriate for the combustor. | | | | |
| **1.C.4** 63.1209(m) *Particulate matter*. The source must comply with the particulate matter emission standard by establishing and complying with the following operating parameter limits. The source must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications. | | | | |
| **1.C.4.a** 63.1209(m)(1) *Control device operating parameter limits.* | | | | |
| **1.C.4.a.1** 63.1209(m)(1)(i) *Wet scrubbers.* For sources equipped with wet scrubbers, including ionizing wet scrubbers, high energy wet scrubbers such as venturi, hydrosonic, collision, or free jet wet scrubbers, and low energy wet scrubbers such as spray towers, packed beds, or tray towers, the source must establish limits on the following parameters: | | | | |
| **1.C.4.a.1.a** 63.1209(m)(1)(i)(A) For high energy scrubbers only, minimum pressure drop across the wet scrubber on an hourly rolling average, established as the average of the test run averages; | | | | |
| **1.C.4.a.1.b** 63.1209(m)(1)(i)(B) For all wet scrubbers (See 1.A.24): | | | | |
| **1.C.4.a.1.b.1** 63.1209(m)(1)(i)(B)(*1*) To ensure that the solids content of the scrubber liquid does not exceed levels during the performance test, the source must either (1) establish a limit on solids content of the scrubber liquid using a CMS or by manual sampling and analysis, or (2) establish a minimum blowdown rate using a CMS and either a minimum scrubber tank volume or liquid level using a CMS. If the source elects to monitor solids content manually, it must sample and analyze the scrubber liquid hourly unless it supports an alternative monitoring frequency in the performance test plan that it submits for review and approval; or | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **1.C.4.a.1.b.2** 63.1209(m)(1)(i)(B)(*2*) For maximum solids content monitored with a CMS, the source must establish a limit on a twelve-hour rolling average as the average of the test run averages. | | | | |
| **1.C.4.a.1.b.3** 63.1209(m)(1)(i)(B)(*3*) For maximum solids content measured manually, the source must establish an hourly limit, as measured at least once per hour, unless it supports an alternative monitoring frequency in the performance test plan that it submits for review and approval. The source must establish the maximum hourly limit as the average of the manual measurement averages for each run. | | | | |
| **1.C.4.a.1.b.4** 63.1209(m)(1)(i)(B)(*4*) For minimum blowdown rate and either a minimum scrubber tank volume or liquid level using a CMS, the source must establish a limit on an hourly rolling average as the average of the test run averages. | | | | |
| **1.C.4.a.1.c** 63.1209(m)(1)(i)(C) For high energy wet scrubbers only, the source must establish limits on either the minimum liquid to gas ratio or the minimum scrubber water flowrate and maximum flue gas flowrate on an hourly rolling average. If the source establishes limits on maximum flue gas flowrate under this paragraph, it need not establish a limit on maximum flue gas flowrate under paragraph (m)(2) of this section. The source must establish these hourly rolling average limits as the average of the test run averages; and | | | | |
| **1.C.4.a.1.d** 63.1209(m)(1)(i)(D) **This requirement has been deleted.** | | | | |
| **1.C.4.a.2** 63.1209(m)(1)(iv) *Other particulate matter control devices*. For each control device that is not a high energy or ionizing wet scrubber, baghouse, or electrostatic precipitator but is operated to comply with the particulate matter emission standards of this subpart, the source must ensure that the control device is properly operated and maintained as required by §63.1206(c)(7) (*i.e.*, requirements for an Operation and Maintenance Plan) and by monitoring the operation of the control device as follows (See 1.A.25): | | | | |
| **1.C.4.a.2.a** 63.1209(m)(1)(iv)(A) During each comprehensive performance test conducted to demonstrate compliance with the particulate matter emissions standard, the source must establish a range of operating values for the control device that is a representative and reliable indicator that the control device is operating within the same range of conditions as during the performance test. The source must establish this range of operating values as follows: | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **1.C.4.a.2.a.1** 63.1209(m)(1)(iv)(A)(*1*) The source must select a set of operating parameters appropriate for the control device design that the source determines to be a representative and reliable indicator of the control device performance. | | | | |
| **1.C.4.a.2.a.2** 63.1209(m)(1)(iv)(A)(*2*) The source must measure and record values for each of the selected operating parameters during each test run of the performance test. A value for each selected parameter must be recorded using a continuous monitor. | | | | |
| **1.C.4.a.2.a.3** 63.1209(m)(1)(iv)(A)(*3*) For each selected operating parameter measured in accordance with the requirements of paragraph (m)(1)(iv)(A)(*1*) of this section, the source must establish a minimum operating parameter limit or a maximum operating parameter limit, as appropriate for the parameter, to define the operating limits within which the control device can operate and still continuously achieve the same operating conditions as during the performance test. | | | | |
| **1.C.4.a.2.a.4** 63.1209(m)(1)(iv)(A)(*4*) The source must prepare written documentation to support the operating parameter limits established for the control device and the source must include this documentation in the performance test plan that it submits for review and approval. This documentation must include a description for each selected parameter and the operating range and monitoring frequency required to ensure the control device is being properly operated and maintained. | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **1.C.4.a.2.b** 63.1209(m)(1)(iv)(B) The source must install, calibrate, operate, and maintain a monitoring device equipped with a recorder to measure the values for each operating parameter selected in accordance with the requirements of 63.1209(m)(1)(iv)(A)(*1*). The recorder must record the detector responses at least every 60 seconds. Per 63.1209(m)(1)(iv)(D), operating parameters selected in accordance with (m)(1)(iv) of this section may be based on manufacturer specifications provided the source supports the use of manufacturer specifications in the performance test plan that it submits for review and approval[6]. | | | | |
| **1.C.4.b** 63.1209(m)(2) *Maximum flue gas flowrate or production rate*. As an indicator of gas residence time in the control device, the source must establish a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that it documents in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. The source must comply with this limit on a hourly rolling average basis (see 1.C.1.b); | | | | |
| **1.C.4.c** 63.1209(m)(3) *Maximum ash feedrate*. Owners and operators of hazardous waste incinerators must establish a maximum ash feedrate limit as the average of the test run averages (See 1.B.1.b). | | | | |
| **1.C.5** 63.1209(n) *Semivolatile metals and low volatility metals*. The source must comply with the semivolatile metal (cadmium and lead) and low volatile metal (arsenic, beryllium, and chromium) emission standards by establishing and complying with the following operating parameter limits. The source must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications. | | | | |
| **1.C.5.a** 63.1209(n)(1) *Maximum inlet temperature to dry particulate matter air pollution control device*. The source must establish a limit on the maximum inlet temperature to the primary dry metals emissions control device (e.g., electrostatic precipitator, baghouse) on an hourly rolling average basis as the average of the test run averages (See 1.C.2.a). | | | | |
| **1.C.5.b** 63.1209(n)(2) *Maximum feedrate of semivolatile and low volatile metals*. | | | | |

[6]**Footnote to 1.C.4.a.2.b:** 63.1209(m)(1)(iv)(C) The source must inspect the data recorded by the operating parameter monitoring system at a sufficient frequency to ensure the control device is operating properly. An excursion is determined to have occurred any time that the actual value of a selected operating parameter is less than the minimum operating limit (or, if applicable, greater than the maximum operating limit) established for the parameter in accordance with the requirements of paragraph (m)(1)(iv)(A)(*3*) of this section.

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **1.C.5.b.1** 63.1209(n)(2)(i) *General.* The source must establish feedrate limits for semivolatile metals (cadmium and lead) and low volatile metals (arsenic, beryllium, and chromium) as follows, except as provided by paragraph (n)(2)(ii) of this section: | | | | |
| **1.C.5.b.1.a** 63.1209(n)(2)(i)(A) The source must establish a 12-hour rolling average limit for the feedrate of cadmium and lead, combined, in all feedstreams as the average of the test run averages | | | | |
| **1.C.5.b.1.b** 63.1209(n)(2)(i)(B) The source must establish a 12-hour rolling average limit for the feedrate of arsenic, beryllium, and chromium, combined, in all feedstreams as the average of the test run averages; and | | | | |
| **1.C.5.b.1.c** 63.1209(n)(2)(i)(C) The source must establish a 12-hour rolling average limit for the feedrate of arsenic, beryllium, and chromium, combined, in all pumpable feedstreams as the average of the test run averages. Dual feedrate limits for both pumpable and total feedstreams are not required, however, if the source bases the total feedrate limit solely on the feedrate of pumpable feedstreams | | | | |
| **1.C.5.b.2** 63.1209(n)(2)(ii) *Feedrate extrapolation* | | | | |
| **1.C.5.b.2.a** 63.1209(n)(2)(ii)(A) The source may request as part of the performance test plan to use the semivolatile metal and low volatile metal feedrates and associated emission rates during the comprehensive performance test to extrapolate to higher allowable feedrate limits and emission rates. (See 1.A.11) | | | | |
| **1.C.5.b.2.b** 63.1209(n)(2)(ii)(B) The extrapolation methodology will be reviewed and approved, as warranted, by the Administrator. The review will consider in particular whether[7]: | | | | |
| **1.C.5.b.2.b.1** 63.1209(n)(2)(ii)(B)(*1*) Performance test metal feedrates are appropriate (i.e., whether feedrates are at least at normal levels; depending on the heterogeneity of the waste, whether some level of spiking would be appropriate; and whether the physical form and species of spiked material is appropriate); and | | | | |

[7]**Footnote to 1.C.5.b.2.b**: Under 63.1209(n)(2)(ii)(C), the Administrator will review the performance test results in making a finding of compliance required by 63.6(f)(3) and 63.1206(b)(3) to ensure that the source has interpreted emission test results properly and that the extrapolation procedure is appropriate.

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **1.C.5.b.2.b.2** 63.1209(n)(2)(ii)(B)(2) Whether the extrapolated feedrates the source has requested are warranted considering historical metal feedrate data. | | | | |
| **1.C.5.c** 63.1209(n)(4) *Maximum total chlorine and chloride feedrate*. The source must establish a 12-hour rolling average limit for the feedrate of total chlorine and chloride in all feedstreams as the average of the test run averages. | | | | |
| **1.C.5.d** 63.1209(n)(5) *Maximum flue gas flowrate or production rate*. As an indicator of gas residence time in the control device, the source must establish a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that the source documents in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the test run averages. The source must comply with this limit on a hourly rolling average basis. (See 1.C.1.b) | | | | |
| **1.C.6** 63.1209(o) *Hydrochloric acid and chlorine gas*. The source must comply with the hydrogen chloride and chlorine gas emission standard by establishing and complying with the following operating parameter limits. The source must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications. | | | | |
| **1.C.6.a** 63.1209(o)(1) *Feedrate of total chlorine and chloride*. The source must establish a 12-hour rolling average limit for the total feedrate of chlorine (organic and inorganic) in all feedstreams as the average of the test run averages. | | | | |
| **1.C.6.b** 63.1209(o)(2) *Maximum flue gas flowrate or production rate*. As an indicator of gas residence time in the control device, the source must establish a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that it documents in the sites specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. The source must comply with this limit on a hourly rolling average basis (See 1.C.1.b); | | | | |
| **1.C.6.c** 63.1209(o)(3) *Wet scrubber*. If the combustor is equipped with a wet scrubber: | | | | |
| **1.C.6.c.1** 63.1209(o)(3)(i) If the source is equipped with a high energy wet scrubber such as a venturi, hydrosonic, collision, or free jet wet scrubber, it must establish a limit on minimum pressure drop across the wet scrubber on an hourly rolling average as the average of the test run averages; | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **1.C.6.c.2** 63.1209(o)(3)(ii) If the source is equipped with a low energy wet scrubber such as a spray tower, packed bed, or tray tower, it must establish a minimum pressure drop across the wet scrubber based on manufacturer's specifications. The source must comply with the limit on an hourly rolling average; | | | | |
| **1.C.6.c.3** 63.1209(o)(3)(iii) If the source is equipped with a low energy wet scrubber, it must establish a limit on minimum liquid feed pressure to the wet scrubber based on manufacturer's specifications. The source must comply with the limit on an hourly rolling average; | | | | |
| **1.C.6.c.4** 63.1209(o)(3)(iv) The source must establish a limit on minimum pH on an hourly rolling average as the average of the test run averages; | | | | |
| **1.C.6.c.5** 63.1209(o)(3)(v) The source must establish limits on either the minimum liquid to gas ratio or the minimum scrubber water flowrate and maximum flue gas flowrate on an hourly rolling average as the average of the test run averages. If the source establishes limits on maximum flue gas flowrate under this paragraph, it need not establish a limit on maximum flue gas flowrate under paragraph (o)(2) of this section; and | | | | |
| **1.C.6.c.6** 63.1209(o)(3)(vi) The source must establish a limit on minimum power input for ionizing wet scrubbers on an hourly rolling average as the average of the test run averages. | | | | |
| **1.C.6.d** 63.1209(o)(4) *Dry scrubber*. If the combustor is equipped with a dry scrubber, the source must establish the following operating parameter limits (See 1.A.26): | | | | |
| **1.C.6.d.1** 63.1209(o)(4)(i) *Minimum sorbent feedrate*. The source must establish a limit on minimum sorbent feedrate on an hourly rolling average as the average of the test run averages. | | | | |
| **1.C.6.d.2** 63.1209(o)(4)(ii) *Minimum carrier fluid flowrate or nozzle pressure drop*. The source must establish a limit on minimum carrier fluid (gas or liquid) flowrate or nozzle pressure drop based on manufacturer's specifications. | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **1.C.6.d.3** 63.1209(o)(4)(iii) *Sorbent specifications*. The source must specify and use the brand (i.e., manufacturer) and type of sorbent used during the comprehensive performance test until a subsequent comprehensive performance test is conducted, unless it documents in the site-specific performance test plan key parameters that affect adsorption and establish limits on those parameters based on the sorbent used in the performance test[8]. | | | | |
| **1.C.7** 63.1209(p) *Maximum combustion chamber pressure.* If the source complies with the requirements for combustion system leaks under §63.1206(c)(5) by maintaining the maximum combustion chamber zone pressure lower than ambient pressure (as opposed to the other two options of either sealing the combustion chamber or obtaining approval for an alternate technique), the source must monitor the pressure instantaneously and the automatic waste feed cutoff system must be engaged when negative pressure is not maintained at any time. | | | | |
| **1.C.8** 63.1209(q) *Operating under different modes of operation.* If the source operates under different modes of operation, it must establish operating parameter limits for each mode. The source must document in the operating record when it changes a mode of operation and begin complying with the operating parameter limits for an alternative mode of operation. | | | | |
| **1.C.8.a** 63.1209(q)(1) *Operating under otherwise applicable standards after the hazardous waste residence time has transpired*. As provided by 63.1206(b)(1)(ii), the source may operate under otherwise applicable requirements under sections 112 and 119 of the CAA in lieu of the substantive requirements of this subpart. | | | | |
| **1.C.8.a.1** 63.1209(q)(1)(i) The otherwise applicable requirements under sections 112 and 119 of the CAA, are applicable requirements under this subpart. | | | | |

[8]**Footnote to 1.C.6.d.3:** Under 63.1209(o)(4)(iii)(B), the source may substitute at any time a different brand or type of sorbent provided that the replacement has equivalent or improved properties compared to the sorbent used in the performance test and conforms to the key sorbent parameters the source identifies under chamber zone pressure lower than ambient pressure, the source must monitor the pressure instantaneously under paragraph (o)(4)(iii)(A) of this section. The source must record in the operating record documentation that the substitute sorbent will provide the same level of control as the original sorbent.

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **1.C.8.a.2** 63.1209(q)(1)(ii) The source must specify (e.g. , by reference) the otherwise applicable requirements as a mode of operation in its Documentation of Compliance under 63.1211(c), its Notification of Compliance under 63.1207(j), and its title V permit application. These requirements include the otherwise applicable requirements governing emission standards, monitoring and compliance, and notification reporting, and recordkeeping. | | | | |
| **1.C.8.b** 63.1209(q)(2) *Calculating rolling averages under different modes of operation.* When the source transitions to a different mode of operation, it must calculate rolling averages as follows; | | | | |
| **1.C.8.b.1** 63.1209(q)(2)(i**)** *Retrieval approach.* Calculate rolling averages anew using the continuous monitoring system values previously recorded for that mode of operation (i.e., you ignore continuous monitoring system values subsequently recorded under other modes of operation when you transition back to a mode of operation); or | | | | |
| **1.C.8.b.2** 63.1209(q)(2)(ii) *Start anew.* Calculate rolling averages anew without considering previous recordings. | | | | |
| **1.C.8.b.2.a** 63.1209(q)(2)(ii)(A) Rolling averages must be calculated as the average of the available one-minute values for the parameter until enough one-minute values are available to calculate hourly or 12-hour rolling averages, whichever is applicable to the parameter. | | | | |
| **1.C.8.b.2.b** 63.1209(q)(2)(ii)(B) A source may not transition to a new mode of operation using this approach if the most recent operation in that mode resulted in an exceedance of an applicable emission standard measured with a CEMS or operating parameter limit prior to the hazardous waste residence time expiring; or | | | | |
| **1.C.8.b.3** 63.1209(q)(2)(iii) *Seamless Transition.* Continue calculating rolling averages using data from the previous operating limit and the averaging period for the parameter are the same for both modes of operation. | | | | |
| **1.C.9** 63.1207(g)(1)(iii) *Steady-state conditions.* | | | | |
| **1.C.9.a** 63.1207(g)(1)(iii)(A) *Steady-State Conditions.* Prior to obtaining performance test data, the source must operate under performance test conditions until it reaches steadystate operations with respect to emissions of pollutants to be measured during the performance test and operating parameters under §63.1209 for which the source must establish limits. During system conditioning, the source must ensure that each operating parameter for which it must establish a limit is held at the level planned for the performance test. The source must include documentation in the performance test plan justifying the duration of system conditioning. | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **1.C.9.b** 63.1207(g)(1)(iii)(B) If the source owns or operates a hazardous waste cement kiln that recycles collected particulate matter (i.e., cement kiln dust) into the kiln, it must sample and analyze the recycled particulate matter prior to obtaining performance test data for levels of selected metals to be measured during performance testing to document that the system has reached steady-state conditions (i.e., that metals levels have stabilized). The source must document the rationale for selecting metals that are indicative of system equilibrium and include the information in the performance test plan under §63.1207(f). To determine system equilibrium, the source must sample and analyze the recycled particulate matter hourly for each selected metal, unless the source submits in the performance test plan a justification for reduced sampling and analysis and the Administrator approves in writing a reduced sampling and analysis frequency. | | | | |
| **1.D** *Continuous Monitoring Systems (CMS)* | | | | |
| **1.D.1** 63.8(c)(3) All CMS must be installed, operational, and the data verified as specified in the relevant standard either prior to or in conjunction with conducting performance tests. Verification of operational status must, at a minimum, include completion of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system | | | | |
| **1.D.2** 63.8(e) *Performance evaluation of continuous monitoring systems* | | | | |
| **1.D.2.a** 63.8(e)(1) and 1207(e)(1)(i) The owner or operator of an affected source being monitored must conduct a performance evaluation of the CMS. Such performance evaluation must be conducted according to the applicable specifications and procedures described in 63.8 or in the relevant standard. | | | | |
| **1.D.2.b** 63.8(e)(2) *Notification of performance evaluation.* The owner or operator must notify the Administrator in writing of the date of the performance evaluation simultaneously with the notification of the performance test date (or at least 60 days prior to the date the performance evaluation is scheduled to begin if no performance test is required). | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **1.D.2.c** 63.8(e)(3)(i) *Submission of site-specific performance evaluation test plan.* Before conducting a required CMS performance evaluation, the owner or operator of an affected source must develop and submit a site-specific performance evaluation test plan to the Administrator for approval[9]. The performance evaluation test plan must include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external QA program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data. | | | | |
| **1.D.2.d** 63.8(e)(3)(ii) The internal QA program must include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of CMS performance. The external QA program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities | | | | |
| | | | | |
| **2. *WAIVERS AND PETITIONS FOR ALTERNATE TESTING AND MONITORING*** | | | | |
| **2.A** *Waiver of performance test.* | | | | |
| **2.A.1** 63.7(h)(3)(iii) *General Performance Test Waiver* Any application for a waiver of a performance test shall include information justifying the owner's or operator's request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the affected source performing the required test. (See 63.7(h) for procedures associated with granting general performance test waivers) | | | | |

[9]**Footnote to 1.D.2.c**: 63.8(e)(3)(iii) The Administrator's review and approval of the performance evaluation test plan by the Administrator will occur with the review and approval of the site-specific test plan. Under 63.8(e)(3)(iv), the Administrator may request additional relevant information after the submittal of a site-specific performance evaluation test plan.

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **2.A.2** 63.1207(m)(2) *Low Metals / Chlorine Performance Test Waiver* The source is not required to conduct performance tests to document compliance with the mercury, semivolatile metal, low volatile metal or hydrochloric acid/chlorine gas emission standards under the conditions specified below. The source is deemed to be in compliance with an emission standard if the twelve-hour rolling average MTEC determined as specified below does not exceed the emission standard: | | | | |
| **2.A.2.a** 63.1207(m)(2)(i) Determine the feedrate of mercury, semivolatile metals, low volatile metals, or total chlorine and chloride from all feedstreams; | | | | |
| **2.A.2.b** 63.1207(m)(2)(ii) Determine the stack gas flowrate; and | | | | |
| **2.A.2.c** 63.1207(m)(2)(iii) Calculate a MTEC for each standard assuming all mercury, semivolatile metals, low volatile metals, or total chlorine (organic and inorganic) from all feedstreams is emitted; | | | | |
| **2.A.3** 63.1207(m)(3) To document compliance with this provision, the source must: | | | | |
| **2.A.3.a** 63.1207(m)(3)(i) Monitor and record the feedrate of mercury, semivolatile metals, low volatile metals, and total chlorine and chloride from all feedstreams according to §63.1209(c); | | | | |
| **2.A.3.b** 63.1207(m)(3)(ii) Monitor with a CMS and record in the operating record the gas flowrate (either directly or by monitoring a surrogate parameter that the source has correlated to gas flowrate); | | | | |
| **2.A.3.c** 63.1207(m)(3)(iii) Continuously calculate and record in the operating record the MTEC under the procedures of paragraph (m)(2) of this section; and | | | | |
| **2.A.3.d** 63.1207(m)(3)(iv) Interlock the MTEC calculated in paragraph (m)(2)(iii) of this section to the AWFCO system to stop hazardous waste burning when the MTEC exceeds the emission standard. | | | | |
| **2.A.4** 63.1207(m)(4) In lieu of the requirement in paragraph (m)(3)(iii) and (iv) of this section, the source may: | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **2.A.4.a** 63.1207(m)(4)(i) Identify in the notification of compliance a minimum gas flowrate limit and a maximum feedrate limit of mercury, semivolatile metals, low volatile metals, and/or total chlorine and chloride from all feedstreams that ensures the MTEC as calculated in paragraph (m)(2)(iii) of this section is below the applicable emission standard; and | | | | |
| **2.A.4.b** 63.1207(m)(4)(ii) Interlock the minimum gas flowrate limit and maximum feedrate limit in paragraph (m)(4)(i) of this section to the AWFCO system to stop hazardous waste burning when the gas flowrate or mercury, semivolatile metals, low volatile metals, and/or total chlorine and chloride feedrate exceeds the limit in paragraph (m)(4)(i). | | | | |
| **2.A.5** 63.1207(m)(5) When the source determines the feedrate of mercury, semivolatile metals, low volatile metals, or total chlorine and chloride for purposes of this provision, except as provided by paragraph (m)(6) of this section, the source must assume that the analyte is present at the full detection limit when the feedstream analysis determines that the analyte is not detected in the feedstream. | | | | |
| **2.A.6** 63.1207(m)(6) Owners and operators of hazardous waste burning cement kilns and lightweight aggregate kilns may assume that mercury is present in raw material at half the detection limit when the raw material feedstream analysis determines that mercury is not detected. | | | | |
| **2.A.7** 63.1207(m)(7) The source must state in the site-specific test plan that it intends to comply with the provisions of this paragraph. The source must include in the test plan documentation that any surrogate that is proposed for gas flowrate adequately correlates with the gas flowrate. | | | | |
| | | | | |
| **2.B** 63.1207(c)(2) *Data in lieu of the initial comprehensive performance test*. | | | | |
| **2.B.1** 63.1207(c)(2)(i) The source may request that previous emissions test data serve as documentation of conformance with the emission standards of this subpart provided that the previous testing : | | | | |
| **2.B.1.a** 63.1207(c)(2)(i)(A) Was initiated after 54 months prior to the compliance date, except as provided by paragraphs (c)(2)(iii) or (c)(2)(iv) below; | | | | |
| **2.B.1.b** 63.1207(c)(2)(i)(B) Results in data that meet quality assurance objectives (determined on a site-specific basis) such that the results demonstrate compliance with the applicable standards; | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **2.B.1.c** 63.1207(c)(2)(i)(C) Was in conformance with the requirements of 63.1207(g)(1); and | | | | |
| **2.B.1.d** 63.1207(c)(2)(i)(D) Was sufficient to establish the applicable operating parameter limits under §63.1209. | | | | |
| **2.B.2** 63.1207(c)(2)(ii) The source must submit data in lieu of the initial comprehensive performance test in lieu of (i.e., if the data are in lieu of all performance testing) or with the notification of performance test required under paragraph 63.1207(e). | | | | |
| **2.B.3** 63.1207 (c)(2)(iii) The source's date in lieu of test age restriction provided in paragraph 63.1207(c)(2)(i)(A) does not apply for the duration of the interim standards, and will not apply until EPA promulgates permanent replacement standards. | | | | |
| **2.B.4** 63.1207(c)(2)(iv) The source's data in lieu test age restriction provided in paragraph 63.1207(c)(2)(i)(A) does not apply to DRE data provided the source does not feed hazardous waste at a location in the combustion system other than the normal flame zone. | | | | |
| | | | | |
| **2.C** 63.1209(a)(5) *Petitions to use CEMS for other standards*. The source may petition the Administrator to use CEMS for compliance monitoring for particulate matter, mercury, semivolatile metals, low volatile metals, and hydrochloric acid/chlorine gas under 63.8(f) in lieu of compliance with the corresponding operating parameter limits under 63.1209. | | | | |
| | | | | |
| **2.D** 63.1209(g) *Alternative monitoring requirements other than continuous emissions monitoring systems (CEMS).* | | | | |
| **2.D.1** 63.1209(g)(1) *Requests to use alternative methods.* | | | | |
| **2.D.1.a** 63.1209(g)(1)(i) The source may submit an application to the Administrator under this paragraph for approval of alternative monitoring requirements to document compliance with the emission standards of this subpart. For requests to use additional CEMS, however, the source must use 63.1209(a)(5) and 63.8(f). Under 63.1209(g)(1)(i)(A) the Administrator will not approve averaging periods for operating parameter limits longer than specified in this section unless the source documents using data or information that the longer averaging period will ensure that emissions do not exceed levels achieved during the comprehensive performance test over any increment of time equivalent to the time required to conduct three runs of the performance test[10]. | | | | |

[10]**Footnote to 2.D.1.a:** Under 63.1209(g)(1)(i)(B), if the Administrator approves the application to use an alternative monitoring requirement, the source must continue to use that alternative monitoring requirement until it receives approval under this paragraph to use another monitoring requirement.

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **2.D.1.b** 63.1209(g)(1)(ii) The source may submit an application to waive an operating parameter limit specified in this section based on documentation that neither that operating parameter limit nor an alternative operating parameter limit is needed to ensure compliance with the emission standards of this subpart. | | | | |
| **2.D.1.c** 63.1209(g)(1)(iii) The source must comply with the following procedures for applications submitted under paragraphs (g)(1)(i) and (ii) of this section: | | | | |
| **2.D.1.c.1** 63.1209(g)(1)(iii)(A) *Timing of the application*. The source must submit the application to the Administrator not later than with the comprehensive performance test plan. | | | | |
| **2.D.1.c.2** 63.1209(g)(1)(iii)(B) *Content of the application*. The source must include in the application: | | | | |
| **2.D.1.c.2.a** 63.1209(g)(1)(iii)(B)(*1*) Data or information justifying the source's request for an alternative monitoring requirement (or for a waiver of an operating parameter limit), such as the technical or economic infeasibility or the impracticality of using the required approach; | | | | |
| **2.D.1.c.2.b** 63.1209(g)(1)(iii)(B)(*2*) A description of the proposed alternative monitoring requirement, including the operating parameter to be monitored, the monitoring approach/technique (e.g., type of detector, monitoring location), the averaging period for the limit, and how the limit is to be calculated; and | | | | |
| **2.D.1.c.2.c** 63.1209(g)(1)(iii)(B)(*3*) Data or information documenting that the alternative monitoring requirement would provide equivalent or better assurance of compliance with the relevant emission standard, or that it is the monitoring requirement that best assures compliance with the standard and that is technically and economically practicable | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **2.D.1.c.3** 63.1209(g)(1)(iii)(C) *Approval of request to use an alternative monitoring requirement or waive an operating parameter limit*. The Administrator will notify the source of approval or intention to deny approval of the request within 90 calendar days after receipt of the original request and within 60 calendar days after receipt of any supplementary information that the source submits. The Administrator will not approve an alternative monitoring request unless the alternative monitoring requirement provides equivalent or better assurance of compliance with the relevant emission standard, or is the monitoring requirement that best assures compliance with the standard and that is technically and economically practicable[11]. | | | | |
| | | | | |
| **2.E** 63.1206(b)(9) *Alternative standards for existing or new hazardous waste burning lightweight aggregate kilns using MACT* | | | | |
| **2.E.1** 63.1206(b)(9)(i) The source may petition[12] the Administrator to recommend alternative semivolatile metal, low volatile metal, mercury, or hydrochloric acid/chlorine gas emission standards if: | | | | |
| **2.E.1.a** 63.1206(b)(9)(i)(A) The source cannot achieve one or more of these standards while using maximum achievable control technology (MACT) because of the raw material contribution to emissions of the regulated metals or hydrochloric acid/chlorine gas; or | | | | |

[11]**Footnote to 2.D.1.c.3:** Before disapproving any request, the Administrator will notify the source of the Administrator's intention to disapprove the request together with: (*1*) Notice of the information and findings on which the intended disapproval is based; and (*2*) Notice of opportunity for the source to present additional information to the Administrator before final action on the request. At the time the Administrator notifies the source of intention to disapprove the request, the Administrator will specify how much time the source will have after being notified of the intended disapproval to submit the additional information. Under 63.1209(g)(1)(iii)(D), the source is responsible for ensuring that it submits any supplementary and additional information supporting the application in a timely manner to enable the Administrator to consider the application during review of the comprehensive performance test plan. Neither the source's submittal of an application, nor the Administrator's failure to approve or disapprove the application, relieves the source of the responsibility to comply with the provisions of this subpart.

[12]**Footnote to 2.E.1:** Under 63.1206(b)(9)(vii), the source must not operate pursuant to its recommended alternative standards in lieu of emission standards specified in 63.1205(a) and (b) unless the Administrator approves the provisions of the alternative standard petition request or establishes other alternative standards; and until the source submits a revised Notification of Compliance that incorporates the revised standards.

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **2.E.1.b** 63.1206(b)(9)(i)(B) The source determine that mercury is not present at detectable levels in the raw material. | | | | |
| **2.E.2** 63.1206(b)(9)(ii) The alternative standard that the source recommends under paragraph (b)(9)(i)(A) of this section may be an operating requirement, such as a hazardous waste feedrate limitation for metals and/or chlorine, and/or an emission limitation. | | | | |
| **2.E.3** 63.1206(b)(9)(iii) The alternative standard must include a requirement to use MACT, or better, applicable to the standard for which the source is seeking relief, as defined in paragraphs (b)(9)(viii) and (ix) of this section. | | | | |
| **2.E.4** 63.1206(b)(9)(iv) *Documentation required.* | | | | |
| **2.E.4.a** 63.1206(b)(9)(iv)(A) The alternative standard petition the source submits under 63.1206(b)(9)(i)(A) must include data or information documenting that raw material contributions to emissions of the regulated metals or hydrochloric acid/chlorine gas prevent the source from complying with the emission standard even though it is using MACT, as defined in 63.1206(b)(9)(viii) and (ix), for the standard for which the source is seeking relief. | | | | |
| **2.E.4.b** 63.1206(b)(9)(iv)(B) Alternative standard petitions that the source submits under 63.1206(b)(9)(i)(B) must include data or information documenting that mercury is not present at detectable levels in raw materials. | | | | |
| **2.E.5** 63.1206(b)(9)(v) The source must include data or information with semivolatile metal and low volatility metal alternative standard petitions that the source submits under 63.1206(b)(9)(i)(A) documenting that increased chlorine feedrates associated with the burning of hazardous waste, when compared to non-hazardous waste operations, do not significantly increase metal emissions attributable to raw materials. | | | | |
| **2.E.6** 63.1206(b)(9)(vi) The source must include data or information with semivolatile metal, low volatile metal, and hydrochloric acid/chlorine gas alternative standard petitions that the source submits under 63.1206(b)(9)(i)(A) documenting that semivolatile metal, low volatile metal, and hydrochloric acid/chlorine gas emissions attributable to the hazardous waste only will not exceed the emission standards in 63.1205(a) and (b). | | | | |
| **2.E.7** 63.1206(b)(9)(viii) For purposes of this alternative standard provision, MACT for existing hazardous waste burning lightweight aggregate kilns is defined as: | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **2.E.7.a** 63.1206(b)(9)(viii)(A) For mercury, a hazardous waste feedrate corresponding to an MTEC of 24 Fg/dscm or less; | | | | |
| **2.E.7.b** 63.1206(b)(9)(viii)(B) For semivolatile metals, a hazardous waste feedrate corresponding to an MTEC of 280,000 Fg/dscm or less, and use of a particulate matter control device that achieves particulate matter emissions of 57 mg/dscm or less | | | | |
| **2.E.7.c** 63.1206(b)(9)(viii)(C) For low volatile metals, a hazardous waste feedrate corresponding to an MTEC of 120,000 Fg/dscm or less, and use of a particulate matter control device that achieves particulate matter emissions of 57 mg/dscm or less; and | | | | |
| **2.E.7.d** 63.1206(b)(9)(viii)(D) For hydrochloric acid/chlorine gas, a hazardous waste chlorine feedrate corresponding to an MTEC of 2,000,000 Fg/dscm or less, and use of an air pollution control device with a hydrochloric acid/chlorine gas removal efficiency of 85 percent or greater. | | | | |
| **2.E.8** 63.1206(b)(9)(ix) For purposes of this alternative standard provision, MACT for new hazardous waste burning lightweight aggregate kilns is defined as: | | | | |
| **2.E.8.a** 63.1206(b)(9)(ix)(A) For mercury, a hazardous waste feedrate corresponding to an MTEC of 4 Fg/dscm or less; | | | | |
| **2.E.8.b** 63.1206(b)(9)(ix)(B) For semivolatile metals, a hazardous waste feedrate corresponding to an MTEC of 280,000 Fg/dscm or less, and use of a particulate matter control device that achieves particulate matter emissions of 57 mg/dscm or less; | | | | |
| **2.E.8.c** 63.1206(b)(9)(ix)(C) For low volatile metals, a hazardous waste feedrate corresponding to an MTEC of 46,000 Fg/dscm or less, and use of a particulate matter control device that achieves particulate matter emissions of 57 mg/dscm or less; | | | | |
| **2.E.8.d** 63.1206(b)(9)(ix)(D) For hydrochloric acid/chlorine gas, a hazardous waste chlorine feedrate corresponding to an MTEC of 14,000,000 Fg/dscm or less, and use of a wet scrubber with a hydrochloric acid/chlorine gas removal efficiency of 99.6 percent or greater. | | | | |
| | | | | |
| **2.F** 63.1206(b)(10) *Alternative standards for existing or new hazardous waste burning cement kilns using MACT* | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **2.F.1** 63.1206(b)(10)(i) The source may petition[13] the Administrator to recommend alternative semivolatile, low volatile metal, mercury, and/or hydrochloric acid/chlorine gas emission standards if: | | | | |
| **2.F.1.a** 63.1206(b)(10)(i)(A) The source cannot achieve one or more of these standards while using maximum achievable control technology (MACT) because of raw material contributions to emissions of the regulated metals or hydrochloric acid/chlorine gas; or | | | | |
| **2.F.1.b** 63.1206(b)(10)(i)(B) The source determines that mercury is not present at detectable levels in its raw material. | | | | |
| **2.F.2** 63.1206(b)(10)(ii) The alternative standard that the source recommends under paragraph 63.1206(b)(10)(i)(A) may be an operating requirement, such as a hazardous waste feedrate limitation for metals and/or chlorine, and/or an emission limitation | | | | |
| **2.F.3** 63.1206(b)(10)(iii) The alternative standard must include a requirement to use MACT, or better, applicable to the standard for which the source is seeking relief, as defined in paragraphs 63.1206(b)(10)(viii) and (ix). | | | | |
| **2.F.4** 63.1206(b)(10)(iv) *Documentation required* | | | | |
| **2.F.4.a** 63.1206(b)(10)(iv)(A) The alternative standard petition the source submits under paragraph 63.1206(b)(10)(i)(A) must include data or information documenting that raw material contributions to emissions prevent the source from complying with the emission standard even though it is using MACT, as defined in paragraphs 63.1206(b)(10)(viii) and (ix), for the standard for which it is seeking relief. | | | | |
| **2.F.4.b** 63.1206(b)(10)(iv)(B) Alternative standard petitions that the source submits under paragraph 63.1206(b)(10)(i)(B) must include data or information documenting that mercury is not present at detectable levels in raw materials. | | | | |

[13]**Footnote to 2.F.1** 63.1206(b)(10)(vii) The source must not operate pursuant to its recommended alternative standards in lieu of emission standards specified in 63.1204(a) and (b) unless the Administrator approves the provisions of the alternative standard petition request or establishes other alternative standards; and until the source submits a revised Notification of Compliance that incorporates the revised standards.

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **2.F.5** 63.1206(b)(10)(v) The source must include data or information with semivolatile metal and low volatile metal alternative standard petitions that the source submits under paragraph 63.1206(b)(10)(i)(A) documenting that increased chlorine feedrates associated with the burning of hazardous waste, when compared to non-hazardous waste operations, do not significantly increase metal emissions attributable to raw materials. | | | | |
| **2.F.6** 63.1206(b)(10)(vi) The source must include data or information with semivolatile metal, low volatile metal, and hydrochloric acid/chlorine gas alternative standard petitions that the source submits under paragraph (b)(10)(i)(A) of this section documenting that emissions of the regulated metals and hydrochloric acid/chlorine gas attributable to the hazardous waste only will not exceed the emission standards in 63.1204(a) and (b). | | | | |
| **2.F.7** 63.1206(b)(10)(viii) For purposes of this alternative standard provision, MACT for existing hazardous waste burning cement kilns is defined as: | | | | |
| **2.F.7.a** 63.1206(b)(10)(viii)(A) For mercury, a hazardous waste feedrate corresponding to an MTEC of 88 Fg/dscm or less; | | | | |
| **2.F.7.b** 63.1206(b)(10)(viii)(B) For semivolatile metals, a hazardous waste feedrate corresponding to an MTEC of 31,000 Fg/dscm or less, and use of a particulate matter control device that achieves particulate matter emissions of 0.15 kg/Mg dry feed or less; | | | | |
| **2.F.7.c** 63.1206(b)(10)(viii)(C) For low volatile metals, a hazardous waste feedrate corresponding to an MTEC of 54,000 Fg/dscm or less, and use of a particulate matter control device that achieves particulate matter emissions of 0.15 kg/Mg dry feed or less; and | | | | |
| **2.F.7.d** 63.1206(b)(10)(viii)(D) For hydrochloric acid/chlorine gas, a hazardous waste chlorine feedrate corresponding to an MTEC of 720,000 Fg/dscm or less. | | | | |
| **2.F.8** 63.1206(b)(10)(ix) For purposes of this alternative standard provision, MACT for new hazardous waste burning cement kilns is defined as: | | | | |
| **2.F.8.a** 63.1206(b)(10)(ix)(A) For mercury, a hazardous waste feedrate corresponding to an MTEC of 7 Fg/dscm or less; | | | | |
| **2.F.8.b** 63.1206(b)(10)(ix)(B) For semivolatile metals, a hazardous waste feedrate corresponding to an MTEC of 31,000 Fg/dscm or less, and use of a particulate matter control device that achieves particulate matter emissions of 0.15 kg/Mg dry feed or less; | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **2.F.8.c** 63.1206(b)(10)(ix)(C) For low volatile metals, a hazardous waste feedrate corresponding to an MTEC of 15,000 Fg/dscm or less, and use of a particulate matter control device that achieves particulate matter emissions of 0.15 kg/Mg dry feed or less; | | | | |
| **2.F.8.d** 63.1206(b)(10)(ix)(D) For hydrochloric acid/chlorine gas, a hazardous waste chlorine feedrate corresponding to an MTEC of 420,000 Fg/dscm or less. | | | | |
| | | | | |
| **2.G** 63.1206(b)(14) *Alternative to the particulate matter standard for incinerators*. | | | | |
| **2.G.1** 63.1206(b)(14)(i) *General*. In lieu of complying with the applicable particulate matter standard of 63.1203(a)(7) or (b)(7), existing and new incinerators may elect to instead comply with the alternative metal emission control requirements described in paragraph 63.1206(b)(14)(ii) or (b)(14)(iii), both of which set the particulate matter emission limit of 34 mg/dscm corrected to 7 percent oxygen. . | | | | |
| **2.G.2** 63.1206(b)(14)(ii) *Alternative metal emission control requirements for existing incinerators*. | | | | |
| **2.G.2.a** 63.1206(b)(14)(ii)(A) The source must not discharge or cause combustion gases to be emitted into the atmosphere that contain lead, cadmium, and selenium in excess of 240 ug/dscm, combined emissions, corrected t 7 percent oxygen; and, | | | | |
| **2.G.2.b** 63.1206(b)(14)(ii)(B) The source must not discharge or cause combustion gases to be emitted into the atmosphere that contain arsenic, beryllium, chromium, antimony, cobalt, manganese, and nickel in excess of 97 ug/dscm, combined emissions; and, | | | | |
| **2.G.2.c** 63.1206(b)(14)(ii)(C) The source must comply with the provisions specified in 63.1206(b)(14)(iv) below. | | | | |
| **2.G.3** 63.1206(b)(14)(iii) *Alternative metal emission control requirements for new incinerators*. | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **2.G.3.a** 63.1206(b)(14)(iii)(A) The source must not discharge or cause combustion gases to be emitted into the atmosphere that contain lead, cadmium, and selenium in excess of 24 ug/dscm, combined emissions, corrected to 7 percent oxygen; and, | | | | |
| **2.G.3.b** 63.1206(b)(14)(iii)(B) The source must not discharge or cause combustion gases to be emitted into the atmosphere that contain arsenic, beryllium, chromium, antimony, cobalt, manganese, and nickel in excess of 97 ug/dscm, combined emissions, corrected to 7 percent oxygen; and, | | | | |
| **2.G.3.c** 63.1206(b)(14)(iii)(C) The source must comply with 63.1206(b)(14)(iv) below. | | | | |
| **2.G.4** 63.1206(b)(14)(iv) *Other Requirements.* Existing and new incinerators must document in the operating record that they meet the requirements of paragraph (b)(14)(iv)(A)-(C), listed immediately below. | | | | |
| **2.G.4.a** 63.1206(b)(14)(iv)(A) The twelve-hour rolling average of the maximum theoretical emissions concentration for lead, cadmium, and selenium, combined, for the combined hazardous waste feedstreams to the incinerator, must not exceed: (1) 1,325 ug/dscm for existing incinerators; and (2) 875 ug/dscm for new incinerators. | | | | |
| **2.G.4.b** 63.1206(b)(14)(iv)(B) The twelve-hour rolling average of the maximum theoretical emissions concentration for arsenic, beryllium, chromium, antimony, cobalt, manganese, and nickel, combined, for the combined hazardous waste feedstreams to the incinerator, must not exceed: (1) 6,000 ug/dscm for existing incinerators; and (2) 3,250 ug/dscm for new incinerators. | | | | |
| **2.G.4.c** 63.1206(b)(14)(iv)(C) The source must document that its air pollution control system achieves at least a 90 percent system removal efficiency for semivolatile metals. To make this determination, the source may spike semivolatile metals above the applicable levels set forth in paragraphs 63.1206(b)(14)(iv)(A) or (B) provided that the applicable alternative emission limitation of paragraphs 63.1206(b)(14)(ii)(A) or (iii)(A) is attained during the test. This test may be performed independently of the comprehensive performance test and must be used to establish applicable operating parameter limits as described in 63.1209(n), not including 63.1209(n)(2), to ensure that a 90 percent semivolatile metal system removal efficiency is achieved during normal operations. | | | | |
| **2.G.5** 63.1206(b)(15) *Alternative to the interim standards for mercury for cement and lightweight aggregate kilns.* | | | | |
| **2.G.5.a** 63.1206(b)(15)(i) *General In Lieu of complying with the applicable mercury standards of 63.1204(a)(2) and (b)(2) for existing and new cement kilns and 63.1205(a)(2) and (b)(2) for existing and new lightweight aggregate kilns, the source may instead elect to comply with the alternative mercury standard described in 63.1206(b)(15)(ii)-(v), listed below:* | | | | |
| **2.G.5.b** 63.1206(b)(15)(ii) *Operating Requirements* The source must not exceed a hazardous waste feedrate corresponding to a maximum theoretical emission concentration (MTEC) of 120 ug/dscm on a twelve-hour rolling average. | | | | |
| **2.G.5.c** 63.1206(b)(15)(iii) To document compliance with the operating requirement of paragraph 63.1206(b)(15)(ii), the source must: | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **2.G.5.c.1** 63.1206(b)(15)(iii)(A) Monitor and record the feedrate of mercury for each hazardous waste feedstream according to 63.1209(c); | | | | |
| **2.G.5.c.2** 63.1206(b)(15)(iii)(B) Monitor with a CMS and record n the operating record the gas flowrate (either directly or by monitoring a surrogate parameter that you have correlated to gas flowrate); | | | | |
| **2.G.5.c.3** 63.1206(b)(15)(iii)(C) Continuously calculate and record in the operating record a MTEC assuming mercury from all hazardous waste feedstreams is emitted; | | | | |
| **2.G.5.c.4** 63.1206(b)(15)(iii)(D) Interlock the MTEC calculated under 63.1206(b)(15)(iii)(C) to the AWFCO system to stop hazardous waste burning when the MTEC exceeds the operating requirement of 63.1206(b)(15)(ii). | | | | |
| **2.G.5.d** 63.1206(b)(15)(iv) In lieu of the requirements of 63.1206(b)(15)(iii), the source may: | | | | |
| **2.G.5.d.1** 63.1206(b)(15)(iv)(A) Identify in the Notification of Compliance a minimum gas flowrate limit and a maximum feedrate limit f mercury from all hazardous waste feedstreams that ensures the MTEC calculated in paragraph 63.1206(b)(15)(iii)(C) is below the operating requirement of 63.1206(b)(15)(ii); and | | | | |
| **2.G.5.d.2** 63.1206(b)(15)(iv)(B) Interlock the minimum gas flowrate limit and maximum feedrate limits in 63.1206(b)(15)(iv)(A) to the AWFCO system to stop hazardous waste burning when the gas flowrate or mercury feedrate exceeds the limits in 63.1206(b)(15)(iv)(A). | | | | |
| **2.G.5.e** 63.1206(b)(15)(v) *Notification Requirement* The source must notify in writing the RCRA authority if it intends to comply with the alternative standard. | | | | |
| **2.H** 63.7(f) *Use of an alternative test method* | | | | |

| U.S. EPA Checklist for Review of Phase 1 HWC MACT Comprehensive Performance Test Plan – May 28, 2002 | | | | |
|---|---|---|---|---|
| **Requirement** | **Addressed Yes/No/NA** | **Location in Test Plan** | **Adequate Y/N** | **Comments** |
| **2.H.1** 63.7(f)(2) The owner or operator of an affected source required to do performance testing by a relevant standard may[14] use an alternative test method from that specified in the standard provided that the owner or operator: | | | | |
| **2.H.1.a** 63.7(f)(2)(i) Notifies the Administrator of his or her intention to use an alternative test method at least 60 days before the performance test is to begin. | | | | |
| **2.H.1.b** 63.7(f)(2)(ii) Uses Method 301 in Appendix A of Part 63 to validate the alternative test method. This may include the use of specific procedures of Method 301 if use of such procedures are sufficient to validate the alternative test method and; | | | | |
| **2.H.1.c** 63.7(f)(2)(iii) Submits the results of the Method 301 validation process along with the notification of intention and the justification for not using the specified test method. The owner or operator may submit the information required in this paragraph well in advance of the deadline specified in paragraph (f)(2)(i) of this section to ensure a timely review by the Administrator in order to meet the performance test date specified in this section or the Relevant standard. | | | | |

**Other Useful References for Developing or Reviewing a Comprehensive Performance Test Plan:**

Because CPT Plan requirements are generally similar to those for RCRA hazardous waste incinerator trial burns and BIF Certification of Compliance testing, guidance for those tests might be useful in developing or reviewing the CPT Plan. Important guidance on those RCRA tests can be found in:

• U.S. EPA, "Hazardous Waste Combustion Unit Permitting Manual, Component 1, How to Review a Trial Burn Plan," Center for Combustion Science and Engineering, Multi Media Planning and Permitting Division, EPA Region 6, December 1997.

• U.S. EPA, "Technical Implementation Document for EPA's Boiler and Industrial Furnace Regulations," EPA/530/R-92/011, PB 92-154947, March 1992.

• U.S. EPA, "Handbook: Guidance on Setting Permit Conditions and Reporting Trial Burn Results, Volume II of the Hazardous Waste Incineration Guidance Series," EPA/625/6-89/019, January 1989.

[14]**Footnote to 2.H.1**: Under 63.7(f)(3) and (4), the Administrator will determine whether the owner or operator's validation of the proposed alternative test method is adequate and issue an approval or disapproval of the alternative test method. If the source intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the source is authorized to conduct the performance test using an alternative test method after the Administrator approves the use of the alternative method. However, the source is authorized to conduct the performance test using an alternative method in the absence of notification of approval/disapproval 45 days after submission of the request to use an alternative test method and the request satisfies the requirements in 63.7(f)(2). The source or operator is authorized to conduct the performance test within 60 calendar days after he/she is authorized to demonstrate compliance using an alternative test method. Notwithstanding the requirements in the preceding three sentences, the source may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alternative. See 67 FR 16603. If the Administrator finds reasonable grounds to dispute the results obtained by an alternative test method for the purposes of demonstrating compliance with a relevant standard, the Administrator may require the use of a test method specified in a relevant standard. Until permission to use an alternative test method has been granted by the Administrator under 63.7(f), the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.