

## **Subpart HHH—Federal Plan Requirements for Hospital/Medical/Infectious Waste Incinerators Constructed On Or Before December 1, 2008**

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## APPLICABILITY

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### §62.14400 Am I subject to this subpart?

(a) You are subject to this subpart if paragraphs (a)(1), (2)(i) or (ii), and (3) of this section are all true:

(1) You own or operate an HMIWI that is not covered by an EPA approved and effective State or Tribal plan;

(2)(i) Construction of the HMIWI commenced on or before June 20, 1996, or modification of the HMIWI commenced on or before March 16, 1998; or

(ii) Construction of the HMIWI commenced after June 20, 1996 but no later than December 1, 2008, or modification of the HMIWI commenced after March 16, 1998 but no later than April 6, 2010; and

(3) You do not meet any of the exemptions in paragraph (b) of this section.

(b) The following exemptions apply:

If you . . .	And you . . .	And you . . .	Then you . . .
(1) Own or operate an HMIWI that combusts only pathological waste, low-level radioactive waste, and/or chemotherapeutic waste (all defined in 40 CFR 62.14490)	Notify the EPA Administrator (or delegated enforcement authority) of an exemption claim	Keep records on a calendar quarter basis of the periods of time when only pathological waste, low-level radio active waste, and/or chemo therapeutic waste is combusted, and you submit such records to the EPA Administrator (or delegated enforcement authority) upon request,	Are not subject to the other sections of this subpart during periods when only pathological, low-level radioactive, and/or chemotherapeutic wastes are combusted.
(2) Own or operate a co-fired combustor (defined in 40 CFR 62.14490)	Notify the EPA Administrator (or delegated enforcement authority) of an exemption claim and you provide an estimate of the relative weight of hospital waste, medical/infectious	Keep records on a calendar quarter basis of the weight of hospital waste and medical/infectious waste combusted as well as the weight of all other fuels and wastes combusted at the co-fired combustor, and these records reflect that the source continues to meet the definition of co-fired combustor in 40 CFR 62.14490, and you submit such records to the EPA	Are not subject to the other sections of this subpart.

	waste, and other fuels and/or wastes to be combusted	Administrator (or delegated enforcement authority) upon request	
(3) Own or operate a combustor that must have a permit under Section 3005 of the Solid Waste Disposal Act			Are not subject to this subpart.
(4) Own or operate a combustor which meets the applicability requirements of 40 CFR part 60 subpart Cb, Ea, or Eb (standards or guidelines for certain municipal waste combustors)			Are not subject to this subpart.
(5) Own or operate a pyrolysis unit (defined in 40 CFR 62.14490) processing hospital waste and/or medical/infectious waste			Are not subject to this subpart.
(6) Own or operate a cement kiln firing hospital waste and/or medical/infectious waste			Are not subject to this subpart.

(c) Owners or operators of sources that qualify for the exemptions in paragraphs (b)(1) or (2) of this section must submit records required to support their claims of exemption to the EPA Administrator (or delegated enforcement authority) upon request. Upon request by any person under the regulation at part 2 of this chapter (or a comparable law or regulation governing a delegated enforcement authority), the EPA Administrator (or delegated enforcement authority) must request the records in (b)(1) or (2) from an owner or operator and make such records available to the requestor to the extent required by part 2 of this chapter (or a comparable law governing a delegated enforcement authority). Records required under paragraphs (b)(1) and (2) of this section must be maintained by the source for a period of at least 5 years. Notifications of exemption claims required under paragraphs (b)(1) and (2) of

this section must be maintained by the EPA or delegated enforcement authority for as long as the source is operating under such exempt status. Any information obtained from an owner or operator of a source accompanied by a claim of confidentiality will be treated in accordance with the regulations in part 2 of this chapter (or a comparable law governing a delegated enforcement authority).

[65 FR 49881, Aug. 15, 2000, as amended at 78 FR 28066, May 13, 2013]

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## **§62.14401 How do I determine if my HMIWI is covered by an approved and effective State or Tribal plan?**

This part (40 CFR part 62) contains a list of all states and tribal areas with approved Clean Air Act (CAA) section 111(d)/129 plans in effect. However, this part is only updated once a year. Thus, if this part does not indicate that your state or tribal area has an approved and effective plan, you should contact your state environmental agency's air director or your EPA Regional Office to determine if approval occurred since publication of the most recent version of this part. A state may also meet its CAA section 111(d)/129 obligations by submitting an acceptable written request for delegation of the federal plan that meets the requirements of this section. This is the only other option for a state to meet its 111(d)/129 obligations.

(a) An acceptable Federal plan delegation request must include the following:

(1) A demonstration of adequate resources and legal authority to administer and enforce the Federal plan.

(2) The items under §§60.25(a) and 60.39e(c).

(3) Certification that the hearing on the state delegation request, similar to the hearing for a state plan submittal, was held, a list of witnesses and their organizational affiliations, if any, appearing at the hearing, and a brief written summary of each presentation or written submission.

(4) A commitment to enter into a Memorandum of Agreement with the Regional Administrator who sets forth the terms, conditions and effective date of the delegation and that serves as the mechanism for the transfer of authority. Additional guidance and information is given in the EPA's Delegation Manual, Item 7-139, Implementation and Enforcement of 111(d)(2) and 111(d)(2)/129(b)(3) Federal plans.

(b) A state with an already approved HMIWI CAA section 111(d)/129 state plan is not precluded from receiving EPA approval of a delegation request for the revised Federal plan, providing the requirements of paragraph (a) of this section are met, and at the time of the delegation request, the state also requests withdrawal of the EPA's previous state plan approval.

(c) A state's CAA section 111(d)/129 obligations are separate from its obligations under Title V of the CAA.

[78 FR 28066, May 13, 2013]

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### **§62.14402 If my HMIWI is not listed on the Federal plan inventory, am I exempt from this subpart?**

Not necessarily. Sources subject to this subpart include, but are not limited to, the inventory of sources listed in Docket ID Number EPA-HQ-OAR-2011-0405 for the federal plan. Review the applicability of §62.14400 to determine if you are subject to this subpart.

[78 FR 28066, May 13, 2013]

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### **§62.14403 What happens if I modify an existing HMIWI?**

(a) If you commenced modification (defined in 40 CFR 62.14490) of an existing HMIWI after April 6, 2010, you are subject to 40 CFR part 60, subpart Ec (40 CFR 60.50c through 60.58c), as amended, and you are not subject to this subpart, except as provided in paragraph (b) of this section.

(b) If you made physical or operational changes to your existing HMIWI solely for the purpose of complying with this subpart, these changes are not considered a modification and you are not subject to 40 CFR part 60, subpart Ec (40 CFR 60.50c through 60.58c), as amended. You remain subject to this subpart.

[78 FR 28067, May 13, 2013]

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## **EMISSION LIMITS**

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### **§62.14410 Are there different emission limits for different locations and sizes of HMIWI?**

Yes, there are different emission limits for small rural, small, medium, and large HMIWI. To determine the size category of your HMIWI, consult the definitions in 40 CFR 62.14490.

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### **§62.14411 What emission limits apply to my HMIWI?**

You must operate your HMIWI in compliance with the emission limit requirements for your HMIWI size category listed in table 1 of this subpart.

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## **§62.14412 What stack opacity and visible emissions requirements apply?**

(a) Your HMIWI (regardless of size category) must not discharge into the atmosphere from the stack any gases that exhibit greater than 6 percent opacity (6-minute block average).

(b) Your HMIWI as defined in §62.14400(a)(2)(ii) and utilizing a large HMIWI must not discharge into the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5 percent of the observation period (*i.e.*, 9 minutes per 3-hour period), as determined by EPA Reference Method 22 of 40 CFR part 60, appendix A-7, except as provided in paragraphs (b)(1) and (2) of this section.

(1) The emissions limit specified in paragraph (b) of this section does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the emissions limit does cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems.

(2) The provisions specified in paragraph (b) of this section do not apply during maintenance and repair of ash conveying systems. Maintenance and/or repair must not exceed 10 operating days per calendar quarter unless you obtain written approval from the state agency establishing a date when all necessary maintenance and repairs of ash conveying systems are to be completed.

[78 FR 28067, May 13, 2013]

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## **§62.14413 When do the emissions limits and stack opacity and visible emissions requirements apply?**

The emissions limits, stack opacity, and visible emissions requirements of this subpart apply at all times.

[78 FR 28067, May 13, 2013]

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## **OPERATOR TRAINING AND QUALIFICATION**

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### **§62.14420 Am I required to have a trained and qualified operator?**

You must have a fully trained and qualified HMIWI operator, either at your facility or able to be at your facility within 1 hour. The trained and qualified HMIWI operator may operate the HMIWI directly or be the direct supervisor of one or more HMIWI operators.

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### **§62.14421 How does an operator become trained and qualified?**

(a) The HMIWI operator can obtain training and qualification through a State-approved program or as provided in paragraph (b) of this section.

(b) If there are no State-approved training and qualification programs available or if your operator does not want to participate in a State-approved program, then your operator must complete a training course that includes the requirements in §62.14422 and satisfy the qualification requirements in §62.14423.

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### **§62.14422 What are the requirements for a training course that is not part of a State-approved program?**

A training course must include:

(a) Twenty-four hours of training that includes all of the following subjects:

- (1) Environmental concerns, including pathogen destruction and types of emissions;
- (2) Basic combustion principles, including products of combustion;
- (3) Operation of the type of incinerator to be used by the operator, including proper startup, waste charging, and shutdown procedures;
- (4) Combustion controls and monitoring;
- (5) Operation of air pollution control equipment and factors affecting performance (if applicable);
- (6) Methods to monitor pollutants (continuous emission monitoring systems and monitoring of HMIWI and air pollution control device operating parameters) and equipment calibration procedures (where applicable);
- (7) Inspection and maintenance of the HMIWI, air pollution control devices, and continuous emission monitoring systems;
- (8) Actions to correct malfunctions and conditions that may lead to malfunction;
- (9) Bottom and fly ash characteristics and handling procedures;
- (10) Applicable Federal, State, and local regulations;
- (11) Work safety procedures;
- (12) Prestartup inspections; and
- (13) Recordkeeping requirements; and
- (14) Training in waste segregation according to §62.14430(c)



- (b) An examination designed and administered by the instructor; and
- (c) Reference material distributed to the attendees covering the course topics.

[65 FR 49881, Aug. 15, 2000, as amended at 78 FR 28067, May 13, 2013]

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### **§62.14423 What are the qualification requirements for operators who do not participate in a State-approved program?**

(a) Operators who do not participate in a State-approved program must satisfy paragraphs (a)(1) and (2) of this section:

(1) The operator must complete a training course that satisfies the requirements in §62.14422; and

(2) The operator must have either 6 months experience as an HMIWI operator, 6 months experience as a direct supervisor of an HMIWI operator, or completion of at least two burn cycles under the observation and supervision of two qualified HMIWI operators.

(b) The operator's qualification is valid after paragraphs (a)(1) and (2) of this section are completed.

(c) To remain qualified, the operator must complete and pass an annual review or refresher course of at least 4 hours covering, at a minimum, the following:

- (1) Update of regulations;
- (2) Incinerator operation, including startup and shutdown procedures;
- (3) Inspection and maintenance;
- (4) Responses to malfunctions or conditions that may lead to malfunction; and
- (5) Discussion of operating problems encountered by attendees.

(d) If the operator's qualification lapses, he or she must renew it by one of the following methods:

(1) For a lapse of less than 3 years, complete and pass a standard annual refresher course described in paragraph (c) of this section;

(2) For a lapse of 3 years or more, complete and pass a training course with the minimum criteria described in §62.14422.

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### **§62.14424 What documentation must I maintain onsite?**

(a) You must maintain the following at the facility:

(1) Summary of the applicable standards under this subpart;

(2) Description of basic combustion theory applicable to an HMIWI;

(3) Procedures for receiving, handling, and charging waste;

(4) Procedures for startup, shutdown, and malfunction;

(5) Procedures for maintaining proper combustion air supply levels;

(6) Procedures for operating the HMIWI and associated air pollution control systems within the standards established under this subpart;

(7) Procedures for responding to malfunction or conditions that may lead to malfunction;

(8) Procedures for monitoring HMIWI emissions;

(9) Reporting and recordkeeping procedures; and

(10) Procedures for handling ash.

(b) You must keep the information listed in paragraph (a) of this section in a readily accessible location for all HMIWI operators. This information, along with records of training, must be available for inspection by the EPA or its delegated enforcement agent upon request.

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### **§62.14425 When must I review the documentation?**

(a) You must establish a program for reviewing the information listed in §62.14424 annually with each HMIWI operator (defined in §62.14490).

(b) You must conduct your initial review of the information listed in §62.14424 by [date 6 months after publication of final rule], or prior to assumption of responsibilities affecting HMIWI operation, whichever is later.

(c) You must conduct subsequent reviews of the information listed in §62.14424 annually.

[65 FR 49881, Aug. 15, 2000, as amended at 78 FR 28067, May 13, 2013]

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## **WASTE MANAGEMENT PLAN**

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### **§62.14430 Must I prepare a waste management plan?**

Yes. All HMIWI owners or operators must have a waste management plan.

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### **§62.14431 What must my waste management plan include?**

(a) Your waste management plan must identify both the feasibility of, and the approach for, separating certain components of solid waste from the health care waste stream in order to reduce the amount of toxic emissions from incinerated waste. The waste management plan you develop may address, but is not limited to, elements such as segregation and recycling of paper, cardboard, plastics, glass, batteries, food waste and metals (e.g., aluminum cans, metals-containing devices); segregation of non-recyclable wastes (e.g., polychlorinated biphenyl-containing waste, pharmaceutical waste, and mercury-containing waste such as dental waste); and purchasing recycled or recyclable products. Your waste management plan may include different goals or approaches for different areas or departments of the facility and need not include new waste management goals for every waste stream. When you develop your waste management plan, it should identify, where possible, reasonably available additional waste management measures, taking into account the effectiveness of waste management measures already in place, the costs of additional measures, the emissions reductions expected to be achieved, and any other potential environmental or energy impacts they might have. In developing your waste management plan, you must consider the American Hospital Association (AHA) publication titled "Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities." This publication (AHA Catalog Number 057007) is available for purchase from AHA Services, Inc., Post Office Box 933283, Atlanta, Georgia 31193-3283.

(b) If you own or operate commercial HMIWI, you must conduct training and education programs in waste segregation for each of your waste generator clients and ensure that each client prepares its own waste management plan that includes, but is not limited to, the provisions listed in this section.

(c) If you own or operate commercial HMIWI, you must conduct training and education programs in waste segregation for your HMIWI operators.

[78 FR 28067, May 13, 2013]

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### **§62.14432 When must my waste management plan be completed?**

As specified in §§62.14463 and 62.14464, you must submit your waste management plan with your initial report, which is due 60 days after you demonstrate initial compliance with the amended emissions limits, by conducting an initial performance test or submitting the results of previous emissions tests, provided the conditions in §62.14451(e) are met.

[78 FR 28067, May 13, 2013]

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## INSPECTION REQUIREMENTS

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### **§62.14440 Which HMIWI are subject to inspection requirements?**

(a) All HMIWI, including small rural HMIWI (defined in §62.14490) and each HMIWI (subject to emissions limits and visible emissions requirements in §§62.14411 and 62.14412) are subject to the HMIWI equipment inspection requirements.

(b) All HMIWI equipped with one or more air pollution control devices are subject to the air pollution control device inspection requirements.

[78 FR 28067, May 13, 2013]

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### **§62.14441 When must I inspect my HMIWI equipment and air pollution control devices?**

(a) You must inspect your large, medium, small or small rural HMIWI equipment by May 13, 2014.

(b) You must conduct inspections of your large, medium, small or small rural HMIWI equipment as outlined in §62.14442(a) annually (no more than 12 months following the initial inspection or previous annual HMIWI equipment inspection).

(c) You must inspect the air pollution control devices on your large, medium, small or small rural HMIWI by May 13, 2014.

(d) You must conduct the air pollution control device inspections on your large, medium, small or small rural HMIWI as outlined in §62.14442(b) annually (no more than 12 months following the initial inspection or previous annual air pollution control device inspection).

[78 FR 28067, May 13, 2013]

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### **§62.14442 What must my inspection include?**

(a) At a minimum, you must do the following during your HMIWI equipment inspection:

(1) Inspect all burners, pilot assemblies, and pilot sensing devices for proper operation, and clean pilot flame sensor as necessary;

(2) Check for proper adjustment of primary and secondary chamber combustion air, and adjust as necessary;

(3) Inspect hinges and door latches, and lubricate as necessary;

- (4) Inspect dampers, fans, and blowers for proper operation;
- (5) Inspect HMIWI door and door gaskets for proper sealing;
- (6) Inspect motors for proper operation;
- (7) Inspect primary chamber refractory lining, and clean and repair/replace lining as necessary;
- (8) Inspect incinerator shell for corrosion and/or hot spots;
- (9) Inspect secondary/tertiary chamber and stack, and clean as necessary;
- (10) Inspect mechanical loader, including limit switches, for proper operation, if applicable;
- (11) Visually inspect waste bed (grates), and repair/ seal, as necessary;
- (12) For the burn cycle that follows the inspection, document that the incinerator is operating properly and make any necessary adjustments;
- (13) Inspect air pollution control device(s) for proper operation, if applicable;
- (14) Inspect waste heat boiler systems to ensure proper operation, if applicable;
- (15) Inspect bypass stack components;
- (16) Ensure proper calibration of thermocouples, sorbent feed systems and any other monitoring equipment; and
- (17) Include inspection elements according to manufacturer's recommendations; and
- (18) Generally observe that the equipment is maintained in good operating condition.

(b) At a minimum, you must do the following during your air pollution control device inspection:

- (1) Inspect air pollution control device(s) for proper operation, if applicable;
- (2) Ensure proper calibration of thermocouples, sorbent feed systems and any other monitoring equipment; and
- (3) Include inspection elements according to manufacturer's recommendations; and
- (4) Generally observe that the equipment is maintained in good operating condition.

[65 FR 49881, Aug. 15, 2000, as amended at 78 FR 28068, May 13, 2013]

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**§62.14443 When must I do repairs?**

(a) You must complete any necessary repairs to the HMIWI equipment within 10 operating days of the HMIWI equipment inspection unless you obtain written approval from the EPA Administrator (or delegated enforcement authority) establishing a different date when all necessary repairs of your HMIWI equipment must be completed.

(b) You must complete any necessary repairs to the air pollution control device within 10 operating days of the air pollution control device inspection unless you obtain written approval from the EPA Administrator (or delegated enforcement authority) establishing a different date when all necessary repairs of your air pollution control device must be completed. During the time that you conduct repairs to your air pollution control device, all emissions standards remain in effect according to §62.14413.

[78 FR 28068, May 13, 2013]

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## **PERFORMANCE TESTING AND MONITORING REQUIREMENTS**

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### **§62.14450 [Reserved]**

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### **§62.14451 What are the testing requirements for HMIWI that are not small rural?**

(a) Except as specified in paragraph (e) of this section, you must conduct an initial performance test for PM, opacity, CO, dioxin/furan, HCl, Pb, Cd, Hg, SO<sub>2</sub>, NO<sub>x</sub> and fugitive ash emissions using the test methods and procedures outlined in §62.14452.

(b) After the initial performance test is completed or is required to be completed under §62.14470, whichever date comes first, you must:

(1) Determine compliance with the opacity limit by conducting an annual performance test (no more than 12 months following the previous performance test) using the applicable procedures and test methods listed in §62.14452.

(2) Determine compliance with the PM, CO, and HCl emission limits by conducting an annual performance test (no more than 12 months following the previous performance test) using the applicable procedures and test methods listed in §62.14452. If all three performance tests over a 3-year period indicate compliance with the emission limit for a pollutant (PM, CO, or HCl), you may forego a performance test for that pollutant for the next 2 years. At a minimum, you must conduct a performance test for PM, CO, and HCl every third year (no more than 36 months following the previous performance test). If a performance test conducted every third year indicates compliance with the emission limit for a pollutant (PM, CO, or HCl), you may forego a performance test for that pollutant for an additional 2 years. If any performance test indicates noncompliance with the respective emission limit, you must conduct a performance test for that pollutant annually until all annual performance tests over a 3-year period indicate compliance with the emission limit.

(3) If you use a large HMIWI that commenced construction or modification according to §62.14400(a)(2)(ii), determine compliance with the visible emissions limits for fugitive emissions from flyash/bottom ash storage and handling by conducting a performance test using EPA Reference Method 22 of 40 CFR part 60, appendix A-7 on an annual basis (no more than 12 months following the previous performance test).

(c) The 2,000 lb/wk limitation for small rural HMIWI does not apply during performance tests.

(d) The EPA Administrator may request a repeat performance test at any time.

(e) You may use the results of previous emissions tests to demonstrate compliance with the emissions limits, provided that the conditions in paragraphs (e)(1) through (3) of this section are met:

(1) Your previous emissions tests must have been conducted using the applicable procedures and test methods listed in §62.14452. Previous emissions test results obtained using the EPA-accepted voluntary consensus standards are also acceptable.

(2) The HMIWI at your facility must currently be operated in a manner (*e.g.*, with charge rate, secondary chamber temperature, etc.) that would be expected to result in the same or lower emissions than observed during the previous emissions test(s), and the HMIWI may not have been modified such that emissions would be expected to exceed the results from previous emissions test(s).

(3) The previous emissions test(s) must have been conducted in 1996 or later.

[65 FR 49881, Aug. 15, 2000, as amended at 78 FR 28068, May 13, 2013]

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## **§62.14452 What test methods and procedures must I use?**

You must use the following test methods and procedures to conduct performance tests to determine compliance with the emission limits:

(a) All performance tests must consist of a minimum of three test runs conducted under representative operating conditions;

(b) The minimum sample time must be 1 hour per test run unless otherwise indicated in this section;

(c) You must use EPA Reference Method 1 of 40 CFR part 60, appendix A-1 to select the sampling location and number of traverse points;

(d) You must use EPA Reference Method 3, 3A or 3B of 40 CFR part 60, appendix A-2 for gas composition analysis, including measurement of oxygen concentration. You must use EPA Reference Method 3, 3A or 3B of 40 CFR part 60, appendix A-2 simultaneously with each

reference method. You may use ASME PTC-19-10-1981-Part 10 (incorporated by reference in 40 CFR 60.17) as an alternative to EPA Reference Method 3B;

(e) You must adjust pollutant concentrations to 7 percent oxygen using the following equation:

$$C_{adj} = C_{meas} (20.9 - 7) / (20.9 - \%O_2) \quad (\text{Eq. 1})$$

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Where:

$C_{adj}$  = pollutant concentration adjusted to 7 percent oxygen;

$C_{meas}$  = pollutant concentration measured on a dry basis at standard conditions

$(20.9 - 7)$  = 20.9 percent oxygen—7 percent oxygen (defined oxygen correction basis);

20.9 = oxygen concentration in air, percent; and

$\%O_2$  = oxygen concentration measured on a dry basis at standard conditions, percent.

(f) You must use EPA Reference Method 5 of 40 CFR part 60, appendix A-3 or Method 26A or Method 29 of 40 CFR part 60, appendix A-8 to measure particulate matter (PM) emissions. You may use bag leak detection systems, as specified in §62.14454(e), or PM continuous emissions monitoring systems (CEMS), as specified in paragraph (o) of this section, as an alternative to demonstrate compliance with the PM emissions limit;

(g) You must use EPA Reference Method 6 or 6C of 40 CFR part 60, appendix A-4 to measure SO<sub>2</sub> emissions;

(h) You must use EPA Reference Method 7 or 7E of 40 CFR part 60, appendix A-4 to measure NO<sub>x</sub> emissions;

(i) You must use EPA Reference Method 9 of 40 CFR part 60, appendix A-4 to measure stack opacity. You may use bag leak detection systems, as specified in §62.14454(e), or PM CEMS, as specified in paragraph (o) of this section, as an alternative to demonstrate compliance with the opacity requirements;

(j) You must use EPA Reference Method 10 or 10B of 40 CFR part 60, appendix A-4 to measure the CO emissions. You may use CO CEMS, as specified in paragraph (o) of this section, as an alternative to demonstrate compliance with the CO emissions limit;

(k) You must use EPA Reference Method 23 of 40 CFR part 60, appendix A-7 to measure total dioxin/furan emissions. The minimum sample time must be 4 hours per test run. You may elect to sample dioxins/furans by installing, calibrating, maintaining and operating a continuous automated sampling system, as specified in paragraph (p) of this section, as an alternative to demonstrate compliance with the dioxin/furan emissions limit. If you have selected the toxic equivalency (TEQ) standards for dioxin/furans under §62.14411, you must use the following procedures to determine compliance:



(1) Measure the concentration of each dioxin/furan tetra-through octa-congener emitted using EPA Reference Method 23 of 40 CFR part 60, appendix A-7;

(2) For each dioxin/furan congener measured in accordance with paragraph (k)(1) of this section, multiply the congener concentration by its corresponding TEQ factor specified in Table 2 of this subpart;

(3) Sum the products calculated in accordance with paragraph (k)(2) of this section to obtain the total concentration of dioxins/furans emitted in terms of TEQ.

(l) You must use EPA Reference Method 26 or 26A of 40 CFR part 60, appendix A-8 to measure HCl emissions. You may use HCl CEMS as an alternative to demonstrate compliance with the HCl emissions limit;

(m) You must use EPA Reference Method 29 of 40 CFR part 60, appendix A-8 to measure Pb, Cd and Hg emissions. You may use ASTM D6784-02 (incorporated by reference in 40 CFR 60.17) as an alternative to EPA Reference Method 29 for measuring Hg emissions. You may also use Hg CEMS, as specified in paragraph (o) of this section, or a continuous automated sampling system for monitoring Hg emissions, as specified in paragraph (q) of this section, as an alternative to demonstrate compliance with the Hg emissions limit. You may use multi-metals CEMS, as specified in paragraph (o) of this section, as an alternative to EPA Reference Method 29 to demonstrate compliance with the Pb, Cd or Hg emissions limits;

(n) You must use EPA Reference Method 22 of 40 CFR part 60, appendix A-7 to measure fugitive ash emissions and determine compliance with the fugitive ash emissions limit, as applicable, under §60.52c(c). The minimum observation time must be a series of three 1-hour observations.

(o) If you are using a CEMS to demonstrate compliance with any of the emissions limits under §§62.14411 or 62.14412, you:

(1) Must determine compliance with the appropriate emissions limit(s) using a 12-hour rolling average, calculated as specified in section 12.4.1 of EPA Reference Method 19 of 40 CFR part 60, appendix A-7. Performance tests using EPA Reference Methods are not required for pollutants monitored with CEMS.

(2) Must operate a CEMS to measure oxygen concentration, adjusting pollutant concentrations to 7 percent oxygen as specified in paragraph (e) of this section.

(3) Must operate all CEMS in accordance with the applicable procedures under appendices B and F of 40 CFR part 60. For those CEMS for which performance specifications have not yet been promulgated (HCl, multi-metals), this option takes effect on the date a final performance specification is published in the FEDERAL REGISTER or the date of approval of a site-specific monitoring plan.

(4) May substitute use of a CO CEMS for the CO annual performance test and minimum secondary chamber temperature to demonstrate compliance with the CO emissions limit.

(5) May substitute use of an HCl CEMS for the HCl annual performance test, minimum HCl sorbent flow rate and minimum scrubber liquor pH to demonstrate compliance with the HCl emissions limit.

(6) May substitute use of a PM CEMS for the PM annual performance test and minimum pressure drop across the wet scrubber, if applicable, to demonstrate compliance with the PM emissions limit.

(p) If you are using a continuous automated sampling system to demonstrate compliance with the dioxin/furan emissions limits, you must record the output of the system and analyze the sample according to EPA Reference Method 23 of 40 CFR part 60, appendix A-7. This option to use a continuous automated sampling system takes effect on the date a final performance specification applicable to dioxin/furan from monitors is published in the FEDERAL REGISTER or the date of approval of a site-specific monitoring plan. If you elect to continuously sample dioxin/furan emissions instead of sampling and testing using EPA Reference Method 23 of 40 CFR part 60, appendix A-7, you must install, calibrate, maintain and operate a continuous automated sampling system and comply with the requirements specified in 40 CFR 60.58b(p) and (q) of subpart Eb.

(q) If you are using a continuous automated sampling system to demonstrate compliance with the Hg emissions limits, you must record the output of the system and analyze the sample at set intervals using any suitable determinative technique that can meet appropriate performance criteria. This option to use a continuous automated sampling system takes effect on the date a final performance specification applicable to Hg from monitors is published in the FEDERAL REGISTER or the date of approval of a site-specific monitoring plan. If you elect to continuously sample Hg emissions instead of sampling and testing using EPA Reference Method 29 of 40 CFR part 60, appendix A-8, or an approved alternative method for measuring Hg emissions, you must install, calibrate, maintain and operate a continuous automated sampling system and comply with the requirements specified in 40 CFR 60.58b(p) and (q) of subpart Eb.

(r) Use of the bypass stack during a performance test will invalidate the performance test.

[65 FR 49881, Aug. 15, 2000, as amended at 78 FR 28068, May 13, 2013]

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## **§62.14453 What must I monitor?**

(a) If your HMIWI uses combustion control only, or your HMIWI is equipped with a dry scrubber followed by a fabric filter (FF), a wet scrubber, a dry scrubber followed by a FF and wet scrubber, or a selective noncatalytic reduction (SNCR) system:

(1) You must establish the appropriate maximum and minimum operating parameters, indicated in Table 3, as site-specific operating parameters during the initial performance test to determine compliance with the emission limits; and

(2) After the date on which the initial performance test is completed or is required to be completed under §62.14470, whichever comes first, your HMIWI must not operate above any of the applicable maximum operating parameters or below any of the applicable minimum operating parameters listed in Table 3 and measured as 3-hour rolling averages (calculated each hour as the average of the previous 3 operating hours), at all times except during performance tests.

(b) If you are using an air pollution control device other than a dry scrubber followed by a FF, a wet scrubber, a dry scrubber followed by a FF and a wet scrubber, or a SNCR system to comply with the emissions limits under §62.14411, you must petition the EPA Administrator for site-specific operating parameters to be established during the initial performance test and you must continuously monitor those parameters thereafter. You may not conduct the initial performance test until the EPA Administrator has approved the petition.

[65 FR 49881, Aug. 15, 2000, as amended at 78 FR 28069, May 13, 2013]

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### **§62.14454 How must I monitor the required parameters?**

(a) Except as provided in §§62.14452(o) through (q), you must install, calibrate (to manufacturers' specifications), maintain and operate devices (or establish methods) for monitoring the applicable maximum and minimum operating parameters listed in Table 3 of this subpart (unless CEMS are used as a substitute for certain parameters as specified) such that these devices (or methods) measure and record values for the operating parameters at the frequencies indicated in Table 3 of this subpart at all times. For charge rate, the device must measure and record the date, time and weight of each charge fed to the HMIWI. This must be done automatically, meaning that the only intervention from an operator during the process would be to load the charge onto the weighing device. For batch HMIWI, the maximum charge rate is measured on a daily basis (the amount of waste charged to the unit each day).

(b) For all HMIWI, you must install, calibrate (to manufacturers' specifications), maintain and operate a device or method for measuring the use of the bypass stack, including the date, time and duration of such use.

(c) For all HMIWI, if you are using controls other than a dry scrubber followed by a FF, a wet scrubber, a dry scrubber followed by a FF and a wet scrubber, or a SNCR system to comply with the emissions limits under §62.14411, you must install, calibrate (to manufacturers' specifications), maintain and operate the equipment necessary to monitor the site-specific operating parameters developed pursuant to §62.14453(b).

(d) You must obtain monitoring data at all times during HMIWI operation except during periods of monitoring equipment malfunction, calibration, or repair. At a minimum, valid monitoring data must be obtained for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that your HMIWI is combusting hospital waste and/or medical/infectious waste.

(e) If you use an air pollution control device that includes a FF and are not demonstrating compliance using PM CEMS, you must determine compliance with the PM emissions limit using a bag leak detection system and meet the requirements in paragraphs (e)(1) through (12) of this section for each bag leak detection system.

(1) Each triboelectric bag leak detection system must be installed, calibrated, operated and maintained according to the "Fabric Filter Bag Leak Detection Guidance," (EPA-454/R-98-015, September 1997). This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality Planning and Standards; Sector Policies and Programs Division; Measurement Policy Group (D-243-02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emissions Measurement Center Continuous Emissions Monitoring. Other types of bag leak detection systems must be installed, operated, calibrated and maintained in a manner consistent with the manufacturer's written specifications and recommendations.

(2) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

(3) The bag leak detection system sensor must provide an output of relative PM loadings.

(4) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

(5) The bag leak detection system must be equipped with an audible alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.

(6) For positive pressure FF systems, a bag leak detector must be installed in each baghouse compartment or cell.

(7) For negative pressure or induced air FF, the bag leak detector must be installed downstream of the FF.

(8) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(9) The baseline output must be established by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time according to section 5.0 of the "Fabric Filter Bag Leak Detection Guidance."

(10) Following initial adjustment of the system, the sensitivity or range, averaging period, alarm set points or alarm delay time may not be adjusted. In no case may the sensitivity be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless such adjustment follows a complete FF inspection that demonstrates that the FF is in good operating condition. Each adjustment must be recorded.

(11) Record the results of each inspection, calibration and validation check.

(12) Initiate corrective action within 1 hour of a bag leak detection system alarm; operate and maintain the FF such that the alarm is not engaged for more than 5 percent of the total operating time in a 6-month block reporting period. If inspection of the FF demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm is counted as a minimum of 1 hour. If it takes longer than 1 hour to initiate corrective action, the alarm time is counted as the actual amount of time taken to initiate corrective action.

[65 FR 49881, Aug. 15, 2000, as amended at 78 FR 28070, May 13, 2013]

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### §62.14455 What if my HMIWI goes outside of a parameter limit?

(a) Operation above the established maximum or below the established minimum operating parameter(s) constitutes a violation of established operating parameter(s). Operating parameter limits do not apply during performance tests.

(b) Except as provided in paragraph (g) or (h) of this section, if your HMIWI uses combustion control only:

And your HMIWI . . .	Then you are in violation of . . .
Operates above the maximum charge rate (3-hour rolling average for continuous and intermittent HMIWI, daily average for batch HMIWI) and below the minimum secondary chamber temperature (3-hour rolling average) simultaneously	The PM, CO and dioxin/furan emissions limits.

(c) Except as provided in paragraph (f) or (g) of this section, if your HMIWI is equipped with a dry scrubber followed by a FF:

And your HMIWI . . .	Then you are in violation of . . .
(1) Operates above the maximum charge rate (3-hour rolling average for continuous and intermittent HMIWI, daily average for batch HMIWI) and below the minimum secondary chamber temperature (3-hour rolling average) simultaneously	The CO emissions limit.
(2) Operates above the maximum FF inlet temperature (3-hour rolling average), above the maximum charge rate (3-hour rolling average for continuous and intermittent HMIWI, daily average for batch HMIWI), and below the minimum dioxin/furan sorbent flow rate (3-hour rolling average) simultaneously	The dioxin/furan emissions limit.
(3) Operates above the maximum charge rate (3-hour rolling average for continuous and intermittent HMIWI, daily average for batch HMIWI) and below the minimum HCl sorbent flow rate (3-hour rolling average) simultaneously	The HCl emissions limit.
(4) Operates above the maximum charge rate (3-hour rolling average for continuous and intermittent HMIWI, daily average for batch HMIWI) and below the minimum Hg sorbent flow rate (3-hour rolling average) simultaneously	The Hg emissions limit.
(5) Uses the bypass stack	The PM,

	dioxin/furan, HCl, Pb, Cd and Hg emissions limits.
(6) Operates above the CO emissions limit as measured by a CO CEMS, as specified in §62.14452(o)	The CO emissions limit.
(7) Uses a bag leak detection system, as specified in §62.14454(e), to demonstrate compliance with the PM emissions limit and either fails to initiate corrective action within 1 hour of a bag leak detection system alarm or fails to operate and maintain the FF such that the alarm is not engaged for more than 5 percent of the total operating time in a 6-month block reporting period	The PM emissions limit. <sup>a</sup>
(8) Uses a bag leak detection system, as specified in §62.14454(e), to demonstrate compliance with the opacity limit and either fails to initiate corrective action within 1 hour of a bag leak detection system alarm or fails to operate and maintain the FF such that the alarm is not engaged for more than 5 percent of the total operating time in a 6-month block reporting period	The opacity limit. <sup>a</sup>
(9) Operates above the PM emissions limit as measured by a PM CEMS, as specified in §62.14452(o)	The PM emissions limit.
(10) Operates above the HCl emissions limit as measured by an HCl CEMS, as specified in §62.14452(o)	The HCl emissions limit.
(11) Operates above the Pb emissions limit as measured by a multi-metals CEMS, as specified in §62.14452(o)	The Pb emissions limit.
(12) Operates above the Cd emissions limit as measured by a multi-metals CEMS, as specified in §62.14452(o)	The Cd emissions limit.
(13) Operates above the Hg emissions limit as measured by a multi-metals CEMS, as specified in §62.14452(o)	The Hg emissions limit.
(14) Operates above the dioxin/furan emissions limit as measured by a continuous automated sampling system, as specified in §62.14452(p)	The dioxin/furan emissions limit.
(15) Operates above the Hg emissions limit as measured by a continuous automated sampling system, as specified in §62.14452(q)	The Hg emissions limit.

<sup>a</sup>If inspection of the FF demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm is counted as a minimum of 1 hour. If it takes longer than 1 hour to initiate corrective action, the alarm time is counted as the actual amount of time taken to initiate corrective action.

(d) Except as provided in paragraph (g) or (h) of this section, if your HMIWI is equipped with a wet scrubber:

<b>And your HMIWI . . .</b>	<b>Then you are in violation of</b>
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	. . .
(1) Operates above the maximum charge rate (3-hour rolling average for continuous and intermittent HMIWI, daily average for batch HMIWI) and below the minimum secondary chamber temperature (3-hour rolling average) simultaneously	The CO emissions limit.
(2) Operates above the maximum charge rate (3-hour rolling average for continuous and intermittent HMIWI, daily average for batch HMIWI) and below the minimum pressure drop across the wet scrubber (3-hour rolling average) or below the minimum horsepower or amperage to the system (3-hour rolling average) simultaneously	The PM emissions limit.
(3) Operates above the maximum charge rate (3-hour rolling average for continuous and intermittent HMIWI, daily average for batch HMIWI), below the minimum secondary chamber temperature (3-hour rolling average), and below the minimum scrubber liquor flow rate (3-hour rolling average) simultaneously	The dioxin/furan emissions limit.
(4) Operates above the maximum charge rate (3-hour rolling average for continuous and intermittent HMIWI, daily average for batch HMIWI) and below the minimum scrubber liquor pH (3-hour rolling average) simultaneously	The HCl emissions limit.
(5) Operates above the maximum flue gas temperature (3-hour rolling average) and above the maximum charge rate (3-hour rolling average for continuous and intermittent HMIWI, daily average for batch HMIWI) simultaneously	The Hg emissions limit.
(6) Uses the bypass stack	The PM, dioxin/furan, HCl, Pb, Cd and Hg emissions limits.
(7) Operates above the CO emissions limit as measured by a CO CEMS, as specified in §62.14452(o)	The CO emissions limit.
(8) Operates above the PM emissions limit as measured by a PM CEMS, as specified in §62.14452(o)	The PM emissions limit.
(9) Operates above the HCl emissions limit as measured by an HCl CEMS, as specified in §62.14452(o)	The HCl emissions limit.
(10) Operates above the Pb emissions limit as measured by a multi-metals CEMS, as specified in §62.14452(o)	The Pb emissions limit.
(11) Operates above the Cd emissions limit as measured by a multi-metals CEMS, as specified in §62.14452(o)	The Cd emissions limit.
(12) Operates above the Hg emissions limit as measured by a multi-metals CEMS, as specified in §62.14452(o)	The Hg emissions limit.
(13) Operates above the dioxin/furan emissions limit as measured by a continuous automated sampling system, as specified in §62.14452(p)	The dioxin/furan emissions limit.
(14) Operates above the Hg emissions limit as measured by a continuous automated sampling system, as specified in §62.14452(q)	The Hg emissions limit.

(e) Except as provided in paragraph (g) or (h) of this section, if your HMIWI is equipped with a dry scrubber followed by a FF and a wet scrubber:

<p style="text-align: center;"><b>And your HMIWI . . .</b></p>	<p style="text-align: center;"><b>Then you are in violation of . . .</b></p>
(1) Operates above the maximum charge rate (3-hour rolling average for continuous and intermittent HMIWI, daily average for batch HMIWI) and below the minimum secondary chamber temperature (3-hour rolling average) simultaneously	The CO emissions limit.
(2) Operates above the maximum fabric filter inlet temperature (3-hour rolling average), above the maximum charge rate (3-hour rolling average for continuous and intermittent HMIWI, daily average for batch HMIWI), and below the minimum dioxin/furan sorbent flow rate (3-hour rolling average) simultaneously	The dioxin/furan emissions limit.
(3) Operates above the maximum charge rate (3-hour rolling average for continuous and intermittent HMIWI, daily average for batch HMIWI) and below the minimum scrubber liquor pH (3-hour rolling average) simultaneously	The HCl emissions limit.
(4) Operates above the maximum charge rate (3-hour rolling average for continuous and intermittent HMIWI, daily average for batch HMIWI) and below the minimum Hg sorbent flow rate (3-hour rolling average) simultaneously	The Hg emissions limit.
(5) Uses the bypass stack	The PM, dioxin/furan, HCl, Pb, Cd and Hg emissions limits.
(6) Operates above the CO emissions limit as measured by a CO CEMS, as specified in §62.14452(o)	The CO emissions limit.
(7) Uses a bag leak detection system, as specified in §62.14454(e), to demonstrate compliance with the PM emissions limit and either fails to initiate corrective action within 1 hour of a bag leak detection system alarm or fails to operate and maintain the FF such that the alarm is not engaged for more than 5 percent of the total operating time in a 6-month block reporting period	The PM emissions limit. <sup>a</sup>
(8) Uses a bag leak detection system, as specified in §62.14454(e), to demonstrate compliance with the opacity limit and either fails to initiate corrective action within 1 hour of a bag leak detection system alarm or fails to operate and maintain the FF such that the alarm is not engaged for more than 5 percent of the total operating time in a 6-month block reporting period	The opacity limit. <sup>a</sup>
(9) Operates above the PM emissions limit as measured by a PM CEMS, as specified in §62.14452(o)	The PM emissions limit.
(10) Operates above the HCl emissions limit as measured by an HCl CEMS, as specified in §62.14452(o)	The HCl emissions limit.
(11) Operates above the Pb emissions limit as measured by a multi-metals CEMS, as specified in §62.14452(o)	The Pb emissions limit.
(12) Operates above the Cd emissions limit as measured by a multi-metals CEMS, as specified in §62.14452(o)	The Cd emissions limit.



(13) Operates above the Hg emissions limit as measured by a multi-metals CEMS, as specified in §62.14452(o)	The Hg emissions limit.
(14) Operates above the dioxin/furan emissions limit as measured by a continuous automated sampling system, as specified in §62.14452(p)	The dioxin/furan emissions limit.
(15) Operates above the Hg emissions limit as measured by a continuous automated sampling system, as specified in §62.14452(q)	The Hg emissions limit.

<sup>a</sup>If inspection of the FF demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm is counted as a minimum of 1 hour. If it takes longer than 1 hour to initiate corrective action, the alarm time is counted as the actual amount of time taken to initiate corrective action.

(f) Except as provided in paragraph (g) or (h) of this section, if your HMIWI is equipped with a SNCR system:

And your HMIWI . . .	Then you are in violation of . . .
Operates above the maximum charge rate (3-hour rolling average for continuous and intermittent HMIWI, daily average for batch HMIWI), below the minimum secondary chamber temperature (3-hour rolling average), and below the minimum reagent flow rate (3-hour rolling average) simultaneously	The NO <sub>x</sub> emissions limit.

(g) You may conduct a repeat performance test within 30 days of violation of applicable operating parameter(s) to demonstrate that your HMIWI is not in violation of the applicable emissions limit(s). You must conduct repeat performance tests pursuant to this paragraph using the identical operating parameters that indicated a violation under paragraph (b), (c), (d), (e), or (f) of this section.

(h) If you are using a CEMS to demonstrate compliance with any of the emissions limits in table 1 of this subpart or §62.14412, and your CEMS indicates compliance with an emissions limit during periods when operating parameters indicate a violation of an emissions limit under paragraphs (b), (c), (d), (e) or (f) of this section, then you are considered to be in compliance with the emissions limit. You need not conduct a repeat performance test to demonstrate compliance.

(i) You may conduct a repeat performance test in accordance with §62.14452 at any time to establish new values for the operating parameters.

[65 FR 49881, Aug. 15, 2000, as amended at 78 FR 28070, May 13, 2013]

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## REPORTING AND RECORDKEEPING REQUIREMENTS

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## §62.14460 What records must I maintain?

You must maintain the following:

- (a) Calendar date of each record;
  - (b) Records of the following data:
    - (1) Concentrations of any pollutant listed in table 1, measurements of opacity and visible ash;
    - (2) The HMIWI charge dates, times, and weights and hourly charge rates;
    - (3) Fabric filter inlet temperatures during each minute of operation, as applicable;
    - (4) Amount and type of dioxin/furan sorbent used during each hour of operation, as applicable;
    - (5) Amount and type of Hg sorbent used during each hour of operation, as applicable;
    - (6) Amount and type of HCl sorbent used during each hour of operation, as applicable;
    - (7) Amount and type of NO<sub>x</sub> reagent used during each hour of operation, as applicable;
    - (8) Secondary chamber temperatures recorded during each minute of operation;
    - (9) Liquor flow rate to the wet scrubber inlet during each minute of operation, as applicable,
    - (10) Horsepower or amperage to the wet scrubber during each minute of operation, as applicable;
    - (11) Pressure drop across the wet scrubber system during each minute of operation, as applicable;
    - (12) Temperature at the outlet from the wet scrubber during each minute of operation, as applicable;
    - (13) The pH at the inlet to the wet scrubber during each minute of operation, as applicable;
    - (14) Records of the annual equipment inspections, any required maintenance, and any repairs not completed within 10 operating days of an inspection or the time frame established by the EPA Administrator or delegated enforcement authority, as applicable;
    - (15) Records indicating use of the bypass stack, including dates, times, and durations;
- and

(16) All operating parameter data collected, if you are complying by monitoring site-specific operating parameters under §62.14453(b).

(17) Concentrations of CO, PM, HCl, Pb, Cd, Hg and dioxin/furan, as applicable, as determined by the CEMS or continuous automated sampling system, as applicable.

(18) Records of the annual air pollution control device inspections, any required maintenance and any repairs not completed within 10 days of an inspection or the timeframe established by the Administrator.

(19) Records of each bag leak detection system alarm, the time of the alarm, the time corrective action was initiated and completed and a brief description of the cause of the alarm and the corrective action taken, as applicable.

(c) Identification of calendar days for which data on emissions rates or operating parameters specified under paragraph (b)(1) through (19) of this section were not obtained, with an identification of the emissions rates or operating parameters not measured, reasons for not obtaining the data, and a description of corrective actions taken;

(d) Identification of calendar days, times and durations of malfunctions, and a description of the malfunction and the corrective action taken.

(e) Identification of calendar days for which data on emissions rates or operating parameters specified under paragraphs (b)(1) through (19) of this section exceeded the applicable limits, with a description of the exceedances, reasons for such exceedances and a description of corrective actions taken.

(f) The results of the initial, annual and any subsequent performance tests conducted to determine compliance with the emissions limits and/or to establish or re-establish operating parameters, as applicable, including sample calculations, of how the operating parameters were established or re-established, if applicable.

(g) Records showing the names of HMIWI operators who have completed review of the documentation in §62.14424 as required by §62.14425, including the date of the initial review and all subsequent annual reviews;

(h) Records showing the names of the HMIWI operators who have completed the operator training requirements, including documentation of training and the dates of the training;

(i) Records showing the names of the HMIWI operators who have met the criteria for qualification under §62.14423 and the dates of their qualification; and

(j) Records of calibration of any monitoring devices as required under §62.14454.

[65 FR 49881, Aug. 15, 2000, as amended at 78 FR 28073, May 13, 2013]

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## **§62.14461 For how long must I maintain records?**

You must maintain the records specified under §62.14460 for a period of at least 5 years.

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## **§62.14462 Where must I keep the records?**

You must maintain all records specified under §62.14460 onsite in either paper copy or computer-readable format, unless an alternative format is approved by the EPA Administrator.

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## **§62.14463 What reporting requirements must I satisfy?**

(a) You must report the following to the EPA Administrator (or delegated enforcement authority):

(1) The initial performance test data as recorded under §62.14451(a);

(2) The values for the site-specific operating parameters established pursuant to §62.14453, as applicable, and a description, including sample calculations, of how the operating parameters were established during the initial performance test;

(3) The waste management plan as specified in §62.14431;

(4) If you use a bag leak detection system, analysis and supporting documentation demonstrating conformance with the EPA guidance and specifications for bag leak detection systems in §62.14454(e);

(5) The highest maximum operating parameter and the lowest minimum operating parameter, as applicable, for each operating parameter recorded for the calendar year being reported, pursuant to §62.14453, as applicable;

(6) The highest maximum operating parameter and the lowest minimum operating parameter, as applicable, for each operating parameter recorded pursuant to §62.14453 for the calendar year preceding the year being reported, in order to provide a summary of the performance of the HMIWI over a 2-year period;

(7) Any information recorded under §62.14460(c) through (e) for the calendar year being reported;

(8) Any information recorded under §62.14460(c) through (e) for the calendar year preceding the year being reported, in order to provide a summary of the performance of the HMIWI over a 2-year period;

(9) The results of any performance test conducted during the reporting period;

(10) If no exceedances or malfunctions occurred during the calendar year being reported, a statement that no exceedances occurred during the reporting period;

(11) Any use of the bypass stack, duration of such use, reason for malfunction and corrective action taken;

(12) Records of the annual equipment inspections, any required maintenance and any repairs not completed within 10 days of an inspection or the time frame established by the EPA Administrator (or delegated enforcement authority);

(13) Records of the annual air pollution control device inspections, any required maintenance and any repairs not completed within 10 days of an inspection or the time frame established by the EPA Administrator (or delegated enforcement authority);

(14) Concentrations of CO, PM, HCl, Pb, Cd, Hg and dioxin/furan, as applicable, as determined by the CEMS or continuous automated sampling system, as applicable; and

(15) Petition for site-specific operating parameters under §62.14453(b).

(b) If you choose to submit an electronic copy of stack test reports to the EPA's WebFIRE database, as of December 31, 2011, you must enter the test data into the EPA's database using the Electronic Reporting Tool (ERT) located at [http://www.epa.gov/ttn/chief/ert/ert\\_\\_tool.html](http://www.epa.gov/ttn/chief/ert/ert__tool.html).

[65 FR 49881, Aug. 15, 2000, as amended at 78 FR 28073, May 13, 2013]

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## **§62.14464 When must I submit reports?**

(a) You must submit the information specified in §62.14463(a)(1) through (4) no later than 60 days following the initial performance test.

(b) You must submit an annual report to the EPA Administrator (or delegated enforcement authority) no more than 1 year following the submission of the information in paragraph (a) of this section, and you must submit subsequent reports no more than 1 year following the previous report (once the unit is subject to permitting requirements under Title V of the CAA, you must submit these reports semiannually). The annual report must include the information specified in §62.14463(a)(5) through (14), as applicable.

(c) You must submit semiannual reports containing any information recorded under §62.14460(c) through (e) no later than 60 days following the end of the semiannual reporting period. The first semiannual reporting period ends 6 months following the submission of information in paragraph (a) of this section. Subsequent reports must be submitted no later than 6 calendar months following the previous report.

(d) You must submit your petition for site-specific operating parameters specified in §62.14463(a)(15) prior to your initial performance test. You may not conduct the initial performance test until the EPA Administrator has approved the petition.

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### **§62.14465 Who must sign all submitted reports?**

All reports must be signed by the facilities manager (defined in §62.14490).

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## **COMPLIANCE SCHEDULE**

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### **§62.14470 When must I comply with this subpart if I plan to continue operation of my HMIWI?**

If you plan to continue operation of your HMIWI, then you must follow the requirements in paragraph (a) or (b) of this section depending on when you plan to come into compliance with the requirements of this subpart.

(a) If you plan to continue operation and come into compliance with the requirements of this subpart by May 13, 2014, then you must complete the requirements of paragraphs (a)(1) through (a)(4) of this section.

(1) You must comply with the operator training and qualification requirements and inspection requirements (if applicable) of this subpart by May 13, 2014.

(2) You must achieve final compliance by May 13, 2014. This includes incorporating all process changes and/or completing retrofit construction, connecting the air pollution control equipment or process changes such that the HMIWI is brought online, and ensuring that all necessary process changes and air pollution control equipment are operating properly.

(3) You must conduct the initial performance test required by §62.14451(a) within 180 days after the date when you are required to achieve final compliance under paragraph (a)(2) of this section.

(4) You must submit an initial report including the results of the initial performance test and the waste management plan no later than 60 days following the initial performance test (see §§62.14463 and 62.14464 for complete reporting and recordkeeping requirements).

(b) If you plan to continue operation and come into compliance with the requirements of this subpart after May 13, 2014, but before October 6, 2014, then you must complete the requirements of paragraphs (b)(1) through (4) of this section.

(1) You must comply with the operator training and qualification requirements and inspection requirements (if applicable) of this subpart by May 13, 2014.

(2) You must demonstrate that you are taking steps towards compliance with the emission limits in the subpart by completing the increments of progress in paragraphs (b)(2)(i) through (b)(2)(v) of this section. You must submit notification to the EPA Administrator (or delegated enforcement authority) within 10 business days of completing (or failing to complete by the applicable date) each of the increments of progress listed in paragraphs (b)(2)(i) through (b)(2)(v) of this section. Your notification must be signed by your facilities manager (defined in §62.14490).

(i) You must submit a final control plan by August 13, 2013. Your final control plan must, at a minimum, include a description of the air pollution control device(s) or process changes that will be employed for each unit to comply with the emissions limits and other requirements of this subpart.

(ii) You must award contract(s) for on-site construction, on-site installation of emissions control equipment or incorporation of process changes by December 13, 2013. You must submit a signed copy of the contract(s) awarded.

(iii) You must begin on-site construction, begin on-site installation of emissions control equipment or begin process changes needed to meet the emissions limits as outlined in the final control plan by January 6, 2014.

(iv) You must complete on-site construction, installation of emissions control equipment or process changes by August 6, 2014.

(v) You must achieve final compliance by October 6, 2014. This includes incorporating all process changes and/or completing retrofit construction as described in the final control plan, connecting the air pollution control equipment or process changes such that the HMIWI is brought online and ensuring that all necessary process changes and air pollution control equipment are operating properly.

(3) You must conduct the initial performance test required by §62.14451(a) within 180 days after the date when you are required to achieve final compliance under paragraph (b)(2)(v) of this section.

(4) You must submit an initial report including the result of the initial performance test and the waste management plan no later than 60 days following the initial performance test (see §§62.14463 and 62.14464 for complete reporting and recordkeeping requirements).

[65 FR 49881, Aug. 15, 2000, as amended at 78 FR 28074, May 13, 2013; 78 FR 54766, Sept. 6, 2013]

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### **§62.14471 When must I comply with this subpart if I plan to shut down?**

If you plan to shut down, then you must follow the requirements in either paragraph (a) or (b) of this section depending on when you plan to shut down.

(a) If you plan to shutdown by May 13, 2014, rather than come into compliance with the requirements of this subpart, then you must shutdown by May 13, 2014, to avoid coverage under any of the requirements of this subpart.

(b) If you plan to shutdown rather than come into compliance with the requirements of this subpart but are unable to shutdown by [May 13, 2014, then you may petition the EPA for an extension by following the procedures outlined in paragraphs (b)(1) through (3) of this section.

(1) You must submit your request for an extension to the EPA Administrator (or delegated enforcement authority) by [date 90 days after publication of final rule]. Your request must include:

(i) Documentation of the analyses undertaken to support your need for an extension, including an explanation of why your requested extension date is sufficient time for you to shutdown while May 13, 2014, does not provide sufficient time for shutdown. Your documentation must include an evaluation of the option to transport your waste offsite to a commercial medical waste treatment and disposal facility on a temporary or permanent basis; and

(ii) Documentation of incremental steps of progress, including dates for completing the increments of progress, that you will take towards shutting down. Some suggested incremental steps of progress towards shut down are provided as follows:

If you . . .	Then your increments of progress could be . . .
Need an extension so you can install an onsite alternative waste treatment technology before you shut down your HMIWI,	Date when you will enter into a contract with an alternative treatment technology vendor,
	Date for initiating onsite construction or installation of the alternative technology, and
	Date for completing onsite construction or installation of the alternative technology, and
	Date for shutting down the HMIWI.
Need an extension so you can acquire the services of a commercial medical/infectious waste disposal company before you shut down your HMIWI,	
	Date when price quotes will be obtained from commercial disposal companies,
	Date when you will enter into a contract with a commercial disposal company, and
	Date for shutting down the HMIWI.

(2) You must shutdown no later than October 6, 2014.



(3) You must comply with the operator training and qualification requirements and inspection requirements (if applicable) of this subpart by May 13, 2014.

[65 FR 49881, Aug. 15, 2000, as amended at 78 FR 28074, May 13, 2013]

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### **§62.14472 When must I comply with this subpart if I plan to shut down and later restart?**

If you wish to shut down and later restart, then you must follow the compliance times in paragraph (a), (b), or (c) of this section depending on when you shut down and restart.

(a) If you plan to shutdown and restart prior to October 6, 2014, then you must:

(1) Meet the compliance schedule outlined in §63.14470(a) if you restart prior to May 13, 2014; or

(2) Meet the compliance schedule outlined in §62.14470(b) if you restart after May 13, 2014. Any missed increments of progress need to be completed prior to or upon the date of restart.

(b) If you plan to shutdown by May 13, 2014, and restart after October 6, 2014, then you must complete the requirements of paragraphs (b)(1) through (b)(5) of this section.

(1) You must shutdown by May 13, 2014.

(2) You must comply with the operator training and qualification requirements and inspection requirements (if applicable) of this subpart before restarting your HMIWI.

(3) You must achieve final compliance upon restarting your HMIWI. This includes incorporating all process changes and/or completing retrofit construction, connecting the air pollution control equipment or process changes such that the HMIWI is brought on line, and ensuring that all necessary process changes and air pollution control equipment are operating properly.

(4) You must conduct the initial performance test required by §62.14451(a) within 180 days after the date when you restart.

(5) You must submit an initial report including the results of the initial performance test and the waste management plan no later than 60 days following the initial performance test (see §§62.14463 and 62.14464 for complete reporting and recordkeeping requirements).

(c) If you plan to shutdown after May 13, 2014, and restart after October 6, 2014, then you must complete the requirements of paragraphs (c)(1) and (2) of this section.

(1) You must petition the EPA for an extension by following the procedures outlined in §63.14471(b)(1) through (3).

(2) You must comply with the requirements of paragraphs (b)(2) through (b)(5) of this section.

[65 FR 49881, Aug. 15, 2000, as amended at 78 FR 28075, May 13, 2013]

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## **PERMITTING OBLIGATION**

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### **§62.14480 Does this subpart require me to obtain an operating permit under title V of the Clean Air Act and implementing regulations?**

This subpart requires you to obtain an operating permit under title V of the Clean Air Act and implementing regulations (“title V permit”) unless you are only subject to the recordkeeping and reporting requirements listed at §62.14400(b)(1) or (b)(2), and §62.14400(c), of this subpart. Also, if you own or operate a unit described in §62.14400(b)(3), (b)(4), (b)(5) or (b)(6), you are not subject to any requirements of this subpart; therefore, this subpart does not require you to obtain a title V permit.

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### **§62.14481 When must I submit a title V permit application for my HMIWI?**

You must submit a title V permit application in time for it to be determined or deemed complete by no later than September 15, 2000 or by the effective date of a title V permits program in the jurisdiction in which the unit is located, whichever is later. (An earlier deadline may apply if your HMIWI is also subject to title V permitting requirements because of some other triggering requirement.) A “complete” title V permit application is one that has been approved by the appropriate permitting authority as complete under Section 503 of the Clean Air Act and 40 CFR parts 70 and 71. It is not enough to have submitted a title V permit application by September 15, 2000 because the application must be determined or deemed complete by the permitting authority by that date for your HMIWI to operate after that date in compliance with Federal law.

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## **DEFINITIONS**

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### **§62.14490 Definitions.**

*Bag leak detection system* means an instrument that is capable of monitoring PM loadings in the exhaust of a FF in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light-scattering, light-transmittance or other effects to monitor relative PM loadings.

*Batch HMIWI* means an HMIWI that is designed such that neither waste charging nor ash removal can occur during combustion.

*Biologicals* means preparations made from living organisms and their products, including vaccines, cultures, etc., intended for use in diagnosing, immunizing, or treating humans or animals or in research pertaining thereto.

*Blood products* means any product derived from human blood, including but not limited to blood plasma, platelets, red or white blood corpuscles, and other derived licensed products, such as interferon, etc.

*Body fluids* means liquid emanating or derived from humans and limited to blood; dialysate; amniotic, cerebrospinal, synovial, pleural, peritoneal and pericardial fluids; and semen and vaginal secretions.

*Bypass stack* means a device used for discharging combustion gases to avoid severe damage to the air pollution control device or other equipment.

*Chemotherapeutic waste* means waste material resulting from the production or use of antineoplastic agents used for the purpose of stopping or reversing the growth of malignant cells.

*Co-fired combustor* means a unit combusting hospital waste and/or medical/infectious waste with other fuels or wastes (e.g., coal, municipal solid waste) and subject to an enforceable requirement limiting the unit to combusting a fuel feed stream, 10 percent or less of the weight of which is comprised, in aggregate, of hospital waste and medical/infectious waste as measured on a calendar quarter basis. For purposes of this definition, pathological waste, chemotherapeutic waste, and low-level radioactive waste are considered "other" wastes when calculating the percentage of hospital waste and medical/infectious waste combusted.

*Commercial HMIWI* means a HMIWI which offers incineration services for hospital/medical/infectious waste generated offsite by firms unrelated to the firm that owns the HMIWI.

*Continuous emission monitoring system* or *CEMS* means a monitoring system for continuously measuring and recording the emissions of a pollutant.

*Continuous HMIWI* means an HMIWI that is designed to allow waste charging and ash removal during combustion.

*Dioxins/furans* means the combined emissions of tetra-through octa-chlorinated dibenzo-para-dioxins and dibenzofurans, as measured by EPA Reference Method 23.

*Dry scrubber* means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gases in the HMIWI exhaust stream forming a dry powder material.

*Fabric filter* or *baghouse* means an add-on air pollution control system that removes particulate matter (PM) and nonvaporous metals emissions by passing flue gas through filter bags.

*Facilities manager* means the individual in charge of purchasing, maintaining, and operating the HMIWI or the owner's or operator's representative responsible for the management of the HMIWI. Alternative titles may include director of facilities or vice president of support services.

*High-air phase* means the stage of the batch operating cycle when the primary chamber reaches and maintains maximum operating temperatures.

*Hospital* means any facility which has an organized medical staff, maintains at least six inpatient beds, and where the primary function of the institution is to provide diagnostic and therapeutic patient services and continuous nursing care primarily to human inpatients who are not related and who stay on average in excess of 24 hours per admission. This definition does not include facilities maintained for the sole purpose of providing nursing or convalescent care to human patients who generally are not acutely ill but who require continuing medical supervision.

*Hospital/medical/infectious waste incinerator* or *HMIWI* or *HMIWI unit* means any device that combusts any amount of hospital waste and/or medical/infectious waste.

*Hospital/medical/infectious waste incinerator operator* or *HMIWI operator* means any person who operates, controls or supervises the day-to-day operation of an HMIWI.

*Hospital waste* means discards generated at a hospital, except unused items returned to the manufacturer. The definition of hospital waste does not include human corpses, remains, and anatomical parts that are intended for interment or cremation.

*Infectious agent* means any organism (such as a virus or bacteria) that is capable of being communicated by invasion and multiplication in body tissues and capable of causing disease or adverse health impacts in humans.

*Intermittent HMIWI* means an HMIWI that is designed to allow waste charging, but not ash removal, during combustion.

*Large HMIWI* means:

(1) Except as provided in paragraph (2) of this definition;

(i) An HMIWI whose maximum design waste burning capacity is more than 500 pounds per hour; or

(ii) A continuous or intermittent HMIWI whose maximum charge rate is more than 500 pounds per hour; or

(iii) A batch HMIWI whose maximum charge rate is more than 4,000 pounds per day.

(2) The following are not large HMIWI:

(i) A continuous or intermittent HMIWI whose maximum charge rate is less than or equal to 500 pounds per hour; or

(ii) A batch HMIWI whose maximum charge rate is less than or equal to 4,000 pounds per day.

*Low-level radioactive waste* means waste material which contains radioactive nuclides emitting primarily beta or gamma radiation, or both, in concentrations or quantities that exceed applicable federal or State standards for unrestricted release. Low-level radioactive waste is not high-level radioactive waste, spent nuclear fuel, or by-product material as defined by the Atomic Energy Act of 1954 (42 U.S.C. 2014(e)(2)).

*Malfunction* means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused, in part, by poor maintenance or careless operation are not malfunctions. During periods of malfunction the operator must operate within established parameters as much as possible, and monitoring of all applicable operating parameters must continue until all waste has been combusted or until the malfunction ceases, whichever comes first.

*Maximum charge rate* means:

(1) For continuous and intermittent HMIWI, 110 percent of the lowest 3-hour average charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.

(2) For batch HMIWI, 110 percent of the lowest daily charge rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.

*Maximum design waste burning capacity* means:

(1) For intermittent and continuous HMIWI,

$$C = P_v \times 15,000 / 8,500 \text{ (Eq. 2)}$$

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*Where:*

C = HMIWI capacity, lb/hr

$P_v$  = primary chamber volume, ft<sup>3</sup>

15,000 = primary chamber heat release rate factor, Btu/ft<sup>3</sup>/hr

8,500 = standard waste heating value, Btu/lb;

(2) For batch HMIWI,

$$C = P_v \times 4.5 / 8 \text{ (Eq. 3)}$$

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Where:

C = HMIWI capacity, lb/hr

$P_V$  = primary chamber volume, ft<sup>3</sup>

4.5 = waste density, lb/ft<sup>3</sup>

8 = typical hours of operation of a batch HMIWI, hours.

*Maximum fabric filter inlet temperature* means 110 percent of the lowest 3-hour average temperature at the inlet to the fabric filter (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the dioxin/furan emission limit.

*Maximum flue gas temperature* means 110 percent of the lowest 3-hour average temperature at the outlet from the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the mercury (Hg) emission limit.

*Medical/infectious waste* means any waste generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals that is listed in paragraphs (1) through (7) of this definition. The definition of medical/infectious waste does not include hazardous waste identified or listed under the regulations in part 261 of this chapter; household waste, as defined in §261.4(b)(1) of this chapter; ash from incineration of medical/infectious waste, once the incineration process has been completed; human corpses, remains, and anatomical parts that are intended for interment or cremation; and domestic sewage materials identified in §261.4(a)(1) of this chapter.

(1) Cultures and stocks of infectious agents and associated biologicals, including: Cultures from medical and pathological laboratories; cultures and stocks of infectious agents from research and industrial laboratories; wastes from the production of biologicals; discarded live and attenuated vaccines; and culture dishes and devices used to transfer, inoculate, and mix cultures.

(2) Human pathological waste, including tissues, organs, and body parts and body fluids that are removed during surgery or autopsy, or other medical procedures, and specimens of body fluids and their containers.

(3) Human blood and blood products including:

(i) Liquid waste human blood;

(ii) Products of blood;

(iii) Items saturated and/or dripping with human blood; or

(iv) Items that were saturated and/or dripping with human blood that are now caked with dried human blood; including serum, plasma, and other blood components, and their containers, which were used or intended for use in either patient care, testing and laboratory analysis or the development of pharmaceuticals. Intravenous bags are also include in this category.

(4) Sharps that have been used in animal or human patient care or treatment or in medical, research, or industrial laboratories, including hypodermic needles, syringes (with or without the attached needle), Pasteur pipettes, scalpel blades, blood vials, needles with attached tubing, and culture dishes (regardless of presence of infectious agents). Also included are other types of broken or unbroken glassware that were in contact with infectious agents, such as used slides and cover slips.

(5) Animal waste including contaminated animal carcasses, body parts, and bedding of animals that were known to have been exposed to infectious agents during research (including research in veterinary hospitals), production of biologicals or testing of pharmaceuticals.

(6) Isolation wastes including biological waste and discarded materials contaminated with blood, excretions, exudates, or secretions from humans who are isolated to protect others from certain highly communicable diseases, or isolated animals known to be infected with highly communicable diseases.

(7) Unused sharps including the following unused, discarded sharps: hypodermic needles, suture needles, syringes, and scalpel blades.

*Medium HMIWI* means:

(1) Except as provided in paragraph (2) of this definition;

(i) An HMIWI whose maximum design waste burning capacity is more than 200 pounds per hour but less than or equal to 500 pounds per hour; or

(ii) A continuous or intermittent HMIWI whose maximum charge rate is more than 200 pounds per hour but less than or equal to 500 pounds per hour; or

(iii) A batch HMIWI whose maximum charge rate is more than 1,600 pounds per day but less than or equal to 4,000 pounds per day.

(2) The following are not medium HMIWI:

(i) A continuous or intermittent HMIWI whose maximum charge rate is less than or equal to 200 pounds per hour or more than 500 pounds per hour; or

(ii) A batch HMIWI whose maximum charge rate is more than 4,000 pounds per day or less than or equal to 1,600 pounds per day.

*Minimum dioxin/furan sorbent flow rate* means 90 percent of the highest 3-hour average dioxin/furan sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the dioxin/furan emission limit.

*Minimum Hg sorbent flow rate* means 90 percent of the highest 3-hour average Hg sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the Hg emission limit.

*Minimum horsepower or amperage* means 90 percent of the highest 3-hour average horsepower or amperage to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the applicable emission limits.

*Minimum hydrogen chloride (HCl) sorbent flow rate* means 90 percent of the highest 3-hour average HCl sorbent flow rate (taken, at a minimum, once every hour) measured during the most recent performance test demonstrating compliance with the HCl emission limit.

*Minimum pressure drop across the wet scrubber* means 90 percent of the highest 3-hour average pressure drop across the wet scrubber PM control device (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the PM emission limit.

*Minimum reagent flow rate* means 90 percent of the highest 3-hour average reagent flow rate at the inlet to the SNCR technology (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the NO<sub>x</sub> emissions limit.

*Minimum scrubber liquor flow rate* means 90 percent of the highest 3-hour average liquor flow rate at the inlet to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with all applicable emission limits.

*Minimum scrubber liquor pH* means 90 percent of the highest 3-hour average liquor pH at the inlet to the wet scrubber (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the HCl emission limit.

*Minimum secondary chamber temperature* means 90 percent of the highest 3-hour average secondary chamber temperature (taken, at a minimum, once every minute) measured during the most recent performance test demonstrating compliance with the PM, CO, dioxin/furan or NO<sub>x</sub> emissions limits.

*Modification or Modified HMIWI* means any change to a HMIWI unit after April 6, 2010, such that:

(1) The cumulative costs of the modifications, over the life of the unit, exceed 50 percent of the original cost of the construction and installation of the unit (not including the cost of any land purchased in connection with such construction or installation) updated to current costs, or



(2) The change involves a physical change in or change in the method of operation of the unit which increases the amount of any air pollutant emitted by the unit for which standards have been established under section 129 or section 111.

*Operating day* means a 24-hour period between 12:00 midnight and the following midnight during which any amount of hospital waste or medical/infectious waste is combusted at any time in the HMIWI.

*Operation* means the period during which waste is combusted in the incinerator excluding periods of startup or shutdown.

*Particulate matter* or *PM* means the total particulate matter emitted from an HMIWI as measured by EPA Reference Method 5 or EPA Reference Method 29.

*Pathological waste* means waste material consisting of only human or animal remains, anatomical parts, and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable).

*Primary chamber* means the chamber in an HMIWI that receives waste material, in which the waste is ignited, and from which ash is removed.

*Pyrolysis* means the endothermic gasification of hospital waste and/or medical/infectious waste using external energy.

*Secondary chamber* means a component of the HMIWI that receives combustion gases from the primary chamber and in which the combustion process is completed.

*Shutdown* means the period of time after all waste has been combusted in the primary chamber. For continuous HMIWI, shutdown must commence no less than 2 hours after the last charge to the incinerator. For intermittent HMIWI, shutdown must commence no less than 4 hours after the last charge to the incinerator. For batch HMIWI, shutdown must commence no less than 5 hours after the high-air phase of combustion has been completed.

*Small HMIWI* means:

(1) Except as provided in paragraph (2) of this definition;

(i) An HMIWI whose maximum design waste burning capacity is less than or equal to 200 pounds per hour; or

(ii) A continuous or intermittent HMIWI whose maximum charge rate is less than or equal to 200 pounds per hour; or

(iii) A batch HMIWI whose maximum charge rate is less than or equal to 1,600 pounds per day.

(2) The following are not small HMIWI:

(i) A continuous or intermittent HMIWI whose maximum charge rate is more than 200 pounds per hour;

(ii) A batch HMIWI whose maximum charge rate is more than 1,600 pounds per day.

*Small rural HMIWI* means a small HMIWI which is located more than 50 miles from the boundary of the nearest Standard Metropolitan Statistical Area and which burns less than 2,000 pounds per week of hospital waste and medical/ infectious waste.

*Standard conditions* means a temperature of 20 °C and a pressure of 101.3 kilopascals.

*Standard Metropolitan Statistical Area* or *SMSA* means any areas listed in OMB Bulletin No. 93-17 entitled "Revised Statistical Definitions for Metropolitan Areas" dated June 30, 1993. This information can also be obtained from the nearest Metropolitan Planning Organization.

*Startup* means the period of time between the activation of the system and the first charge to the unit. For batch HMIWI, startup means the period of time between activation of the system and ignition of the waste.

*Wet scrubber* means an add-on air pollution control device that utilizes an alkaline scrubbing liquor to collect particulate matter (including nonvaporous metals and condensed organics) and/or to absorb and neutralize acid gases.

[65 FR 49881, Aug. 15, 2000, as amended at 78 FR 28075, May 13, 2013]

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## **DELEGATION OF AUTHORITY**

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### **§62.14495 What authorities will be retained by the EPA Administrator?**

The following authorities will be retained by the EPA Administrator and not transferred to the State or Tribe:

(a) The requirements of §62.14453(b) establishing operating parameters when using controls other than a dry scrubber followed by a fabric filter, a wet scrubber, or a dry scrubber followed by a fabric filter and a wet scrubber.

(b) Approval of alternative methods of demonstrating compliance under 40 CFR 60.8, including:

(1) Approval of CEMS for PM, HCl, multi-metals and Hg where used for purposes of demonstrating compliance,

(2) Approval of continuous automated sampling systems for dioxin/furan and Hg where used for purposes of demonstrating compliance, and

- (3) Approval of major alternatives to test methods;
- (c) Approval of major alternatives to monitoring;
- (d) Waiver of recordkeeping requirements; and
- (e) Performance test and data reduction waivers under 40 CFR 60.8(b).

[65 FR 49881, Aug. 15, 2000, as amended at 78 FR 28075, May 13, 2013]

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**Table 1 to Subpart HHH of Part 62—Emission Limits for Small Rural, Small, Medium, and Large HMIWI**

For the air pollutant	You must meet this emissions limit				With these units (7 percent oxygen, dry basis)	Using this averaging time <sup>a</sup>	And determining compliance using this method <sup>b</sup>
	HMIWI size						
	Small rural	Small	Medium	Large			
Particulate matter	87 (0.038)	66 (0.029)	46 (0.020) <sup>c</sup> 34 (0.015) <sup>d</sup>	25 (0.011)	Milligrams per dry standard cubic meter (grains per dry standard cubic foot)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 5 of appendix A-3 of part 60, or EPA Reference Method M 26A or 29 of appendix A-8 of part 60
Carbon monoxide	20	20	5.5	11	Parts per million by volume	3-run average (1-hour minimum sample time per run)	EPA Reference Method 10 or 10B of appendix A-4 of part 60
Dioxins/furans	240 (100) or 5.1 (2.2)	16 (7.0) or 0.013 (0.0057)	0.85 (0.37) or 0.020 (0.0087)	9.3 (4.1) or 0.054 (0.024)	Nanograms per dry standard cubic meter total dioxins/furans (grains per billion dry standard cubic feet) or nanograms per dry standard cubic meter TEQ (grains per billion dry standard cubic feet)	3-run average (4-hour minimum sample time per run)	EPA Reference Method 23 of appendix A-7 of part 60
Hydrogen chloride	810	44 <sup>c</sup> 15 <sup>d</sup>	7.7	6.6	Parts per million by volume	3-run average (1-hour minimum sample	EPA Reference Method 26 or 26A of appendix A-8 of part 60

						time per run)	
Sulfur dioxide	55	4.2	4.2	9.0	Parts per million by volume	3-run average (1-hour minimum sample time per run)	EPA Reference Method 6 or 6C of appendix A-4 of part 60
Nitrogen oxides	130	190	190	140	Parts per million by volume	3-run average (1-hour minimum sample time per run)	EPA Reference Method 7 or 7E of appendix A-4 of part 60
Lead	0.50 (0.22)	0.31 (0.14)	0.018 (0.0079)	0.036 (0.016)	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A-8 of part 60
Cadmium	0.11 (0.048)	0.017 (0.0074)	0.013 (0.0057)	0.0092 (0.0040)	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A-8 of part 60
Mercury	0.051 (0.0022)	0.014 (0.0061)	0.025 (0.011)	0.018 (0.0079)	Milligrams per dry standard cubic meter (grains per thousand dry standard cubic feet)	3-run average (1-hour minimum sample time per run)	EPA Reference Method 29 of appendix A-8 of part 60

<sup>a</sup>Except as allowed under §§62.14452(o)-(q) for HMIWI equipped with CEMS or continuous automated sampling systems.

<sup>b</sup>Does not include CEMS, continuous automated sampling systems, and approved alternative non-EPA test methods allowed under §62.14452(d) and (m).

<sup>c</sup>Limits for those HMIWI for which construction or modification was commenced according to §62.14400(a)(2)(i).

<sup>d</sup>Limits for those HMIWI for which construction or modification was commenced according to §62.14400(a)(2)(ii).

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**Table 2 to Subpart HHH of Part 62—Toxic Equivalency Factors**

Dioxin/furan congener	Toxic equivalency factor
2,3,7,8-tetrachlorinated dibenzo-p-dioxin	1
1,2,3,7,8-pentachlorinated dibenzo-p-dioxin	1
1,2,3,4,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,7,8,9-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,6,7,8-hexachlorinated dibenzo-p-dioxin	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzo-p-dioxin	0.01
Octachlorinated dibenzo-p-dioxin	0.0003
2,3,7,8-tetrachlorinated dibenzofuran	0.1
2,3,4,7,8-pentachlorinated dibenzofuran	0.3
1,2,3,7,8-pentachlorinated dibenzofuran	0.03
1,2,3,4,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,6,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,7,8,9-hexachlorinated dibenzofuran	0.1
2,3,4,6,7,8-hexachlorinated dibenzofuran	0.1
1,2,3,4,6,7,8-heptachlorinated dibenzofuran	0.01
1,2,3,4,7,8,9-heptachlorinated dibenzofuran	0.01
Octachlorinated dibenzofuran	0.0003

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**Table 3 to Subpart HHH of Part 62—Operating Parameters To Be Monitored and Minimum Measurement and Recording Frequencies**

Operating parameters to be monitored	Minimum frequency		HMIWI				
	Data measurement	Data recording	HMIWI with combustion control only	HMIWI with dry scrubber followed by FF	HMIWI with wet scrubber	HMIWI with dry scrubber followed by FF and wet scrubber	HMIWI with SNCR system
Maximum operating parameters:							
Maximum charge rate	Once per charge	Once per charge	✓	✓	✓	✓	✓
Maximum FF inlet temperature	Continuous	Once per minute		✓		✓	
Maximum flue gas temperature	Continuous	Once per minute			✓	✓	
Minimum operating parameters:							
Minimum secondary chamber temperature	Continuous	Once per minute	✓	✓	✓	✓	✓

Minimum dioxin/furan sorbent flow rate	Hourly	Once per hour		✓		✓	
Minimum HCl sorbent flow rate	Hourly	Once per hour		✓		✓	
Minimum mercury (Hg) sorbent flow rate	Hourly	Once per hour		✓		✓	
Minimum pressure drop across the wet scrubber or minimum horsepower or amperage to wet scrubber	Continuous	Once per minute			✓	✓	
Minimum scrubber liquor flow rate	Continuous	Once per minute			✓	✓	
Minimum scrubber liquor pH	Continuous	Once per minute			✓	✓	
Minimum reagent flow rate	Hourly	Once per hour					✓

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