

# Memorandum

# Florida Department of Environmental Protection

TO: Jeffery F. Koerner, P.E., Program Administrator  
Office of Permitting and Compliance

THROUGH: Syed Arif, P.E. SA 11/8

FROM: Scott M. Sheplak, P.E. sms

DATE: October 31, 2011

SUBJECT: Hillsborough County  
Hillsborough County Resource Recovery Facility (HCRRF)  
Intent to Issue Package  
  
Title V Air Operation Permit Revision  
Revised Draft/Proposed Permit No. 0570261-012-AV  
  
Air Construction Permit Revision  
Revised Draft Permit No. 0570261-013-AC/PSD-FL-369C  
  
**Permitting Clock:** Not Applicable

Attached for your review are the following documents:

- Cover Letter;
- Written Notice of Intent to Issue Air Permits with Public Notice of Intent to Issue Air Permits;
- P.E. Certification Statement for AC Permit;
- Technical Evaluation and Preliminary Determination;
- Revised Draft Air Construction Permit Revision;
- P.E. Certification Statement for Title V Air Operation Permit;
- Statement of Basis; and,
- Revised Draft/Proposed Title V Air Operation Permit.

This application was received via Electronic Permit Submittal and Processing System (EPSAP). The applicant requested the concurrent processing of an air construction permit revision to change underlying air construction (AC)/PSD permit conditions related to the mercury (Hg) continuous emission monitoring system (CEMS) provisions for Unit 4. The applicant certified compliance in the Title V air operation permit revision application. Review of the Department's Air Compliance and Enforcement Search (ACES) indicates that an inspection performed on October 28, 2011 indicated the facility is in compliance.

The applicant never published the public notice. We received significant comments from CDM (on behalf of the applicant) which resulted in substantial changes to the draft air construction permit revision and as reflected in the draft Title V air operation permit revision issued on August 3, 2011. To my knowledge these revised permits contain appropriate changes to either the applicant's satisfaction or to their understanding. This Title V air operation permit revision application therefore in my opinion is not controversial and is routine. I do not anticipate any more significant comments. Parallel (combined), e.g., draft/proposed, processing is recommended.

Unit 4 at the HCRRF was the first municipal waste combustor (MWC) unit in the U.S. with the requirement to install a Hg CEMS.

I recommend approval of the permits.

Attachments

SA/sms



# Florida Department of Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Rick Scott  
Governor

Jennifer Carroll  
Lt. Governor

Herschel T. Vinyard Jr.  
Secretary

*Sent by Electronic Mail - Received Receipt Requested*

Ms. Patricia V. Berry  
Interim Manager  
Hillsborough County  
Solid Waste Management Group  
601 E. Kennedy Boulevard  
Tampa, Florida 33602

Re: Hillsborough County Resource Recovery Facility  
*Revised* Draft/Proposed Permit No. 0570261-012-AV, Title V Air Operation Permit Revision  
*Revised* Draft Permit No. 0570261-013-AC/PSD-FL-369C, Air Construction Permit Revision

Dear Ms. Berry:

Enclosed is the *revised* draft/proposed permit package for a Title V air operation permit revision and an air construction permit revision for the Hillsborough County Resource Recovery Facility. This facility is located in Hillsborough County at 350 North Falkenburg Road in Tampa, Florida.

A Draft Title V Air Operation Permit Revision and a Draft Air Construction Permit Revision were issued (clerked) on August 3, 2011. Due to comments and some substantial (significant) changes, the previous permits (Draft Title V Air Operation Permit Revision and Draft Air Construction Permit Revision) issued on August 3, 2011 are withdrawn and are being replaced with these *revised* permits.

The permit package includes the following documents:

- The Written Notice of Intent to Issue Air Permits provides important information regarding: the Permitting Authority's intent to issue air permits for the proposed project; the requirements for publishing a Public Notice of the Permitting Authority's intent to issue air permits; the procedures for submitting comments on the draft/proposed Title V air operation permit and the draft air construction permit revision; the process for filing a petition for an administrative hearing; and, the availability of mediation.
- The Public Notice of Intent to Issue Air Permits is the actual notice that you must have published in the legal advertisement section of a newspaper of general circulation in the area affected by this project. The Public Notice of Intent to Issue Air Permits must be published as soon as possible and the proof of publication must be provided to the Department within seven days of the date of publication. Because this permit is being processed as a combined draft/proposed permit in order to reduce processing time, a duplicate copy of the proof of publication must also be transmitted by electronic mail within seven days of the date of publication to Ms. Ana Oquendo at EPA Region 4 at the following address: [oquendo.ana@epamail.epa.gov](mailto:oquendo.ana@epamail.epa.gov).
- The Statement of Basis, which summarizes the facility, the equipment, and the primary rule applicability.
- The *revised* draft/proposed Title V air operation permit, which includes the specific permit conditions that regulate the emissions units covered by the proposed project.
- The Technical Evaluation and Preliminary Determination, which explains the revisions to underlying construction permit conditions.
- The *revised* draft air construction permit revision.

Please submit any written comments you wish to have considered concerning the permitting authority's proposed action to Mr. Syed Arif, P.E., Environmental Administrator, at the above letterhead address. If you have any questions, please contact Mr. Scott M. Sheplak, P.E., by telephone at 850/717-9074 or by email at [scott.sheplak@dep.state.fl.us](mailto:scott.sheplak@dep.state.fl.us).

Sincerely,

Jeffery F. Koerner, Program Administrator  
Office of Permitting and Compliance  
Division of Air Resource Management  
[www.dep.state.fl.us](http://www.dep.state.fl.us)

11-15-11

Date

## WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMITS

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*In the Matter of an  
Application for Permits by:*

Hillsborough County  
Solid Waste Management Group  
601 E. Kennedy Boulevard  
Tampa, Florida 33602

*Revised Draft/Proposed Permit No. 0570261-012-AV  
Revised Draft Permit No. 0570261-013-AC/PSD-FL-369C  
Facility ID No. 0570261  
Hillsborough County Resource Recovery Facility*

*Responsible Official:*  
Ms. Patricia V. Berry, Interim Manager

Title V Air Operation Permit Revision  
Air Construction Permit Revision  
Hillsborough County, Florida

**Facility Location:** The applicant owns and Covanta Hillsborough operates the existing Hillsborough County Resource Recovery Facility, which is located in Hillsborough County at 350 North Falkenburg Road in Tampa, Florida.

**Project:** A Draft Title V Air Operation Permit Revision and a Draft Air Construction Permit Revision were issued (clerked) on August 3, 2011. Due to comments and some substantial (significant) changes, the previous permits (Draft Title V Air Operation Permit Revision and Draft Air Construction Permit Revision) issued on August 3, 2011 are withdrawn and are being replaced with these *revised* permits.

The purpose of this project is for a revision, Permit No. 0570261-012-AV to include Unit 4 in the Title V air operation permit and to revise several of the mercury (Hg) continuous emission monitoring system (CEMS) provisions in the underlying air construction permit No. 0570261-010-AC/PSD-FL-369B. Details of the project are provided in the application, the enclosed Statement of Basis and the Technical Evaluation and Preliminary Determination.

**Permitting Authority:** Applications for Title V air operation permits for facilities that contain acid rain units are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210 and 62-213 of the Florida Administrative Code (F.A.C.). Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210 and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and a Title V air operation permit is required to operate the facility. The Office of Permitting and Compliance is the Permitting Authority responsible for making a permit determination for this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/717-9000.

**Project File:** A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at the address indicated above for the Permitting Authority. The complete project file includes the draft/proposed Title V air operation permit, the Statement of Basis, the draft air construction permit revision, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may view the draft/proposed Title V air operation permit or the draft air construction permit revision by visiting the following web site: <http://www.dep.state.fl.us/air/emission/apds/default.asp> and entering the permit number shown above. Interested persons may contact the Permitting Authority's project review engineer for additional information at the address or phone number listed above.

**Notice of Intent to Issue Air Permits:** The Permitting Authority gives notice of its intent to issue a draft/proposed Title V air operation permit and a concurrent draft air construction permit revision for the projects described above. The applicant has provided reasonable assurance that operation of the existing equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. The Permitting Authority will issue final permits in

## WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMITS

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accordance with the conditions of the draft/proposed Title V air operation permit and the draft air construction permit revision unless a response received in accordance with the following procedures results in a different decision or a significant change of terms or conditions.

**Public Notice:** Pursuant to Section 403.815, F.S. and Rules 62-110.106 and 62-210.350, F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Permits (Public Notice). The Public Notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected by this project. The newspaper used must meet the requirements of Sections 50.011 and 50.031, F.S. in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Permitting Authority at the above address or phone number. Pursuant to Rule 62-110.106(5) and (9), F.A.C., the applicant shall provide proof of publication to the Permitting Authority at the above address within 7 days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rule 62-110.106(11), F.A.C.

**Comments:** The Permitting Authority will accept written comments concerning the draft/proposed Title V air operation permit and the draft air construction permit revision for a period of 30 days from the date of publication of the Public Notice. Written comments must be received by the close of business (5:00 p.m.), on or before the end of this 30-day period by the Permitting Authority at the above address. As part of his or her comments, any person may also request that the Permitting Authority hold a public meeting on this permitting action. If the Permitting Authority determines there is sufficient interest for a public meeting, it will publish notice of the time, date, and location in the Florida Administrative Weekly (FAW). If a public meeting is requested within the 30-day comment period and conducted by the Permitting Authority, any oral and written comments received during the public meeting will also be considered by the Permitting Authority. If timely received written comments or comments received at a public meeting result in a significant change to the draft/proposed Title V air operation permit or the draft air construction permit revision, the Permitting Authority shall issue a revised draft/proposed Title V air operation permit or a revised draft air construction permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection. For additional information, contact the Permitting Authority at the above address or phone number.

**Petitions:** A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within 14 days of receipt of this Written Notice of Intent to Issue Air Permits. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within 14 days of publication of the attached Public Notice or within 14 days of receipt of this Written Notice of Intent to Issue Air Permits, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within 14 days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of when and how each petitioner received notice of the agency action

**WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMITS**

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or proposed decision; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

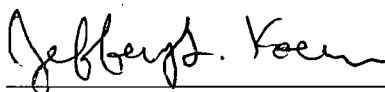
Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Written Notice of Intent to Issue Air Permits. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

**Mediation:** Mediation is not available in this proceeding.

**EPA Review:** EPA has agreed to treat the draft/proposed Title V air operation permit as a proposed Title V air operation permit and to perform its 45-day review provided by the law and regulations concurrently with the public comment period, provided that the applicant also transmits an electronic copy of the required proof of publication directly to EPA at the following email address: [ouendo.ana@epamail.epa.gov](mailto:ouendo.ana@epamail.epa.gov). Although EPA's 45-day review period will be performed concurrently with the public comment period, the deadline for submitting a citizen petition to object to the EPA Administrator will be determined as if EPA's 45-day review period is performed after the public comment period has ended. The final Title V air operation permit will be issued after the conclusion of the 45-day EPA review period so long as no adverse comments are received that results in a different decision or significant change of terms or conditions. The status regarding EPA's 45-day review of this project and the deadline for submitting a citizen petition can be found at the following web site address: <http://www.epa.gov/region4/air/permits/Florida.htm>.

**Objections:** Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 days of the expiration of the Administrator's 45-day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to the issuance of any Title V air operation permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30-day public comment period provided in the Public Notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460. For more information regarding EPA review and objections, visit EPA's Region 4 web site at <http://www.epa.gov/region4/air/permits/Florida.htm>.

Executed in Tallahassee, Florida



Jeffery F. Koerner, Program Administrator  
Office of Permitting and Compliance  
Division of Air Resource Management

11-15-11

Date

WRITTEN NOTICE OF INTENT TO ISSUE AIR PERMITS

CERTIFICATE OF SERVICE

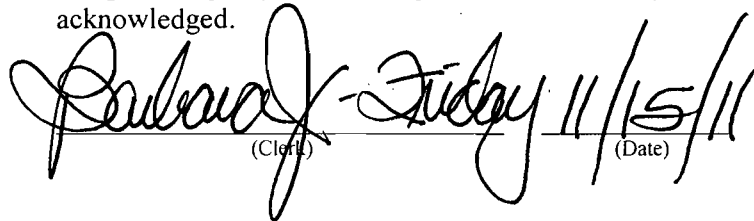
The undersigned duly designated deputy agency clerk hereby certifies that this Written Notice of Intent to Issue Permits package (including the Public Notice, the Statement of Basis, the *Revised Draft/Proposed Title V Air Operation Permit*, the Technical Evaluation and Preliminary Determination, and the *Revised Draft Air Construction Permit Revision*), or a link to these documents available electronically on a publicly accessible server, was sent by electronic mail with received receipt requested before the close of business on

11/15/11 to the persons listed below.

- Ms. Patricia V. Berry, Hillsborough County: [berryp@hillsboroughcounty.org](mailto:berryp@hillsboroughcounty.org)
- Mr. Glenn Hoag, Covanta Hillsborough: [ghoag@covantaenergy.com](mailto:ghoag@covantaenergy.com)
- Mr. Jason Gorrie, P.E., Covanta: [jgorrie@covantaenergy.com](mailto:jgorrie@covantaenergy.com)
- Mr. Paul L. Hauck, P.E., CDM: [hauckpl@cdm.com](mailto:hauckpl@cdm.com)
- Mr. Daniel E. Strobridge, QEP, CDM: [strobridgede@cdm.com](mailto:strobridgede@cdm.com)
- Ms. Diana M. Lee, P.E., EPCHC: [lee@epchc.org](mailto:lee@epchc.org)
- Ms. Cindy Zhang-Torres, P.E., DEP SWD: [zhang-torres@dep.state.fl.us](mailto:zhang-torres@dep.state.fl.us)
- Ms. Cindy Mulkey, DEP Siting Office: [cindy.mulkey@dep.state.fl.us](mailto:cindy.mulkey@dep.state.fl.us)
- Ms. Heather Ceron, U.S. EPA Region 4: [ceron.heather@epa.gov](mailto:ceron.heather@epa.gov)
- Ms. Katy R. Forney, U.S. EPA Region 4: [forney.kathleen@epa.epa.gov](mailto:forney.kathleen@epa.epa.gov)
- Ms. Ana Oquendo-Vazquez, U.S. EPA Region 4: [oquendo.ana@epa.gov](mailto:oquendo.ana@epa.gov)
- Ms. Barbara Friday, DEP OPC: [barbara.friday@dep.state.fl.us](mailto:barbara.friday@dep.state.fl.us) (for posting with U.S. EPA, Region 4)
- Ms. Lynn Searce, DEP OPC: [lynn.searce@dep.state.fl.us](mailto:lynn.searce@dep.state.fl.us) (for reading file)

Clerk Stamp

**FILING AND ACKNOWLEDGMENT FILED**, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

  
(Clerk) Friday 11/15/11 (Date)

## PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMITS

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Florida Department of Environmental Protection  
Division of Air Resource Management, Office of Permitting and Compliance  
*Revised Draft/Proposed Permit No. 0570261-012-AV, Title V Air Operation Permit Revision*  
*Revised Draft Permit No. 0570261-013-AC/PSD-FL-369C, Air Construction Permit Revision*  
Hillsborough County Solid Waste Management Group  
Hillsborough County Resource Recovery Facility  
Hillsborough County, Florida

**Applicant:** The applicant for this project is Hillsborough County. The applicant's responsible official and mailing address are: Ms. Patricia V. Berry, Interim Manager, Hillsborough County, Solid Waste Management Group, 601 E. Kennedy Boulevard, Tampa, Florida 33602.

**Facility Location:** The applicant owns and Covanta Hillsborough operates the existing Hillsborough County Resource Recovery Facility, which is located in Hillsborough County at 350 North Falkenburg Road in Tampa, Florida.

**Project:** The applicant applied on June 9, 2010, to the Department for a revision to include Unit 4 in the Title V air operation permit. A Draft Title V Air Operation Permit Revision and a Draft Air Construction Permit Revision were issued (clerked) on August 3, 2011. Due to comments and some substantial (significant) changes, the previous permits (Draft Title V Air Operation Permit Revision and Draft Air Construction Permit Revision) issued on August 3, 2011 are withdrawn and are being replaced with these *revised* permits.

This existing facility consists of: four municipal solid waste combustors (Unit Nos. 1, 2, 3 and 4) with auxiliary burners; lime storage and processing facilities; ash storage and processing facilities; cooling towers; and, ancillary support equipment. Also included in this permit are miscellaneous insignificant emissions units and/or activities. The total capacity of the Hillsborough County Resource Recovery Facility is 1,800 tons/day (TPD) of municipal solid waste fuel. The gross nominal electric generating capacity of the facility is 47 megawatts (MW). The facility is owned by Hillsborough County and is currently operated by Covanta Hillsborough, Inc. a subsidiary of Covanta Energy Corporation.

The project also includes an air construction permit revision to change several of the mercury (Hg) continuous emission monitoring system (CEMS) provisions in the underlying air construction permit No. 0570261-010-AC/PSD-FL-369B for Unit 4.

**Permitting Authority:** Applications for Title V air operation permits for facilities that contain acid rain units are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210 and 62-213 of the Florida Administrative Code (F.A.C.). Applications for air construction permits are subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210 and 62-212 of the Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and a Title V air operation permit is required to operate the facility. The Office of Permitting and Compliance is the Permitting Authority responsible for making a permit determination for this project. The Permitting Authority's physical address is: 111 South Magnolia Drive, Suite #4, Tallahassee, Florida. The Permitting Authority's mailing address is: 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400. The Permitting Authority's telephone number is 850/717-9000.

**Project File:** A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at the address indicated above for the Permitting Authority. The complete project file includes the draft/proposed Title V air operation permit, the Statement of Basis, the draft air construction permit revision, the Technical Evaluation and Preliminary Determination, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may view the draft/proposed Title V air operation permit or the draft air construction permit revision by visiting the following web site:

<http://www.dep.state.fl.us/air/emission/apds/default.asp> and entering the permit number shown above.

Interested persons may contact the Permitting Authority's project review engineer for additional information at

(Public Notice to be Published in the Newspaper)

## PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMITS

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the address or phone number listed above.

**Notice of Intent to Issue Air Permits:** The Permitting Authority gives notice of its intent to issue a draft/proposed Title V air operation permit and a concurrent draft air construction permit revision for the projects described above. The applicant has provided reasonable assurance that operation of the proposed equipment will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. The Permitting Authority will issue final permits in accordance with the conditions of the draft/proposed Title V air operation permit and the draft air construction permit revision unless a response received in accordance with the following procedures results in a different decision or a significant change of terms or conditions.

**Comments:** The Permitting Authority will accept written comments concerning the draft/proposed Title V air operation permit and the draft air construction permit revision for a period of 30 days from the date of publication of the Public Notice. Written comments must be received by the close of business (5:00 p.m.), on or before the end of this 30-day period by the Permitting Authority at the above address. As part of his or her comments, any person may also request that the Permitting Authority hold a public meeting on this permitting action. If the Permitting Authority determines there is sufficient interest for a public meeting, it will publish notice of the time, date, and location in the Florida Administrative Weekly (FAW). If a public meeting is requested within the 30-day comment period and conducted by the Permitting Authority, any oral and written comments received during the public meeting will also be considered by the Permitting Authority. If timely received written comments or comments received at a public meeting result in a significant change to the draft/proposed Title V air operation permit or the draft air construction permit revision, the Permitting Authority shall issue a revised draft/proposed Title V air operation permit or a revised draft air construction permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection. For additional information, contact the Permitting Authority at the above address or phone number.

**Petitions:** A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S. must be filed within 14 days of publication of the Public Notice or receipt of a written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within 14 days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention (in a proceeding initiated by another party) will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address and telephone number of the petitioner; the name address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial rights will be affected by the agency determination; (c) A statement of when and how the petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to

**(Public Notice to be Published in the Newspaper)**



## PUBLIC NOTICE OF INTENT TO ISSUE AIR PERMITS

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take with respect to the agency's proposed action. A petition that does not dispute the material facts upon which the Permitting Authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority's final action may be different from the position taken by it in this Public Notice of Intent to Issue Air Permits. Persons whose substantial interests will be affected by any such final decision of the Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

**Mediation:** Mediation is not available for this proceeding.

**EPA Review:** EPA has agreed to treat the draft/proposed Title V air operation permit as a proposed Title V air operation permit and to perform its 45-day review provided by the law and regulations concurrently with the public comment period, provided that the applicant also transmits an electronic copy of the required proof of publication directly to EPA at the following email address: [ouendo.ana@epamail.epa.gov](mailto:ouendo.ana@epamail.epa.gov). Although EPA's 45-day review period will be performed concurrently with the public comment period, the deadline for submitting a citizen petition to object to the EPA Administrator will be determined as if EPA's 45-day review period is performed after the public comment period has ended. The final Title V air operation permit will be issued after the conclusion of the 45-day EPA review period so long as no adverse comments are received that results in a different decision or significant change of terms or conditions. The status regarding EPA's 45-day review of this project and the deadline for submitting a citizen petition can be found at the following web site address: <http://www.epa.gov/region4/air/permits/Florida.htm>.

**Objections:** Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 days of the expiration of the Administrator's 45-day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to the issuance of any Title V air operation permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30-day public comment period provided in the Public Notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at: U.S. EPA, 401 M Street, S.W., Washington, D.C. 20460. For more information regarding EPA review and objections, visit EPA's Region 4 web site at <http://www.epa.gov/region4/air/permits/Florida.htm>.

## P.E. CERTIFICATION STATEMENT

### APPLICANT

Hillsborough County  
Hillsborough County Resource Recovery Facility

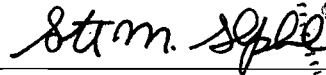
Revised Draft/Proposed Permit No. 0570261-012-AV

**PROJECT TYPE:** Title V Air Operation Permit Revision

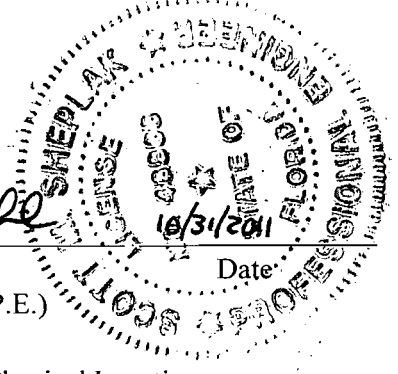
### PROJECT DESCRIPTION

This project is for a Title V air operation permit revision and for the concurrent processing of an air construction (AC)/Prevention of Significant Deterioration (PSD) permit revision. The Statement of Basis contains more details on the Title V air operation permit revision.

*I HEREBY CERTIFY that the air pollution control engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes (F.S.), and F.A.C. Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify any other aspects of the proposal outside of my area of expertise (including, but not limited to, the electrical, civil, mechanical, structural, hydrological, geological, and meteorological features). My licensed area of practice as a professional engineer under Chapter 471, F.S. is environmental (air pollution) engineering.*



Scott M. Sheplak  
Professional Engineer (P.E.)  
License Number 48866



Date: 10/31/2011

Permitting Authority's Physical Location:

111 South Magnolia Drive, Suite 4  
Tallahassee, Florida 32301

Telephone: 850/717-9074 Fax: 850/717-9097

E-mail: [scott.sheplak@dep.state.fl.us](mailto:scott.sheplak@dep.state.fl.us)

SMS/

Permitting Authority's Mailing Address:

Florida Department of Environmental Protection  
Division of Air Resource Management • Office of Permitting and Compliance • Key Industries - Minerals & Metals  
2600 Blair Stone Road, Mail Station #5505 • Tallahassee, Florida 32399-2400

## STATEMENT OF BASIS

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Hillsborough County  
Hillsborough County Resource Recovery Facility

*Revised Draft/Proposed Permit No. 0570261-012-AV, Title V Air Operation Permit Revision*

### APPLICANT

The applicant for this project is Hillsborough County. The applicant's responsible official and mailing address are: Ms. Patricia V. Berry, Interim Manager, Hillsborough County, Solid Waste Management Group, 601 E. Kennedy Boulevard, Tampa, Florida 33602.

### FACILITY DESCRIPTION

The Hillsborough County Resource Recovery Facility is located in Hillsborough County at 350 North Falkenburg Road, Tampa, Florida.

This existing facility consists of: four municipal solid waste combustors (Unit Nos. 1, 2, 3 and 4) with auxiliary burners; lime storage and processing facilities; ash storage and processing facilities; cooling towers; and, ancillary support equipment. Also included in this permit are miscellaneous insignificant emissions units and/or activities.

The total capacity of the Hillsborough County Resource Recovery Facility is 1,800 tons/day (TPD) of municipal solid waste fuel. The gross nominal electric generating capacity of the facility is 47 megawatts (MW).

The facility is owned by Hillsborough County and is currently operated by Covanta Hillsborough, Inc. a subsidiary of Covanta Energy Corporation.

### PROJECT DESCRIPTION

The purpose of this project is for a revision, Permit No. 0570261-012-AV to incorporate the applicable specific terms and conditions from a previously issued air construction (AC) permit, Permit No. 0570261-010-AC/PSD-FL-369B, which authorized the construction of a nominal 600 tons per day (TPD) mass-burn municipal waste combustor (MWC) referred to as "Unit 4."

This permit is for the initial operation of Unit 4. Compliance with all of the terms and conditions of the AC permit was demonstrated. Initial testing demonstrated compliance with the emission standards and limitations specified in the AC permit. A complete summary of the initial compliance test results are provided in the permit application.

### PROCESSING SCHEDULE AND RELATED DOCUMENTS

Application for a Title V Air Operation Permit Revision received via Electronic Permit Submittal and Processing System (EPSAP) on June 9, 2010.

Request for Additional Information dated and sent via e-mail on July 6, 2010.

Additional Information Response from CDM (consultant) dated August 6, 2010 and received on August 9, 2010.

Request for Additional Information dated and sent via e-mail on September 7, 2010.

Request for extension to respond from CDM (consultant) dated and received via e-mail on November 8, 2010.

E-mail dated November 9, 2010 granting request to respond up to March 7, 2011.

Additional Information Response from CDM (consultant) dated and received via e-mail on March 7, 2011.

Application for Concurrent Air Construction/PSD Permit Revision from CDM dated May 9, 2011 and received on May 11, 2011.

Draft Air Construction Permit Revision clerked (issued) on August 3, 2011.

Draft Title V Air Operation Permit Revision posted onto web site on August 3, 2011.

Comments dated and received from CDM (on behalf of Applicant) on September 20, 2011.

## STATEMENT OF BASIS

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*Revised* Draft Air Construction Permit Revision clerked (issued) on Month day, 2011.

*Revised* Draft/Proposed Title V Air Operation Permit Revision clerked (issued) on Month day, 2011.

Public Notice published on Month day, 2011.

Notification to U.S. EPA Region 4 of Publication of Public Notice on Month day, 2011.

### PRIMARY REGULATORY REQUIREMENTS

Title III: This facility is a major source of hazardous air pollutants (HAP), based on the Title V air operation permit revision application.

NESHAP: This facility operates units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 Code of Federal Regulations (CFR) 63.

Title IV: This facility does not operate units subject to the acid rain provisions of the Clean Air Act.

Title V: This facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

PSD: This facility is a Prevention of Significant Deterioration (PSD)-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: This facility operates units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

CAIR: This facility does not operate units subject to the Clean Air Interstate Rule (CAIR) set forth in Rule 62-296.470, F.A.C.

Siting: This facility operates units subject to the power plant siting provisions of Chapter 62-17, F.A.C.

CAM: Emissions units at this facility are not subject to Compliance Assurance Monitoring (CAM) for one or more of the following reasons: they do not trigger the potential pre-air pollution control device major source emission thresholds; they demonstrate continuous compliance with a continuous emission monitoring system (CEMS); they are not equipped with air pollution control device(s); they are equipped with device(s) which are considered to be inherent to the process/operation; or, they satisfy CAM by meeting the post-1990 40 CFR 60 Subparts Cb/Eb federal monitoring requirements for the same or similar air pollutants.

The U.S. EPA letter dated July 7, 1999 (attached to permit), supports the use of monitoring under the post-1990 40 CFR 60 Subparts Cb/Eb to satisfy CAM for the same air pollutants and mentions the use of surrogate pollutants for similar air pollutants. Air pollutants specifically regulated under 40 CFR 60 Subparts Cb/Eb for Municipal Waste Combustors (MWCs) are: total particulate matter (PM); metals and metal compounds (cadmium (Cd), mercury (Hg) and lead (Pb)); all acid gases (including, but not limited to, sulfur dioxide (SO<sub>2</sub>) and hydrogen chloride (HCl) gases); organic compounds (includes dioxins/furans (D/F)); nitrogen oxides (NO<sub>x</sub>); and, carbon monoxide (CO). In addition to the air pollutant limits specified under 40 CFR 60 Subparts Cb/Eb for MWCs, some of the same air pollutants are regulated for other reasons i.e., PSD BACT, state implementation plan (SIP) standard, etc. A streamlined approach for multiple emission limits of the same air pollutant is preferred for simplified monitoring. As outlined in the U.S. EPA letter and described herein, monitoring under the post-1990 40 CFR 60 Subpart Cb/Eb for the MWC Units 1 - 4 is therefore, deemed to be adequate for the same air pollutants.

The baghouses on the material storage silos are considered to be inherent to the process/operation. The scrubber installed on the Ash Handling Building (AHB) was also installed for worker protection/safety. The baghouses and the scrubber are therefore exempt from CAM.

### PROJECT REVIEW

This project review summarizes the changes made in this Title V air operation permit revision.

## STATEMENT OF BASIS

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The comments dated and received on September 20, 2011 from CDM (on behalf of the Applicant) had resulted in substantial changes to the draft Title V air operation permit renewal and the draft air construction permit revision issued on August 3, 2011. These *revised* permits are a result of the substantial changes made to the permits.

The changes made in the draft permit documents are specifically shown as follows: deletions are noted in ~~striketrough~~ and additions are noted in double underline. The changes will not be shown in the final permit documents.

### Permit

- MWC Unit 4 Inclusion. Incorporated the applicable specific terms and conditions from the previously issued air construction permit No. 0570261-010-AC/PSD-FL-369B for MWC Unit 4. New Subsections III.G., H. & I. were added to the permit.
- Hg CEMS Revisions. The applicant also requested the concurrent processing of an air construction permit revision to change air construction/PSD permit conditions related to the mercury (Hg) continuous emission monitoring system (CEMS) provisions for Unit 4 (Emissions Unit Identification number (E.U. ID No.) 107). See Permit No. 0570261-013-AC/PSD-FL-369C for the changes made. The Technical Evaluation and Preliminary Determination summarizes the requested changes, the Department's responses identify the changes made to the underlying air construction permit conditions. These changes have been reflected within the Title V air operation permit.

### Department Initiated Changes to Permit

- The layout of the Title V air operation permit was changed; for example, new headers and footers were added.
- The address and telephone number for the Risk Management Plan (RMP) Reporting Center was updated in Facility-wide Specific Condition **II.4.a.** in Section II.
- Added the May 10, 2006, federal municipal waste combustor (MWC) regulation amendments to the permit. Specific condition **C.97. - C.100.** in Subsection III.C. of the permit which incorporates all of 40 CFR 60, Subpart Cb, as Appendix 40 CFR 60, Subpart Cb. The amendments apply to the MWC Nos. 1, 2 and 3 (Emissions Unit ID Nos. 001, 002 and 003). {Note: The body of Subsection III.C. of the permit contains text from the federal regulations that does not reflect the May 10, 2006 federal amendment language}. For convenience, an Appendix 40 CFR 60 Subpart 60 is also added within this incorporation.
- Added the May 10, 2006, federal municipal waste combustor (MWC) regulation amendments to the permit. Specific condition **G.33. - G.34.** in Subsection III.G. of the permit which incorporates all of 40 CFR 60, Subpart Eb, as Appendix 40 CFR 60 Subpart Eb. The amendments apply to the MWC No. 4 (Emissions Unit ID No. 107). {Note: The body of Subsection III.G. of the permit may contain text from the federal regulations that do not reflect the May 10, 2006 federal amendment language}. For convenience, an Appendix 40 CFR 60 Subpart A is also added within this incorporation.
- Added "Appendix ATP, U.S. EPA Alternative Test Procedure Approval dated June 3, 2004." This alternative test procedure had been previously granted by U.S. EPA and applies to the MWC units.

## STATEMENT OF BASIS

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### CONCLUSION

This project revises Title V air operation permit No. 0570261-006-AV, which was effective May 29, 2007. This Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-4, 62-210 and 62-213, Florida Administrative Code (F.A.C.).

**Hillsborough County Resource Recovery Facility**



Hillsborough County  
Hillsborough County Resource Recovery Facility  
Facility ID No. 0570261  
Hillsborough County

Title V Air Operation Permit Revision

**Revised Draft/Proposed Permit No. 0570261-012-AV**  
(1<sup>st</sup> Revision to Title V Air Operation Permit No. 0570261-006-AV)



**Permitting Authority:**

State of Florida  
Department of Environmental Protection  
Division of Air Resource Management  
Office of Permitting and Compliance  
2600 Blair Stone Road  
Mail Station #5505  
Tallahassee, Florida 32399-2400  
Telephone: (850) 717-9000  
Fax: (850) 717-9097

**Compliance Authority:**

State of Florida  
Department of Environmental Protection  
Southwest District Office  
13051 N. Telecom Parkway  
Temple Terrace, Florida 33637-0926  
Telephone: (813) 632-7600  
Fax: (813) 632-7665

## Title V Air Operation Permit Revision

*Revised Draft/Proposed Permit No. 0570261-012-AV*

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<u>Appendix 40 CFR 60 Subpart A, NSPS General Provisions (version dated 2/5/2010).</u>	
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# Florida Department of Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Rick Scott  
Governor

Jennifer Carroll  
Lt. Governor

Herschel T. Vinyard Jr.  
Secretary

**PERMITTEE:**  
Hillsborough County  
Hillsborough County Resource Recovery Facility

Draft/Proposed Permit No. 0570261-012-AV  
Hillsborough County Resource Recovery Facility  
Facility ID No. 0570261  
Project: Title V Air Operation Permit Revision

The purpose of this permit is to revise the Title V air operation permit for the above referenced facility. This existing facility is located in Hillsborough County at 350 Falkenburg Road, Tampa, Florida; UTM Coordinates are: Zone 17, 368.2 km East and 3092.7 km North; Latitude: 27° 57' 14" North and Longitude: 82° 40' 22" West.

This Title V air operation permit revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210 and 62-213. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

0570261-006-AV Effective Date: May 29, 2007

0570261-012-AV Revision Effective Date: [ARMS Day 55]

Renewal Application Due Date: ~~November 30, 2011~~ October 16, 2011

Expiration Date: May 28, 2012

For the Division of Air Resource Management

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Printed Name of Above Designee)

JFK/sa/sms

## SECTION I. FACILITY INFORMATION.

### Subsection A. Facility Description.

The facility consists of ~~three~~four municipal waste combustors (MWCs).

MWC Units 1, 2 and 3 have a nominal design rated capacity of 400 tons MSW per day, 150 MMBtu per hour (excluding 9.9 MMBtu/hr from the combustion air preheaters) and 94,270 pounds steam per hour with MSW having a heating value of 4,500 Btu per pound. The "operating window" of 115 percent (%) over the nominal design rate of 150 MMBtu heat input corresponds to 172.5 MMBtu/hr heat input and 102,000 lbs steam/hour per each boiler. By letter dated March 17, 1998, D.B Riley, Inc. (boilers' manufacturer) indicated that it performed an evaluation of each boiler's ability to operate at the proposed increase steam flow of 102,000 lbs steam/hr and concluded that each boiler can safely operate at an increased continuous steam generation rate of 103,700 lbs steam/hr. Short-term capacity is limited by limiting steam production (102,000 lbs/hr), which effectively limits heat input. The facility has a design net steam energy of 1158 Btu/lb. Natural gas fired auxiliary burners and combustion control systems, with continuous monitoring devices for combustion and process parameters and SO<sub>2</sub>, NO<sub>x</sub> and CO, are installed to improve combustion efficiency and control. The air pollution control equipment consists of a spray dryer absorber, a fabric filter, and activated carbon injection system. A selective non-catalytic reduction system (SNCR) and auxiliary gas burners are installed in the furnaces.

MWC Unit 4 is a nominal design rated capacity 600 TPD mass-burn MWC manufactured by Riley Power Inc. The nominal steam production rate is 170,790 pounds of steam per hour and the maximum steam production limit is 200,000 lb steam/hr (4-hour block average) based on MSW having a heating value of 5,000 Btu/lb. The nominal heat input is approximately 288 MMBtu/hour. Short term capacity is restricted by limiting steam production, which effectively limits heat input. The net design steam enthalpy for useful work is 1,158 Btu/lb. Auxiliary burners are used to fire the MSW combustors during startup, shutdown, and at other times when necessary and consistent with good combustion practices. Air pollution control equipment and measures consist of: efficient combustion on the grate and furnace; the strategic combustion air management system (Covanta low NO<sub>x</sub> (LNTM) system) or flue gas recirculation (FGR); a spray dryer/absorber in conjunction with a fabric filter (SD/FF) for control of acid gases, particulate matter, and most metals; activated carbon injection (ACI) system to enhance mercury (Hg) removal; and, selective non-catalytic reduction (SNCR) by ammonia or urea injection for nitrogen oxides (NO<sub>x</sub>) control.

With the addition of Unit 4, the site capacity was increased from approximately 1,200 TPD to 1,800 TPD. The site's steam electric generating capacity was increased from 39 MW to 47 MW (nominal).

The facility also has an ash building and handling system; ~~two~~ lime storage silos; and ~~an~~ activated carbon storage silos.

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

The facility is owned by Hillsborough County and is currently operated by Covanta Hillsborough, Inc. a subsidiary of Covanta Energy Corporation.

Based on the Title V permit renewal application received on April 28, 2005, this facility is a major source of hazardous air pollutants (HAP).

### Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).

The facility consists of the following regulated emissions units:

E.U. ID No.	Brief Description
001	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit 1
002	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit 2
003	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit 3
100	Ash Building and Handling System <u>with Baghouse</u>
101	Lime Storage Silo
102	Activated Carbon Storage Silo

**SECTION I. FACILITY INFORMATION.**

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106	Dolomitic Lime Storage Silo
<u>107</u>	<u>288 MMBtu/hr (nominal) Municipal Waste Combustor &amp; Auxiliary Burners - Unit 4</u>

Unregulated Emissions Units and/or Activities

103	Cooling Tower <u>{The cooling tower does not use chromium-based water treatment chemicals.}</u>
104	Wastewater Treatment Facility
105	NaOH Storage Tank
<u>111</u>	<u>Cooling Tower Cell - Unit 4</u>
<u>112</u>	<u>Wet Scrubber for Ash Building</u>

*Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.*

## SECTION II. FACILITY-WIDE CONDITIONS.

1. APPENDIX TV-6, TITLE V CONDITIONS, is a part of this permit.  
{Permitting note: APPENDIX TV-6, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}

2. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. The truck access doors to the facility shall remain closed except during normal working shifts when MSW is being received at the storage pit area. To minimize odors at the facility, a negative pressure shall be maintained on the tipping floor and air from within the building will be used as combustion air.  
[Rule 62-296.320(2), F.A.C.; and, PSD-FL-121(B)]

3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.  
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]

4. Prevention of Accidental Releases (Section 112(r) of CAA).

a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center  
Post Office Box ~~4515~~10162  
~~Lanham Seabrook, MD 20703-1515~~Fairfax, VA 22038  
Telephone: ~~301/429-5018~~703/227-7650

and,

b. The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.  
[40 CFR 68]

5. Unregulated Emissions Units and/or Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit.  
[Rule 62-213.440(1), F.A.C.]

6. Insignificant Emissions Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.  
[Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]

7. General Pollutant Emission Limiting Standards. Volatile Organic Compounds Emissions or Organic Solvents Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. Nothing was deemed necessary and ordered at this time.  
[Rule 62-296.320(1)(a), F.A.C.]

8. Emissions of Unconfined Particulate Matter. Pursuant to Rules 62-296.320(4)(c)1., 3. & 4., F.A.C., reasonable precautions to prevent emissions of unconfined particulate matter at this facility include the following requirements (see Condition 57. of APPENDIX TV-6, TITLE V CONDITIONS): All roads shall be adequately paved, and vacuum swept if appropriate, to minimize accumulations of ash and dust. The unpaved areas of the

## SECTION II. FACILITY-WIDE CONDITIONS.

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facility are maintained and either sodded or landscaped. Hoods, fans, filters, or similar equipment is used to contain, capture, and/or vent particulate matter. The conveyor systems of the facility are enclosed or covered. The ash is wetted before being stored in the ash handling building. Speed limit signs shall be posted. Unprocessed refuse storage areas which must be open for operational purposes (e.g., tipping floor or the refuse bunker while trucks are entering or leaving) shall be under negative air pressure.  
[Rule 62-296.320(4)(c)2., F.A.C.; PSD-FL-121(B); and proposed in initial Title V permit application]

9. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.  
[Rule 62-213.440, F.A.C.]

10. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted within 60 (sixty) days after the end of the calendar year using DEP Form number 62-213.900(7), F.A.C.  
[Rule 62-213.440(3), F.A.C.]

11. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Southwest District office.

Department of Environmental Protection  
Southwest District Office  
13051 N Telecom Parkway  
Temple Terrace, FL 33637-0926  
Telephone: 813/ 632-7600  
Fax: 813/ 632-7665

12. Any reports; data, notifications; certifications; and, requests, required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency  
Region 4  
Air, Pesticides & Toxics Management Division  
Air and EPCRA Enforcement Branch  
Air Enforcement Section  
61 Forsyth Street  
Atlanta, Georgia 30303-8960  
Telephone: 404/562-9155; Fax: 404/562-9163

13. Certification by Responsible Official (RO). In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information.  
[Rule 62-213.420(4), F.A.C.]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

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**Subsections A. & B.**

[Reserved.]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection C. Emissions Units 001 - 003**

**The specific conditions in this section apply to the following emissions units:**

<b>E.U. ID No.</b>	<b>Brief Description</b>
001	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit 1
002	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit 2
003	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit 3

Each of the three municipal waste combustor (MWCs) have a nominal design rate capacity of 400 tons MSW per day, 150 MMBtu per hour (excluding 9.9 MMBtu/hr from the combustion air preheaters) and 94,270 pounds steam per hour with MSW having a heating value of 4,500 Btu per pound. The “operating window” of 115 percent (%) over the nominal design rate of 150 MMBtu heat input corresponds to 172.5 MMBtu/hr heat input and 102,000 lbs steam/hour per each boiler. By letter dated March 17, 1998, D.B Riley, Inc. (the boilers’ manufacturer) indicated that it performed an evaluation of each boiler’s ability to operate at the proposed increase steam flow of 102,000 lbs steam/hr and concluded that each boiler can safely operate at an increased continuous steam generation rate of 103,700 lbs steam/hr. Short-term capacity is limited by limiting steam production (102,000 lb/hr), which effectively limits heat input. The units have a designed net steam energy of 1,158 Btu/lb (1378.86 Btu/lb steam enthalpy – 220 Btu/lb feed water enthalpy). Natural gas fired auxiliary burners and combustion control systems, with continuous monitoring devices for combustion and process parameters and SO<sub>2</sub>, NO<sub>x</sub> and CO, are installed to improve combustion efficiency and control. The air pollution control equipment consists of a spray dryer absorber, a fabric filter, and activated carbon injection system. A selective non-catalytic reduction system (SNCR) and auxiliary gas burners are installed in the furnaces. Emissions exhaust through a 220 feet tall stack.

**Compliance Assurance Monitoring (CAM) Applicability**

The current Title V Permit contains emission limits that are equal to the NSPS, 40 CFR Subpart Cb, limits for particulate matter, cadmium, lead, hydrogen chloride, and dioxins/furans. Therefore, CAM is not applicable to these pollutants. And, because there are no control devices in place to control emissions of volatile organic compounds, fluoride, and sulfuric acid mist, CAM does not apply to these pollutants. In addition, the Applicant provided justification that demonstrated that the uncontrolled potentials to emit the pollutants (PTE) for mercury and beryllium are significantly less than ten (10) tons per year. Thus, CAM does not apply to these pollutants. Hillsborough County has committed to use the existing nitrogen oxides, sulfur dioxide, and carbon monoxide CEMS systems to demonstrate compliance with the permit limits, therefore the control devices for these pollutants are exempt from CAM.

{Permitting note(s): These emissions units are regulated under NSPS - 40 CFR 60, Subpart Cb, Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors That Are Constructed on or Before September 20, 1994, adopted and incorporated by reference, subject to provisions in Rule 62-204.800(8)(b), F.A.C.; NSPS - 40 CFR 60, Subpart E, Standards of Performance for Incinerators, adopted and incorporated by reference in Rule 62-204.800(7), F.A.C.; Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD); Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT); Rule 62-296.401(2), F.A.C., Incinerators; and, Rule 62-296.416, F.A.C., Waste-to-Energy Facilities. Note: This project is subject to the requirements of 40 CFR 60, Subpart Cb. This permit may refer to the requirements of 40 CFR 60, Subpart Eb, where these requirements are referenced by Subpart Cb.}

**The following conditions apply to the emissions unit(s) listed above:**

**Essential Potential to Emit (PTE) Parameters**

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection C. Emissions Units 001 - 003

**C.1. Capacity.** The maximum individual MWC throughput shall not exceed 460 tons MSW per day (1380 tons per day entire facility), and, 102,000 pounds steam per hour (on a 4-hour block arithmetic average). The incinerators/boilers shall not be loaded in excess of their maximum operating capacity, equivalent to 1380 tons MSW per day total, but no more than 1200 tons MSW per day on an annual (52 week rolling average) average basis for the entire facility.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and PSD-FL-121(C).]

**C.2. Capacity.** The procedures specified in paragraphs (1) and (2) shall be used for calculating municipal waste combustor unit capacity as defined under 40 CFR 60.51b.

(1) For municipal waste combustor units capable of combusting municipal solid waste continuously for a 24-hour period, municipal waste combustor unit capacity shall be calculated based on 24 hours of operation at the maximum charging rate. The maximum charging rate shall be determined as specified in paragraphs (i) and(ii) as applicable.

(i) For combustors that are designed based on heat capacity, the maximum charging rate shall be calculated based on the maximum design heat input capacity of the unit and a heating value of 12,800 kilojoules per kilogram for combustors firing refuse-derived fuel and a heating value of 10,500 kilojoules per kilogram for combustors firing municipal solid waste that is not refuse-derived fuel.

(ii) For combustors that are not designed based on heat capacity, the maximum charging rate shall be the maximum design charging rate.

[40 CFR 60.31b and 40 CFR 60.58b(j).]

**C.3. Emissions Unit Operating Rate Limitation After Testing.** See specific condition **C.51.**

[Rule 62-297.310(2), F.A.C.]

**C.4. Maximum Demonstrated Municipal Waste Combustor Unit Load.** Unit load means the steam load of the municipal waste combustor measured as specified in 40 CFR 60.58b(I)(6). Each unit shall not operate at a load level greater than 110 percent of the unit's "maximum demonstrated unit load." Maximum demonstrated municipal waste combustor unit load means the highest 4-hour arithmetic average municipal waste combustor unit load achieved during four consecutive hours during the most recent dioxin/furan performance test demonstrating compliance with the applicable limit for municipal waste combustor organics specified in specific condition **C.25**. Higher loads are allowed for testing purposes as specified in 40 CFR 60.53b(b).

[40 CFR 60.34b(b) and 40 CFR 60.51b; and, PSD-FL-121(C)]

**C.5. Maximum Demonstrated Particulate Matter Control Device Temperature.** Maximum demonstrated particulate matter control device temperature means the highest 4-hour arithmetic average flue gas temperature measured at the particulate matter control device inlet during four consecutive hours during the most recent dioxin/furan performance test demonstrating compliance with the applicable limit for municipal waste combustor organics specified in Specific Condition **C.25**.

[40 CFR 60.34b(b) and 40 CFR 60.51b]

**C.6.0. Methods of Operation - Fuels.** The primary fuel for the facility is municipal solid waste (MSW), including the items and materials that fit within the definition of MSW contained in either 40 CFR 60.51b or Section 403.706(5), Florida Statutes (1995).

**C.6.1.** Subject to the limitations contained in this permit, the authorized fuels for the facility also include the other solid wastes that are not MSW which are described below. However, the facility shall not knowingly burn:

- (a) those materials that are prohibited by state or federal law;
- (b) those materials that are prohibited by this permit;
- (c) lead acid batteries;
- (d) hazardous waste;
- (e) nuclear waste;



## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection C. Emissions Units 001 - 003

- (f) radioactive waste;
- (g) sewage sludge;
- (h) explosives;
- (i) beryllium-containing waste as defined in 40 CFR 61.31(g);
- (j) untreated biomedical waste from biomedical waste generators regulated pursuant to Chapter 64E-16, F.A.C., and from other similar generators (or sources);
- (k) segregated loads of biological waste.

**C.6.2.** The fuel may be received either as a mixture or as a single-item stream (segregated load) of discarded materials. If the facility intends to use an authorized fuel that is segregated non-MSW material, the fuel shall be either:

- (a) well mixed with MSW in the refuse pit; or
- (b) alternately charged with MSW in the hopper.

**C.6.3.** The facility operator shall prepare and maintain records concerning the description and quantities of all segregated loads of non-MSW material which are received and used as fuel at the facility, and subject to a percentage weight limitation, below (C.6.6. and C.6.7.). For the purposes of this permit, a segregated load is defined to mean a container or truck that is almost completely or exclusively filled with a single item or homogeneous composition of waste material, as determined by visual observation.

**C.6.4.** To ensure that the facility's fuel does not adversely affect the facility's combustion process or emissions, the facility operator shall:

- (a) comply with good combustion operating practices in accordance with 40 CFR 60.53b;
- (b) install, operate and maintain continuous emissions monitors (CEMS) for oxygen, carbon monoxide, sulfur dioxide, oxides of nitrogen and temperature in accordance with 40 CFR 60.58b; and
- (c) record and maintain the CEMS data in accordance with 40 CFR 60.59b.

These steps shall be used to ensure and verify continuous compliance with the emissions limitations in this permit.

Natural gas may be used as fuel during warm-up, startup, shutdown, and malfunction periods, and at other times when necessary and consistent with good combustion practices.

**C.6.5.** Subject to the conditions and limitations contained in this permit, the following other solid waste may be used as fuel at the facility:

- (a) Confidential, proprietary or special documents (including but not limited to business records, lottery tickets, event tickets, coupons and microfilm);
- (b) Contraband which is being destroyed at the request of appropriately authorized local, state or federal governmental agencies, provided that such material is not an explosive, a propellant, a hazardous waste, or otherwise prohibited at the facility. For the purposes of this section, contraband includes but is not limited to drugs, narcotics, fruits, vegetables, plants, counterfeit money, and counterfeit consumer goods;
- (c) Wood pallets, clean wood, and land clearing debris;
- (d) Packaging materials and containers;
- (e) Clothing, natural and synthetic fibers, fabric remnants, and similar debris, including but not limited to aprons and gloves; or
- (f) Rugs, carpets, and floor coverings, but not asbestos-containing materials or polyethylene or polyurethane vinyl floor coverings.

**C.6.6.** Subject to the conditions and limitations contained in this permit, waste tires may be used as fuel at the facility. The total quantity of waste tires received as segregated loads and burned at the facility shall not exceed 3%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined on a calendar month basis in accordance with specific condition **C.86.** below.

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection C. Emissions Units 001 - 003

**C.6.7.** Subject to the conditions and limitations contained in this permit, the following other solid waste materials may be used as fuel at the facility (i.e. the following are authorized fuels that are non-MSW material). The total quantity of the following non-MSW material received as segregated loads and burned at the facility shall not exceed 5%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined on a calendar month basis in accordance with specific condition **C.86.** below.

- (a) Construction and demolition debris.
- (b) Oil spill debris from aquatic, coastal, estuarine or river environments. Such items or materials include but are not limited to rags, wipes, and absorbents.
- (c) Items suitable for human, plant or domesticated animal use, consumption or application where the item's shelf-life has expired or the generator wishes to remove the items from the market. Such items or materials include but are not limited to off-specification or expired consumer products, pharmaceuticals, medications, health and personal care products, cosmetics, foodstuffs, nutritional supplements, returned goods, and controlled substances.
- (d) Consumer-packaged products intended for human or domesticated animal use or application but not consumption. Such items or materials include but are not limited to carpet cleaners, household or bathroom cleaners, polishes, waxes and detergents.
- (e) Waste materials that:
  - (i) are generated in the manufacture of items in categories (c) or (d), above and are functionally or commercially useless (expired, rejected or spent); or
  - (ii) are not yet formed or packaged for commercial distribution. Such items or materials must be substantially similar to other items or materials routinely found in MSW.
- (f) Waste materials that contain oil from:
  - (i) the routine cleanup of industrial or commercial establishments and machinery; or
  - (ii) spills of virgin or used petroleum products. Such items or materials include but are not limited to rags, wipes, and absorbents.
- (g) Used oil and used oil filters. Used oil containing a PCB concentration equal or greater than 50 ppm shall not be burned, pursuant to the limitations of 40 CFR 761.20(e).

{Permitting note: Waste materials specifically authorized above do not require Department approval.}

(h) Waste materials generated by manufacturing, industrial or agricultural activities, provided that these items or materials are substantially similar to items or materials that are found routinely in MSW, subject to prior approval of the Department.

#### **C.6.8. Auxiliary Burners:**

- (a) Auxiliary burners for each unit shall be fired only by natural gas. The annual capacity factor for natural gas shall be 10 percent or less. Monthly records shall be maintained of the amount of natural gas used by the auxiliary burners in each unit; and, the equivalent gross heat input. On an annual basis (no later than 60 days after the end of the calendar year), a demonstration must be performed based on the monthly records showing that the capacity factor for natural gas in each unit was 10 percent or less. The annual capacity factor for natural gas is the ratio between the heat input to the unit from natural gas and the potential heat input to the unit had it been operated for 8760 hours during a calendar year at the maximum steady state design heat input capacity.
- (b) During boiler startup, the auxiliary burners shall be operating at their maximum capacity prior to the introduction of municipal solid waste to the boilers, and shall remain in operation until the lime spray dryer and particulate control device are fully operational.

[Rules 62-4.160(2) and 62-213.440(1), F.A.C.; and, PSD-FL-121(C)]

**C.7. Hours of Operation.** This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year.

[Rule 62-210.200(PTE), F.A.C.]

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection C. Emissions Units 001 - 003

#### Operating Practices and Requirements

**C.8.** No owner or operator of an affected facility shall cause such facility to operate at a load level greater than 110 percent of the maximum demonstrated municipal waste combustor unit load as defined in specific condition C.4., except as specified below. The averaging time is specified in specific condition C.10.

(1) During the annual dioxin/furan performance test and the two weeks preceding the annual dioxin/furan performance test, no municipal waste combustor unit load limit is applicable.

(2) The municipal waste combustor unit load limit may be waived in accordance with permission granted by the Administrator or delegated State regulatory authority for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

[40 CFR 60.34b(b) and 40 CFR 60.53b(b)]

**C.9.** No owner or operator of an affected facility shall cause such facility to operate at a temperature, measured at the particulate matter control device inlet, exceeding 17 °C above the maximum demonstrated particulate matter control device temperature as defined in specific condition C.5., except as specified below. The averaging time is specified in specific condition C.10. These requirements apply to each particulate matter control device utilized at the affected facility.

(1) During the annual dioxin/furan performance test and the two weeks preceding the annual dioxin/furan performance test, no particulate matter control device temperature limitations are applicable.

(2) The particulate matter control device temperature limits may be waived in accordance with permission granted by the Administrator or delegated State regulatory authority for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

[40 CFR 60.34b(b) and 40 CFR 60.53b(c)]

**C.10.** Operating Requirements. The procedures specified in paragraphs (1) through (12) shall be used for determining compliance with the operating requirements under 40 CFR 60.53b.

(1) Compliance with the carbon monoxide emission limits in 40 CFR 60.53b(a) shall be determined using a 4-hour block arithmetic average for all types of affected facilities except mass burn rotary waterwall municipal waste combustors and refuse-derived fuel stokers.

(2) For affected mass burn rotary waterwall municipal waste combustors and refuse-derived fuel stokers, compliance with the carbon monoxide emission limits in 40 CFR 60.53b(a) shall be determined using a 24-hour daily arithmetic average.

(3) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring carbon monoxide at the combustor outlet and record the output of the system and shall follow the procedures and methods specified in paragraphs(i) through(iii).

(i) The continuous emission monitoring system shall be operated according to Performance Specification 4A in appendix B of 40 CFR 60.

(ii) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 4A in appendix B of 40 CFR 60, carbon monoxide and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (A) and (B).

(A) For carbon monoxide, EPA Reference Method 10, 10A, or 10B shall be used.

(B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, as applicable shall be used.

(iii) The span value of the continuous emission monitoring system shall be 125 percent of the maximum estimated hourly potential carbon monoxide emissions of the municipal waste combustor unit.

(4) The 4-hour block and 24-hour daily arithmetic averages specified in paragraphs (1) and (2) shall be calculated from 1-hour arithmetic averages expressed in parts per million by volume corrected to 7 percent oxygen (dry

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection C. Emissions Units 001 - 003

basis). The 1-hour arithmetic averages shall be calculated using the data points generated by the continuous emission monitoring system. At least two data points shall be used to calculate each 1-hour arithmetic average. (5) The owner or operator of an affected facility may request that compliance with the carbon monoxide emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in 40 CFR 60.58b(b)(6).

(6) The procedures specified in paragraphs (i) through (v) shall be used to determine compliance with load level requirements under 40 CFR 60.53b(b).

(i) The owner or operator of an affected facility with steam generation capability shall install, calibrate, maintain, and operate a steam flow meter or a feed water flow meter; measure steam (or feed water) flow in kilograms per hour (or pounds per hour) on a continuous basis; and record the output of the monitor. Steam (or feed water) flow shall be calculated in 4-hour block arithmetic averages.

(ii) The method included in the "American Society of Mechanical Engineers Power Test Codes: Test Code for Steam Generating Units, Power Test Code 4.1-1964 (R1991)" section 4 (incorporated by reference, see 40 CFR 60.17) shall be used for calculating the steam (or feed water) flow required under paragraph (6)(i). The recommendations in "American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th edition (1971)," chapter 4 (incorporated by reference-see 40 CFR 60.17) shall be followed for design, construction, installation, calibration, and use of nozzles and orifices except as specified in (iii).

(iii) Measurement devices such as flow nozzles and orifices are not required to be recalibrated after they are installed.

(iv) All signal conversion elements associated with steam (or feed water flow) measurements must be calibrated according to the manufacturer's instructions before each dioxin/furan performance test, and at least once per year.

(7) To determine compliance with the maximum particulate matter control device temperature requirements under 40 CFR 60.53b(c), the owner or operator of an affected facility shall install, calibrate, maintain, and operate a device for measuring on a continuous basis the temperature of the flue gas stream at the inlet to each particulate matter control device utilized by the affected facility. Temperature shall be calculated in 4-hour block arithmetic averages.

(8) The maximum demonstrated municipal waste combustor unit load shall be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in 40 CFR 60.52b(c) is achieved. The maximum demonstrated municipal waste combustor unit load shall be the highest 4-hour arithmetic average load achieved during four consecutive hours during the most recent test during which compliance with the dioxin/furan emission limit was achieved.

(9) For each particulate matter control device employed at the affected facility, the maximum demonstrated particulate matter control device temperature shall be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in 40 CFR 60.52b(c) is achieved. The maximum demonstrated particulate matter control device temperature shall be the highest 4-hour arithmetic average temperature achieved at the particulate matter control device inlet during four consecutive hours during the most recent test during which compliance with the dioxin/furan limit was achieved.

(10) At a minimum, valid continuous emission monitoring system hourly averages shall be obtained as specified in paragraphs(i) and(ii) for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that the affected facility is combusting municipal solid waste.

(i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

(ii) At a minimum, each carbon monoxide 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.

(11) All valid continuous emission monitoring system data must be used in calculating the parameters specified under 40 CFR 60.58b(i) even if the minimum data requirements of paragraph (10) are not met. When carbon

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### Subsection C. Emissions Units 001 - 003

monoxide continuous emission data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved by the Administrator or EPA Reference Method 10 to provide, as necessary, the minimum valid emission data.

(12) Quarterly accuracy determinations and daily calibration drift tests for the carbon monoxide continuous emission monitoring system shall be performed in accordance with procedure I in appendix F of 40 CFR 60. [40 CFR 60.38b and 40 CFR 60.58b(i)]

#### Operator Training and Certification

**C.11. Standards for municipal waste combustor operator training and certification.**

(a) No later than the date 6 months after the date of startup of an affected facility or 12 months after State plan approval [40 CFR 60.39b(c)(4)(ii)], whichever is later, each chief facility operator and shift supervisor shall obtain and maintain a current provisional operator certification from either the American Society of Mechanical Engineers [QRO-1-1994 (incorporated by reference - see 40 CFR 60.17 of Subpart A)] or a State certification program.

(b) No later than the date 6 months after the date of startup of an affected facility or 12 months after State plan approval [40 CFR 60.39b(c)(4)(ii)], whichever is later, each chief facility operator and shift supervisor shall have completed full certification or shall have scheduled a full certification exam with either the American Society of Mechanical Engineers [QRO-1-1994 (incorporated by reference - see 40 CFR 60.17 of Subpart A)] or a State certification program.

(c) No owner or operator of an affected facility shall allow the facility to be operated at any time unless one of the following persons is on duty and at the affected facility: A fully certified chief facility operator, a provisionally certified chief facility operator who is scheduled to take the full certification exam according to the schedule specified in paragraph (b), a fully certified shift supervisor, a provisionally certified shift supervisor who is scheduled to take the full certification exam according to the schedule specified in paragraph (b).

(1) The requirement specified in paragraph (c) shall take effect 6 months after the date of startup of the affected facility or 12 months after State plan approval [40 CFR 60.39b(c)(4)(ii)], whichever is later.

(2) If one of the persons listed in paragraph (c) must leave the affected facility during their operating shift, a provisionally certified control room operator who is onsite at the affected facility may fulfill the requirement in paragraph (c).

(d) All chief facility operators, shift supervisors, and control room operators at affected facilities must complete the EPA or State municipal waste combustor operator training course no later than the date 6 months after the date of startup of the affected facility, or by 12 months after State plan approval [40 CFR 60.39b(c)(4)(iii)], whichever is later.

(e) The owner or operator of an affected facility shall develop and update on a yearly basis a site-specific operating manual that shall, at a minimum, address the elements of municipal waste combustor unit operation specified in paragraphs (e)(1) through (e)(11).

(1) A summary of the applicable standards;

(2) A description of basic combustion theory applicable to a municipal waste combustor unit;

(3) Procedures for receiving, handling, and feeding municipal solid waste;

(4) Municipal waste combustor unit startup, shutdown, and malfunction procedures;

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

(6) Procedures for operating the municipal waste combustor unit within the standards established;

(7) Procedures for responding to periodic upset or off-specification conditions;

(8) Procedures for minimizing particulate matter carryover;

(9) Procedures for handling ash;

(10) Procedures for monitoring municipal waste combustor unit emissions; and

(11) Reporting and recordkeeping procedures.

(f) The owner or operator of an affected facility shall establish a training program to review the operating manual according to the schedule specified in paragraphs (f)(1) and (f)(2) with each person who has responsibilities

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### Subsection C. Emissions Units 001 - 003

affecting the operation of an affected facility including, but not limited to, chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers.

(1) Each person specified in paragraph (f) shall undergo initial training no later than the date specified in paragraph (f)(1)(i), (f)(1)(ii), or (f)(1)(iii), whichever is later.

(i) The date 6 months after the date of startup of the affected facility;

(ii) The date prior to the day the person assumes responsibilities affecting municipal waste combustor unit operation; or

(iii) 12 months after State plan approval [40 CFR 60.39b(c)(4)(iii)].

(2) Annually, following the initial review required by paragraph (f)(1).

(g) The operating manual required by paragraph (e) shall be kept in a readily accessible location for all persons required to undergo training under paragraph (f). The operating manual and records of training shall be available for inspection by the EPA or its delegated enforcement agency upon request.

[40 CFR 60.35b, 40 CFR 60.39b(c)(4)(ii) & (iii), and 40 CFR 60.54b]

**C.12.** The requirement specified in 40 CFR 60.54b(d) does not apply to chief operators, shift supervisors, and control room operators who have obtained full certification from the American Society of Mechanical Engineers on or before the date of State plan approval.

[40 CFR 60.39b(c)(4)(iii)(A)]

**C.13.** The owner or operator of a designated facility may request that the EPA Administrator waive the requirement specified in 40 CFR 60.54b(d) for chief operators, shift supervisors, and control room operators who have obtained provisional certification from the American Society of Mechanical Engineers on or before the date of State plan approval.

[40 CFR 60.39b(c)(4)(iii)(B)]

**C.14.** The initial training requirements specified in 40 CFR 60.54b(f)(1) shall be completed no later than the date specified in (1), (2), or (3), whichever is later.

(1) The date six (6) months after the date of startup of the affected facility;

(2) Twelve (12) months after State plan approval; or

(3) The date prior to the day when the person assumes responsibilities affecting municipal waste combustor unit operation.

[40 CFR 60.39b(c)(4)(iii)(C)]

#### **Emission Limitations and Standards**

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

{Permitting Note: Unless otherwise specified, the averaging times for Specific Conditions **C.15.** - **C.18.** and **C.22.** - **C.31.** are based on the specified averaging time of the applicable test method.}

{Permitting note: Equivalent emissions (pound per hour and pound per million Btu), where they appear, are listed for the purposes of providing information and to indicate the potential to emit and are not emission compliance standards.}

#### **Particulate Matter**

**C.15.** The emission limit for particulate matter contained in the gases discharged to the atmosphere from each MWC unit is 27 milligrams per dry standard cubic meter or 0.012 grain per dry standard cubic foot, corrected to 7 percent oxygen (equivalent to 0.024 lb/MMBtu, heat input and 4.1 lbs/hr) and 17.96 tons/yr.

[40 CFR 60.33b(a)(1)(i) and PSD-FL-121(C)]

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#### Visible Emissions

**C.16.** The emission limit for opacity exhibited by the gases discharged to the atmosphere from each MWC unit is 10 percent (6-minute block average).  
[40 CFR 60.33b(a)(1)(iii) and PSD-FL-121(C)]

#### Cadmium

**C.17.** The emission limit for cadmium contained in the gases discharged to the atmosphere from each MWC unit is 0.040 milligrams per dry standard cubic meter, corrected to 7 percent oxygen (equivalent to 3.47E-05 lb/MMBtu, heat input and 6.00E-03 lb/hr) and 0.026 ton/yr.  
[40 CFR 60.33b(a)(2)(i) and PSD-FL-121(C)]

#### Mercury

**C.18.** The emission limit for mercury contained in the gases discharged to the atmosphere from each MWC unit is 0.070 milligrams per dry standard cubic meter or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent (equivalent to 1.17E-04 lb/MMBtu, heat input or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent and 0.020 lb/hr or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent) and 0.087 ton/yr.  
[40 CFR 60.33b(a)(3); Rule 62-296.416(3)(a)1., F.A.C.; and, PSD-FL-121(C)]

**C.19.** Facilities subject to the mercury emissions limiting standard of Rule 62-296.416(3)(a)1., F.A.C., shall demonstrate individual emissions unit compliance by the compliance date specified in Rule 62-296.416(3)(a)2., F.A.C., and annually thereafter.  
[Rule 62-296.416(3)(a)3., F.A.C.]

**C.20.** [Reserved.]

**C.21.** [Reserved.]

#### Lead

**C.22.** The emission limit for lead contained in the gases discharged to the atmosphere from each MWC unit is 0.44 milligrams per dry standard cubic meter, corrected to 7 percent oxygen (equivalent to 3.81E-04 lb/MMBtu, heat input and 0.065 lb/hr) and 0.288 ton/yr.  
[40 CFR 60.33b(a)(4) and PSD-FL-121(C)]

#### Sulfur Dioxide

**C.23.** The emission limit for sulfur dioxide contained in the gases discharged to the atmosphere from each MWC unit is 29 parts per million by volume or 25 percent of the potential sulfur dioxide emission concentration (75-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent (equivalent to 0.190 lb/MMBtu, heat input or 25 percent of the potential sulfur dioxide emission concentration (75-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent and 32.86 lbs/hr or 25 percent of the potential sulfur dioxide emission concentration (75-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent) and 143.9 tons/yr. Compliance with this emission limit is based on a 24-hour daily geometric mean.  
[40 CFR 60.33b(b)(3)(i) and PSD-FL-121(C)]

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection C. Emissions Units 001 - 003

#### Hydrogen Chloride

**C.24.** The emission limit for hydrogen chloride contained in the gases discharged to the atmosphere from each MWC unit is 29 parts per million by volume or 5 percent of the potential hydrogen chloride emission concentration (95-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent (0.099 lb/MMBtu, heat input or 5 percent of the potential hydrogen chloride emission concentration (95-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent and 17.00 lbs/hr or 5 percent of the potential hydrogen chloride emission concentration (95-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent) and 74.43 tons/yr. [40 CFR 60.33b(b)(3)(ii) and PSD-FL-121(C)]

#### Dioxins/Furans

**C.25.** The emission limit for dioxins/furans contained in the gases discharged to the atmosphere from each MWC unit that do not employ an electrostatic precipitator-based emission control system is 30 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen (equivalent to 2.60E-08 lb/MMBtu, heat input and 4.5E-06 lb/hr) and 1.96E-05 ton/yr. [40 CFR 60.33b(c)(1)(ii) and PSD-FL-121(C)]

#### Nitrogen Oxides

**C.26.** The emission limit for nitrogen oxides contained in the gases discharged to the atmosphere from each MWC unit is 205 parts per million by volume, corrected to 7 percent oxygen, dry basis (equivalent to 0.34 lb/MMBtu, heat input and 58.63 lbs/hr) and 256 tons/yr. Compliance with this emission limit is based on a 24-hour daily arithmetic mean.

Nitrogen oxide emissions from the auxiliary burners are approximately 3.45 lbs/hr and 15.1 tons/yr per unit. These emissions are part of, and not in addition to, combustor emissions. Allowable emissions for MSW combustors include auxiliary burners. This facility is limited to a 10 percent (0.10) or less, total annual gross heat input for natural gas consumption. Auxiliary burners for each MWC unit shall be fired only by natural gas, and consumption of natural gas shall not exceed 104,937,500 cubic feet per MWC unit in any calendar year (i.e., annual capacity factor for natural gas of 10% or less as determined by 40 CFR 60.44b(d)). [40 CFR 60.33b(d) and PSD-FL-121(C)]

#### Carbon Monoxide

**C.27.** The emission limit for carbon monoxide contained in the gases discharged to the atmosphere from each MWC unit is 100 parts per million by volume, measured at the combustor outlet in conjunction with a measurement of oxygen concentration, corrected to 7 percent oxygen, dry basis (equivalent to 0.101 lb/MMBtu, heat input and 17.4 lbs/hr) and 76.26 tons/yr. Calculated as an arithmetic average. Averaging time is a 4-hour block average. [40 CFR 60.34b(a); Rules 62-212.400(2)(g) and 62-212.400(5), F.A.C.; and, PSD-FL-121(C)]

#### Fluoride

**C.28.** The emission limit for fluoride contained in the gases discharged to the atmosphere from each MWC unit is 6.74 milligrams per dry standard cubic meter, corrected to 7 percent oxygen (equivalent to 0.0059 lb/MMBtu, heat input and 1.00 lbs/hr) and 4.43 tons/yr. [PSD-FL-121(C)]

#### Beryllium



## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection C. Emissions Units 001 - 003

**C.29.** The emission limit for beryllium contained in the gases discharged to the atmosphere from each MWC unit is 1.48 micrograms per dry standard cubic meter, corrected to 7 percent oxygen (equivalent to 1.27E-06 lb/MMBtu, heat input and 2.18E-04 lbs/hr) and 9.6E-04 ton/yr.  
[Rules 62-212.400(2)(g) and 62-212.400(5), F.A.C.; and, PSD-FL-121(C)]

#### Volatile Organic Compounds

**C.30.** The emission limit for volatile organic compounds contained in the gases discharged to the atmosphere from each MWC unit shall not exceed 0.01 grain per dry standard cubic foot, corrected to 12 percent carbon dioxide or 0.2 lb/ton, whichever is more restrictive, to be demonstrated during the initial compliance test, only.  
[PSD-FL-104 and PSD-FL-121(C)]

#### Sulfuric Acid Mist

**C.31.** The emission limit for sulfuric acid mist contained in the gases discharged to the atmosphere from each MWC unit shall not exceed 0.072 grain per dry standard cubic foot, corrected to 12 percent carbon dioxide, to be demonstrated during the initial compliance test, only.  
[PSD-FL-121(C)]

#### Excess Emissions

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of an NSPS, NESHAP, or Acid Rain program provision.}

**C.32.** The opacity standards set forth in 40 CFR 60 shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.  
[40 CFR 60.11(c)]

**C.33.** At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.  
[40 CFR 60.11(d)]

**C.34.1. Startup, Shutdown and Malfunction.** The standards under 40 CFR 60, Subpart Cb apply at all times except during periods of startup, shutdown, or malfunction. Duration of startup or shutdown periods are limited to 3 hours per occurrence.

(i) The startup period commences when the affected facility begins the continuous burning of municipal solid waste and does not include any warm-up period when the affected facility is combusting fossil fuel or other nonmunicipal solid waste fuel, and no municipal solid waste is being fed to the combustor.

(ii) Continuous burning is the continuous, semicontinuous, or batch feeding of municipal solid waste for purposes of waste disposal, energy production, or providing heat to the combustion system in preparation for waste disposal or energy production. The use of municipal solid waste solely to provide thermal protection of the grate or hearth during the startup period when municipal solid waste is not being fed to the grate is not considered to be continuous burning.

[40 CFR 60.38b and 40 CFR 60.58b(a)]

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection C. Emissions Units 001 - 003

**C.34.2.** For the purpose of compliance with the carbon monoxide emission limits in 40 CFR 60.53b(a), if a loss of boiler water level control (e.g., loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction, the duration of the malfunction period is limited to 15 hours per occurrence. [40 CFR 60.58b(a)(1)iii]

**C.35.** Excess emissions resulting from malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed three hours per occurrence. A malfunction means any sudden and unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner. [Rule 62-210.700(1), F.A.C.; and, PSD-FL-121(C)]

**C.36.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

#### **Test Methods and Procedures**

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

**C.37.** Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. [40 CFR 60.8(c)]

#### **Particulate Matter and Opacity**

**C.38.** The procedures and test methods specified in paragraphs (1) through (11) shall be used to determine compliance with the emission limits for particulate matter and opacity.

(1) The EPA Reference Method 1 shall be used to select sampling site and number of traverse points.

(2) The EPA Reference Method 3, 3A, or 3B, as applicable shall be used for gas analysis.

(3) The EPA Reference Method 5 shall be used for determining compliance with the particulate matter emission limit. The minimum sample volume shall be 1.7 cubic meters. The probe and filter holder heating systems in the sample train shall be set to provide a gas temperature no greater than  $160 \pm 14$  °C. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 5 run.

(4) The owner or operator of an affected facility may request that compliance with the particulate matter emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (6).

(5) As specified under 40 CFR 60.8, all performance tests shall consist of three test runs. The average of the particulate matter emission concentrations from the three test runs is used to determine compliance.

(6) In accordance with paragraphs (7) and (11), EPA Reference Method 9 shall be used for determining compliance with the opacity limit except as provided under 40 CFR 60.11(e)

(7) The owner or operator of an affected facility shall conduct an initial performance test for particulate matter emissions and opacity as required under 40 CFR 60.8.

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection C. Emissions Units 001 - 003**

(8) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous opacity monitoring system for measuring opacity and shall follow the methods and procedures specified in paragraphs (8)(i) through (8)(iv).

(i) The output of the continuous opacity monitoring system shall be recorded on a 6-minute average basis.

(ii) The continuous opacity monitoring system shall be installed, evaluated, and operated in accordance with 40 CFR 60.13.

(iii) The continuous opacity monitoring system shall conform to Performance Specification 1 in appendix B of 40 CFR 60.

(iv) The initial performance evaluation shall be completed no later than 180 days after the date of the initial startup of the municipal waste combustor unit, as specified under 40 CFR 60.8.

(9) Following the date that the initial performance test for particulate matter is completed or is required to be completed under 40 CFR 60.8 for an affected facility, the owner or operator shall conduct a performance test for particulate matter on an annual basis (no more than 12 calendar months following the previous performance test).

(10) [reserved]

(11) Following the date that the initial performance test for opacity is completed or is required to be completed under 40 CFR 60.8 for an affected facility, the owner or operator shall conduct a performance test for opacity on an annual basis (no more than 12 calendar months following the previous performance test) using the test method specified in paragraph (6).

[40 CFR 60.38b and 40 CFR 60.58b(c)]

**Cadmium, Lead and Mercury**

**C.39.** The procedures and test methods specified in paragraphs (1) and (2) shall be used to determine compliance with the emission limits for cadmium, lead, and mercury.

(1) The procedures and test methods specified in paragraphs (1)(i) through (1)(ix) shall be used to determine compliance with the emission limits for cadmium and lead.

(i) The EPA Reference Method 1 shall be used for determining the location and number of sampling points.

(ii) The EPA Reference Method 3, 3A, or 3B, as applicable, shall be used for flue gas analysis.

(iii) The EPA Reference Method 29 shall be used for determining compliance with the cadmium and lead emission limits.

(iv) An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 29 test run for cadmium and lead required under paragraph (1)(iii).

(v) The owner or operator of an affected facility may request that compliance with the cadmium or lead emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph 40 CFR 60.58b(b)(6).

(vi) All performance tests shall consist of a minimum of three test runs conducted under representative full load operating conditions. The average of the cadmium or lead emission concentrations from three test runs or more shall be used to determine compliance.

(vii) Following the date of the initial performance test or the date on which the initial performance test is required to be completed under 40 CFR 60.8, the owner or operator of an affected facility shall conduct a performance test for compliance with the emission limits for cadmium and lead on an annual basis (no more than 12 calendar months following the previous performance test).

(viii) [reserved]

(ix) [reserved]

(2) The procedures and test methods specified in paragraphs (2)(i) through (2)(xi) shall be used to determine compliance with the mercury emission limit.

(i) The EPA Reference Method 1 shall be used for determining the location and number of sampling points.

(ii) The EPA Reference Method 3, 3A, or 3B, as applicable, shall be used for flue gas analysis.

(iii) The EPA Reference Method 29 shall be used to determine the mercury emission concentration. The minimum sample volume when using Method 29 for mercury shall be 1.7 cubic meters.

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection C. Emissions Units 001 - 003**

- (iv) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 29 test run for mercury required under paragraph (2)(iii).
- (v) The percent reduction in the potential mercury emissions (%PHg) is computed using equation 1:

$$[\% P_{HG}] = \left[ \frac{E_i - E_o}{E_i} \right] \times 100 \quad (\text{equation 1})$$

where:

%PHG = percent reduction of the potential mercury emissions achieved.

$E_i$  = potential mercury emission concentration measured at the control device inlet, corrected to 7 percent oxygen (dry basis).

$E_o$  = controlled mercury emission concentration measured at the mercury control device outlet, corrected to 7 percent oxygen (dry basis).

(vi) All performance tests shall consist of a minimum of three test runs conducted under representative full load operating conditions. The average of the mercury emission concentrations or percent reductions from three test runs or more is used to determine compliance.

(vii) The owner or operator of an affected facility may request that compliance with the mercury emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph 40 CFR 60.58b(b)(6).

(viii) The owner or operator of an affected facility shall conduct an initial performance test for mercury emissions as required under 40 CFR 60.8.

(ix) Following the date that the initial performance test for mercury is completed or is required to be completed under 40 CFR 60.8, the owner or operator of an affected facility shall conduct a performance test for mercury emissions on an annual basis (no more than 12 calendar months from the previous performance test).

(x) [reserved]

(xi) The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit shall follow the procedures specified in 40 CFR 60.58b(m) for measuring and calculating carbon usage. See specific condition **C.81**.

[40 CFR 60.38b and 40 CFR 60.58b(d)]

**C.40. Mercury Emissions Test Method and Procedures.** All mercury emissions tests performed pursuant to the requirements of this rule shall comply with the following provisions.

1. The test method for mercury shall be EPA Method 29 adopted in Chapter 62-297, F.A.C.

2. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

(4) Flue Gas Temperature Standard. Waste-to-energy facilities choosing to control mercury emissions through the use of post-combustion control equipment designed to remove mercury from flue gases shall comply with the flue gas temperature standard of Rule 62-296.416(4)(a), F.A.C.

(a) Temperature Standard. The flue gas temperature standard set forth in 40 CFR 60.53b(c), incorporated by reference in Rule 62-04.800, F.A.C., shall apply.

(b) Temperature Monitoring. The temperature monitoring requirements set forth in 40 CFR 60.58b(i), incorporated by reference in Rule 62-204.800, F.A.C., shall apply.

(5) Carbon Usage Rate. The carbon injection rate operating standard and monitoring requirements set forth in 40 CFR 60.58b(m), incorporated by reference in Rule 62-204.800, F.A.C., shall apply. See specific condition **C.81**.

[Rule 62-296.416(3)(d), F.A.C.]

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection C. Emissions Units 001 - 003

#### Sulfur Dioxide

**C.41.** The procedures and test methods specified in paragraphs (1) through (14) shall be used for determining compliance with the sulfur dioxide emission.

(1) The EPA Reference Method 19, section 4.3, shall be used to calculate the daily geometric average sulfur dioxide emission concentration.

(2) The EPA Reference Method 19, section 5.4, shall be used to determine the daily geometric average percent reduction in the potential sulfur dioxide emission concentration.

(3) The owner or operator of an affected facility may request that compliance with the sulfur dioxide emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in 40 CFR 60.58b(b)(6).

(4) The owner or operator of an affected facility shall conduct an initial performance test for sulfur dioxide emissions as required under 40 CFR 60.8. Compliance with the sulfur dioxide emission limit (concentration or percent reduction) shall be determined by using the continuous emission monitoring system specified in paragraph (5) to measure sulfur dioxide and calculating a 24-hour daily geometric average emission concentration or a 24-hour daily geometric average percent reduction using EPA Reference Method 19, sections 4.3 and 5.4, as applicable.

(5) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring sulfur dioxide emissions discharged to the atmosphere and record the output of the system.

(6) Following the date that the initial performance test for sulfur dioxide is completed or is required to be completed under 40 CFR 60.8, compliance with the sulfur dioxide emission limit shall be determined based on the 24-hour daily geometric average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data if compliance is based on an emission concentration, or continuous emission monitoring system inlet and outlet data if compliance is based on a percent reduction.

(7) At a minimum, valid continuous monitoring system hourly averages shall be obtained as specified in paragraphs (7)(i) and (7)(ii) for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that the affected facility is combusting municipal solid waste.

(i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

(ii) Each sulfur dioxide 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.

(8) The 1-hour arithmetic averages required under paragraph (6) shall be expressed in parts per million corrected to 7 percent oxygen (dry basis) and used to calculate the 24-hour daily geometric average emission concentrations and daily geometric average emission percent reductions. The 1-hour arithmetic averages shall be calculated using the data points required under 40 CFR 60.13(e)(2).

(9) All valid continuous emission monitoring system data shall be used in calculating average emission concentrations and percent reductions even if the minimum continuous emission monitoring system data requirements of paragraph (7) are not met.

(10) The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the continuous emission monitoring system.

(11) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the municipal waste combustor as specified under 40 CFR 60.8.

(12) The continuous emission monitoring system shall be operated according to Performance Specification 2 in 40 CFR 60 Appendix B.

(i) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 2 in 40 CFR 60 appendix B, sulfur dioxide and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (A) and (B).

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection C. Emissions Units 001 - 003

(A) For sulfur dioxide, EPA Reference Method 6, 6A, or 6C shall be used.

(B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, as applicable shall be used.

(ii) The span value of the continuous emissions monitoring system at the inlet to the sulfur dioxide control device shall be 125 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit. The span value of the continuous emission monitoring system at the outlet of the sulfur dioxide control device shall be 50 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit.

(13) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 1 in appendix F of 40 CFR 60.

(14) When sulfur dioxide emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 75 percent of the hours per day that the affected facility is operated and combusting municipal solid waste for 90 percent of the days per calendar quarter that the affected facility is operated and combusting municipal solid waste.

[40 CFR 60.38b and 40 CFR 60.58b(e)]

### Hydrogen Chloride

**C.42.** The procedures and test methods specified in paragraphs (1) through (8) shall be used for determining compliance with the hydrogen chloride emission limit.

(1) The EPA Reference Method 26 or 26A, as applicable, shall be used to determine the hydrogen chloride emission concentration. The minimum sampling time for Method 26 shall be 1 hour.

(2) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 26 test run for hydrogen chloride required by paragraph (1).

(3) The percent reduction in potential hydrogen chloride emissions (% PHCl) is computed using equation 2:

$$\left[ \%P_{HCl} \right] = \left[ \frac{E_i - E_o}{E_i} \right] \times 100 \quad (\text{equation 2})$$

where:

%PHCl = percent reduction of the potential hydrogen chloride emissions achieved.

$E_i$  = potential hydrogen chloride emission concentration measured at the control device inlet, corrected to 7 percent oxygen (dry basis).

$E_o$  = controlled hydrogen chloride emission concentration measured at the control device outlet, corrected to 7 percent oxygen (dry basis).

(4) The owner or operator of an affected facility may request that compliance with the hydrogen chloride emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in 40 CFR 60.58b(b)(6).

(5) As specified under 40 CFR 60.8, all performance tests shall consist of three test runs. The average of the hydrogen chloride emission concentrations or percent reductions from the three test runs is used to determine compliance.

(6) The owner or operator of an affected facility shall conduct an initial performance test for hydrogen chloride as required under 40 CFR 60.8.

(7) Following the date that the initial performance test for hydrogen chloride is completed or is required to be completed under 40 CFR 60.8, the owner or operator of an affected facility shall conduct a performance test for

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection C. Emissions Units 001 - 003

hydrogen chloride emissions on an annual basis (no more than 12 calendar months following the previous performance test).

(8) [reserved]

[40 CFR 60.38b and 40 CFR 60.58b(f)]

#### Dioxin/Furan

**C.43.** The procedures and test methods specified in paragraphs (1) through (9) shall be used to determine compliance with the limits for dioxin/furan emissions.

(1) The EPA Reference Method 1 shall be used for determining the location and number of sampling points.

(2) The EPA Reference Method 3, 3A, or 3B, as applicable, shall be used for flue gas analysis.

(3) The EPA Reference Method 23 shall be used for determining the dioxin/furan emission concentration.

(i) The minimum sample time shall be 4 hours per test run.

(ii) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 23 test run for dioxins/furans.

(4) The owner or operator of an affected facility shall conduct an initial performance test for dioxin/furan emissions in accordance with paragraph (3), as required under 40 CFR 60.8.

(5) Following the date that the initial performance test for dioxins/furans is completed or is required to be completed under 40 CFR 60.8, the owner or operator of an affected facility shall conduct performance tests for dioxin/furan emissions in accordance with paragraph (3), according to one of the schedules specified in paragraphs (i) through (iii).

(i) For affected facilities, performance tests shall be conducted on an annual basis (no more than 12 calendar months following the previous performance test.)

(ii) [reserved]

(iii) Where all performance tests over a 2-year period indicate that dioxin/furan emissions are less than or equal to 15 nanograms per dry standard cubic meter (total mass) for all affected facilities located within a municipal waste combustor plant, the owner or operator of the municipal waste combustor plant may elect to conduct annual performance tests for one affected facility (i.e., unit) per year at the municipal waste combustor plant. At a minimum, a performance test for dioxin/furan emissions shall be conducted annually (no more than 12 months following the previous performance test) for one affected facility at the municipal waste combustor plant. Each year a different affected facility at the municipal waste combustor plant shall be tested, and the affected facilities at the plant shall be tested in sequence (e.g., unit 1, unit 2, unit 3, unit 4, as applicable). If each annual performance test continues to indicate a dioxin/furan emission level less than or equal to 15 nanograms per dry standard cubic meter (total mass), the owner or operator may continue conducting a

performance test on only one affected facility per year. If any annual performance test indicates a dioxin/furan emission level greater than 15 nanograms per dry standard cubic meter (total mass), performance tests thereafter shall be conducted annually on all affected facilities at the plant until and unless all annual performance tests for all affected facilities at the plant over a 2-year period indicate a dioxin/furan emission level less than or equal to 15 nanograms per dry standard cubic meter (total mass).

(6) The owner or operator of an affected facility that selects to follow the performance testing schedule specified in paragraph (5)(iii) shall follow the procedures specified in 40 CFR 60.59b(g)(4) for reporting the selection of this schedule.

(7) The owner or operator of an affected facility where activated carbon is used to comply with the dioxin/furan emission limits specified in 40 CFR 60.52b(c) or the dioxin/furan emission level specified in paragraph (5)(iii) shall follow the procedures specified in 40 CFR 60.58b(m) for measuring and calculating the carbon usage rate.

(8) The owner or operator of an affected facility may request that compliance with the dioxin/furan emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in 40 CFR 60.58b(b)(6).

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(9) As specified under 40 CFR 60.8, all performance tests shall consist of three test runs. The average of the dioxin/furan emission concentrations from the three test runs is used to determine compliance.  
[40 CFR 60.38b and 40 CFR 60.58b(g)]

#### Nitrogen Oxides

**C.44.** The procedures and test methods specified in paragraphs (1) through (12) shall be used to determine compliance with the nitrogen oxides emission limit for affected facilities under Sec. 60.52b(d).

(1) The EPA Reference Method 19, section 4.1, shall be used for determining the daily arithmetic average nitrogen oxides emission concentration.

(2) The owner or operator of an affected facility may request that compliance with the nitrogen oxides emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in 40 CFR 60.58b(b)(6).

(3) The owner or operator of an affected facility subject to the nitrogen oxides limit shall conduct an initial performance test for nitrogen oxides as required under 40 CFR 60.8. Compliance with the nitrogen oxides emission limit shall be determined by using the continuous emission monitoring system specified in paragraph (4) for measuring nitrogen oxides and calculating a 24-hour daily arithmetic average emission concentration using EPA Reference Method 19, section 4.1.

(4) The owner or operator of an affected facility subject to the nitrogen oxides emission shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring nitrogen oxides discharged to the atmosphere, and record the output of the system.

(5) Following the date that the initial performance test for nitrogen oxides is completed or is required to be completed under 40 CFR 60.8, compliance with the emission limit for nitrogen oxides shall be determined based on the 24-hour daily arithmetic average of the hourly emission concentrations using continuous emission monitoring system outlet data.

(6) At a minimum, valid continuous emission monitoring system hourly averages shall be obtained as specified in paragraphs (i) and (ii) for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that the affected facility is combusting municipal solid waste.

(i) At least 2 data points per hour shall be used to calculate each 1-hour arithmetic average.

(ii) Each nitrogen oxides 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.

(7) The 1-hour arithmetic averages required by paragraph (5) shall be expressed in parts per million by volume (dry basis) and used to calculate the 24-hour daily arithmetic average concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under 40 CFR 60.13(e)(2).

(8) All valid continuous emission monitoring system data must be used in calculating emission averages even if the minimum continuous emission monitoring system data requirements of paragraph (6) are not met.

(9) The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the continuous emission monitoring system. The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the municipal waste combustor unit, as specified under 40 CFR 60.8.

(10) The owner or operator of an affected facility shall operate the continuous emission monitoring system according to Performance Specification 2 in appendix B of 40 CFR 60 and shall follow the procedures and methods specified in paragraphs (i) and (ii).

(i) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 2 of appendix B of 40 CFR 60, nitrogen oxides and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (A) and (B).

(A) For nitrogen oxides, EPA Reference Method 7, 7A, 7C, 7D, or 7E shall be used.

(B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, as applicable shall be used.



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(ii) The span value of the continuous emission monitoring system shall be 125 percent of the maximum estimated hourly potential nitrogen oxide emissions of the municipal waste combustor unit.

(11) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 1 in appendix F of 40 CFR 60.

(12) When nitrogen oxides continuous emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved by the Administrator or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 75 percent of the hours per day for 90 percent of the days per calendar quarter the unit is operated and combusting municipal solid waste.

[40 CFR 60.38b and 40 CFR 60.58b(h)]

#### **Fluoride**

C.45. Compliance with the fluoride limits shall be demonstrated using EPA Method 13A or 13B during the initial compliance test and annually thereafter.

[PSD-FL-121(B)]

#### **Beryllium**

C.46. Compliance with the beryllium limits shall be demonstrated using EPA Method 29 during the initial compliance test and annually thereafter.

[PSD-FL-121(B)]

#### **Carbon Monoxide**

C.47. See Specific Condition C.10.

#### **Volatile Organic Compounds**

C.48. Compliance with the volatile organic compounds limits shall be demonstrated using EPA Method 18, 25 or 25A. This is an initial compliance test requirement and once satisfied, no further tests are required.

[PSD-FL-121(B)]

#### **Sulfuric Acid Mist**

C.49. Compliance with the sulfuric acid mist limits shall be demonstrated using EPA Method 8. This is an initial compliance test requirement and once satisfied, no further tests are required.

[PSD-FL-121(B)]

C.50. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

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### Subsection C. Emissions Units 001 - 003

[Rule 62-297.310(1), F.A.C.]

**C.51. Operating Rate During Testing.** Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Higher loads are allowed for testing purposes as specified at 40 CFR 60.53b(b).  
[Rules 62-297.310(2) & (2)(b), F.A.C.; and, PSD-FL-121(B)]

**C.52. Calculation of Emission Rate.** The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule.  
[Rule 62-297.310(3), F.A.C.]

**C.53. Applicable Test Procedures.**

**(a) Required Sampling Time.**

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.

2. **Opacity Compliance Tests.** When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

- a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
- b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
- c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

**(b) Minimum Sample Volume.** Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

**(c) Required Flow Rate Range.** For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

**(d) Calibration of Sampling Equipment.** Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, attached as part of this permit.

**(e) Allowed Modification to EPA Method 5.** When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

[Rule 62-297.310(4), F.A.C.]

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**C.54. Required Stack Sampling Facilities.** When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit. [Rule 62-297.310(6), F.A.C.]

**C.55. Frequency of Compliance Tests.** The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

**(a) General Compliance Testing.**

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

- a. Did not operate; or
- b. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

- a. Visible emissions, if there is an applicable standard;
- b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
- c. Each NESHAP pollutant, if there is an applicable emission standard.

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.

9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

**(b) Special Compliance Tests.** When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

**(c) Waiver of Compliance Test Requirements.** If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; and, SIP approved]

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### Subsection C. Emissions Units 001 - 003

#### Compliance With Standards and Maintenance Requirements

**C.55.1.** The existing continuous emission monitoring system (CEMS) shall be used to demonstrate compliance with the permit emission limits for NO<sub>x</sub>, SO<sub>2</sub>, and CO specified in Specific Conditions **C.26.**, **C.23.**, and **C.27.**, respectively. CEMS operational procedures and methodology as described in Specific Conditions **C.10.**, **C.41.**, **C.44.**, **C.59.**, **C.61.**, **C.62.**, and **C.63.** shall be utilized.

[Applicant request.]

**C.56.** Compliance with standards in 40 CFR 60, other than opacity standards, shall be determined by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard.

[40 CFR 60.11(a)]

**C.57.** Compliance with opacity standards in 40 CFR 60 shall be determined by conducting observations in accordance with Reference Method 9 in Appendix A of 40 CFR 60, any alternative method that is approved by the Administrator, or as provided in 40 CFR 60.11(e)(5).

[40 CFR 60.11(b)]

**C.58.** The owner or operator of an affected facility subject to an opacity standard may submit, for compliance purposes, continuous opacity monitoring system (COMS) data results produced during any performance test required under 40 CFR 60.8 in lieu of EPA Method 9 observation data. If an owner or operator elects to submit COMS data for compliance with the opacity standard, he or she shall notify the Administrator of that decision, in writing, at least 30 days before any performance test required under 40 CFR 60.8 is conducted. Once the owner or operator of an affected facility has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent tests required under 40 CFR 60.8 until the owner or operator notifies the Administrator, in writing, to the contrary. For the purpose of determining compliance with the opacity standard during a performance test required under 40 CFR 60.8 using COMS data, the minimum total time of COMS data collection shall be averages of all 6-minute continuous periods within the duration of the mass emission performance test. Results of the COMS opacity determinations shall be submitted along with the results of the performance test required under 60.8. The owner or operator of an affected facility using a COMS for compliance purposes is responsible for demonstrating that the COMS meets the requirements specified in 40 CFR 60.13(c), that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. If COMS data results are submitted for compliance with the opacity standard for a period of time during which EPA Method 9 data indicates noncompliance, the EPA Method 9 data will be used to determine opacity compliance.

[40 CFR 60.11(e)(5)]

#### Monitoring Requirements

**C.59.** For the purposes of 40 CFR 60.13, all continuous monitoring systems (CMS) required under applicable subparts shall be subject to the provisions of 40 CFR 60.13 upon promulgation of performance specifications for continuous monitoring systems under Appendix B of 40 CFR 60 and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, Appendix F of 40 CFR 60, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.

[40 CFR 60.13(a)]

**C.60.** If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under 40 CFR 60.11(e)(5), he shall conduct a

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performance evaluation of the COMS as specified in Performance Specification 1, Appendix B, of 40 CFR 60 before the performance test required under 40 CFR 60.8 is conducted. Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under 40 CFR 60.8 or within 30 days thereafter in accordance with the applicable performance specification in Appendix B of 40 CFR 60. The owner or operator of an affected facility shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator under section 114 of the Act.

(1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under 60.8 and as described in 40 CFR 60.11(e)(5) shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in 40 CFR 60.13(c) at least 10 days before the performance test required under 60.8 is conducted.

[40 CFR 60.13(c)(1)]

**C.61.** (1) Owners and operators of all continuous emission monitoring systems (CEMS) installed in accordance with the provisions of this part shall check the zero (or low-level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span shall, as a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds two times the limits of the applicable performance specifications in Appendix B. The system must allow the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified, whenever specified. For continuous monitoring systems measuring opacity of emissions, the optical surfaces exposed to the effluent gases shall be cleaned prior to performing the zero and span drift adjustments except that for systems using automatic zero adjustments. The optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

(2) Unless otherwise approved by the Administrator, the following procedures shall be followed for continuous monitoring systems measuring opacity of emissions. Minimum procedures shall include a method for producing a simulated zero opacity condition and an upscale (span) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photo detector assembly.

[40 CFR 60.13(d)(1) and (2)]

**C.62.** Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), all continuous monitoring systems (CMS) shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(1) All continuous monitoring systems referenced by 40 CFR 60.13(c) for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(2) All continuous monitoring systems referenced by 40 CFR 60.13(c) for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

[40 CFR 60.13(e)(1) and (2)]

**C.63.** All continuous monitoring systems (CMS) or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of Appendix B of 40 CFR 60 shall be used.

[40 CFR 60.13(f)]

**C.64.** [reserved]

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**C.65.** Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to 6-minute averages and for continuous monitoring systems other than opacity to 1-hour averages for time periods as defined in 40 CFR 60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period. For continuous monitoring systems other than opacity, 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period. Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O<sub>2</sub> or ng/J of pollutant). All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in subparts. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subparts to specify the emission limit (e.g., rounded to the nearest 1 percent opacity).  
[40 CFR 60.13(h)]

#### **C.66. Determination of Process Variables.**

(a) **Required Equipment.** The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) **Accuracy of Equipment.** Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

#### **CEMS for Oxygen or Carbon Dioxide**

**C.67.** The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous emission monitoring system and record the output of the system for measuring the oxygen or carbon dioxide content of the flue gas at each location where carbon monoxide, sulfur dioxide, or nitrogen oxides emissions are monitored and shall comply with the test procedures and test methods specified in paragraphs (1) through (7).

(1) The span value of the oxygen (or carbon dioxide) monitor shall be 25 percent oxygen (or carbon dioxide).

(2) The monitor shall be installed, evaluated, and operated in accordance with 40 CFR 60.13.

(3) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under 40 CFR 60.8.

(4) The monitor shall conform to Performance Specification 3 in appendix B of 40 CFR 60 except for section 2.3 (relative accuracy requirement).

(5) The quality assurance procedures of appendix F of 40 CFR 60 except for section 5.1.1 (relative accuracy test audit) shall apply to the monitor.

(6) If carbon dioxide is selected for use in diluent corrections, the relationship between oxygen and carbon dioxide levels shall be established during the initial performance test according to the procedures and methods specified in paragraphs (i) through (iv). This relationship may be reestablished during performance compliance tests.

(i) The fuel factor equation in Method 3B shall be used to determine the relationship between oxygen and carbon dioxide at a sampling location. Method 3, 3A, or 3B, as applicable, shall be used to determine the oxygen concentration at the same location as the carbon dioxide monitor.

(ii) Samples shall be taken for at least 30 minutes in each hour.

(iii) Each sample shall represent a 1-hour average.

(iv) A minimum of three runs shall be performed.

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(7) The relationship between carbon dioxide and oxygen concentrations that is established in accordance with paragraph (6) shall be submitted to the EPA Administrator as part of the initial performance test report and, if applicable, as part of the annual test report if the relationship is reestablished during the annual performance test. [40 CFR 60.38b and 40 CFR 60.58b(b)]

#### **Recordkeeping and Reporting Requirements**

**C.68.** The owner or operator subject to the provisions of 40 CFR 60 shall furnish the Administrator written notification as follows:

(4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

[40 CFR 60.7(a)(4)]

**C.69.** The owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or, any periods during which a continuous monitoring system or monitoring device is inoperative.

[40 CFR 60.7(b)]

**C.70.** Each owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form [see 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each calendar half (or quarter, as appropriate). Written reports of excess emissions shall include the following information:

(1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

[40 CFR 60.7(c)(1), (2), (3), and (4)]

**C.71.** The summary report form shall contain the information and be in the format shown in Figure 1 (attached) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total

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operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.

(2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

[40 CFR 60.7(d)(1) and (2)]

{See attached Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance}

**C.72.** (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

- (i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;
- (ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in 40 CFR 60, Subpart A, and the applicable standard; and
- (iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in 40 CFR 60.7(e)(2).

(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in 40 CFR 60.7(e)(1) and (e)(2).

[40 CFR 60.7(e)(1)]

**C.73.** Any owner or operator subject to the provisions of 40 CFR 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and, all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least **five (5)** years following the date of such measurements, maintenance, reports, and records.

[40 CFR 60.7(f) and Rule 62-213.440(1)(b)2.b., F.A.C.]



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**C.74. Notification of Construction or Reconstruction.** The owner or operator of an affected facility with a capacity to combust greater than 250 tons per day shall submit a notification of construction, which includes the information specified in paragraphs (1) through (4).

- (1) Intent to construct.
  - (2) Planned initial startup date.
  - (3) The types of fuels that the owner or operator plans to combust in the affected facility.
  - (4) The municipal waste combustor unit capacity and supporting capacity calculations prepared in accordance with 40 CFR 60.58b(j).
- [40 CFR 60.39b and 40 CFR 60.59b(b)]

**C.75.** The owner or operator of an affected facility subject to the standards under 40 CFR. 60.53b, 60.54b, and 60.55b shall maintain records of the information specified in paragraphs (1) through (15), as applicable, for each affected facility for a period of at least 5 years.

- (1) The calendar date of each record.
- (2) The emission concentrations and parameters measured using continuous monitoring systems as specified under paragraphs (i) and (ii).
  - (i) The measurements specified in paragraphs (A) through (D) shall be recorded and be available for submittal to the Administrator or review onsite by an inspector.
    - (A) All 6-minute average opacity levels as specified under 40 CFR 60.58b(c).
    - (B) All 1-hour average sulfur dioxide emission concentrations as specified under 40 CFR 60.58b(e).
    - (C) All 1-hour average nitrogen oxides emission concentrations as specified under 40 CFR 60.58b(h).
    - (D) All 1-hour average carbon monoxide emission concentrations, municipal waste combustor unit load measurements, and particulate matter control device inlet temperatures as specified under 40 CFR 60.58b(i).
  - (ii) The average concentrations and percent reductions, as applicable, specified in paragraphs (2)(ii)(A) through (2)(ii)(D) shall be computed and recorded, and shall be available for submittal to the Administrator or review on-site by an inspector.
    - (A) All 24-hour daily geometric average sulfur dioxide emission concentrations and all 24-hour daily geometric average percent reductions in sulfur dioxide emissions as specified under 40 CFR 60.58b(e).
    - (B) All 24-hour daily arithmetic average nitrogen oxides emission concentrations as specified under 40 CFR 60.58b(h).
    - (C) All 4-hour block or 24-hour daily arithmetic average carbon monoxide emission concentrations, as applicable, as specified under 40 CFR 60.58b(i).
- (3) Identification of the calendar dates when any of the average emission concentrations, percent reductions, or operating parameters recorded under paragraphs (2)(ii)(A) through (2)(ii)(D), or the opacity levels recorded under paragraph (2)(i)(A) are above the applicable limits, with reasons for such exceedances and a description of corrective actions taken.
- (4) For affected facilities that apply activated carbon for mercury or dioxin/furan control, the records specified in paragraphs (i) through (v).
  - (i) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated as required under 40 CFR 60.58b(m)(1)(i) during the initial mercury performance test and all subsequent annual performance tests, with supporting calculations.
  - (ii) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated as required under 40 CFR 60.58b(m)(1)(ii) during the initial dioxin/furan performance test and all subsequent annual performance tests, with supporting calculations.
  - (iii) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated for each hour of operation as required under 40 CFR 60.58b(m)(3)(ii), with supporting calculations.
  - (iv) The total carbon usage for each calendar quarter estimated as specified by 40 CFR 60.58b(m)(3), with supporting calculations.
  - (v) Carbon injection system operating parameter data for the parameter(s) that are the primary indicator(s) of carbon feed rate (e.g., screw feeder speed).

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- (5) [reserved]
- (6) Identification of the calendar dates for which the minimum number of hours of any of the data specified in paragraphs (i) through (v) have not been obtained including reasons for not obtaining sufficient data and a description of corrective actions taken.
- (i) Sulfur dioxide emissions data;
  - (ii) Nitrogen oxides emissions data;
  - (iii) Carbon monoxide emissions data;
  - (iv) Municipal waste combustor unit load data; and
  - (v) Particulate matter control device temperature data.
- (7) Identification of each occurrence that sulfur dioxide emissions data, nitrogen oxides emissions data (large municipal waste combustors only), or operational data (i.e., carbon monoxide emissions, unit load, and particulate matter control device temperature) have been excluded from the calculation of average emission concentrations or parameters, and the reasons for excluding the data.
- (8) The results of daily drift tests and quarterly accuracy determinations for sulfur dioxide, nitrogen oxides, and carbon monoxide continuous emission monitoring systems, as required under appendix F of this part, procedure 1.
- (9) The test reports documenting the results of the initial performance test and all annual performance tests listed in paragraphs (i) and (ii) shall be recorded along with supporting calculations.
- (i) The results of the initial performance test and all annual performance tests conducted to determine compliance with the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission limits.
  - (ii) For the initial dioxin/furan performance test and all subsequent dioxin/furan performance tests recorded under paragraph (9)(i), the maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device temperature (for each particulate matter control device).
- (10) [reserved]
- (12) The records specified in paragraphs (i) through (iii).
- (i) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been provisionally certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program as required by 40 CFR 60.54b(a) including the dates of initial and renewal certifications and documentation of current certification.
  - (ii) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been fully certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program as required by 40 CFR 60.54b(b) including the dates of initial and renewal certifications and documentation of current certification.
  - (iii) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have completed the EPA municipal waste combustor operator training course or a State-approved equivalent course as required by 40 CFR 60.54b(d) including documentation of training completion.
- (13) Records showing the names of persons who have completed a review of the operating manual as required by 40 CFR 60.54b(f) including the date of the initial review and subsequent annual reviews.
- (14) For affected facilities that apply activated carbon for mercury or dioxin/furan control, identification of the calendar dates when the average carbon mass feed rates recorded under (4)(iii) were less than either of the hourly carbon feed rates estimated during performance tests for mercury or dioxin/furan emissions and recorded under paragraphs (4)(i) and (4)(ii), respectively, with reasons for such feed rates and a description of corrective actions taken.
- (15) For affected facilities that apply activated carbon for mercury or dioxin/furan control, identification of the calendar dates when the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate (e.g., screw feeder speed) recorded under paragraph (4)(v) are below the level(s) estimated during the performance tests as specified in 40 CFR 60.58b(m)(1)(i) and 40 CFR 60.58b(m)(1)(ii), with reasons for such occurrences and a description of corrective actions taken.
- [40 CFR 60.39b and 40 CFR 60.59b(d)]

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection C. Emissions Units 001 - 003

**C.76.** The owner or operator of an affected facility shall submit the information specified in paragraphs (1) through (6) in the initial performance test report.

(1) The initial performance test data as recorded under 40 CFR 60.59b(d)(2)(ii)(A) through (d)(2)(ii)(D) for the initial performance test for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, and particulate matter control device inlet temperature.

(2) The test report documenting the initial performance test recorded under 40 CFR 60.59b(d)(9) for particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emissions.

(3) The performance evaluation of the continuous emission monitoring system using the applicable performance specifications in appendix B of this part.

(4) The maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device inlet temperature(s) established during the initial dioxin/furan performance test as recorded under 40 CFR 60.59b(d)(9).

(5) For affected facilities that apply activated carbon injection for mercury control, the owner or operator shall submit the average carbon mass feed rate recorded under 40 CFR 60.59b(d)(4)(i).

(6) For those affected facilities that apply activated carbon injection for dioxin/furan control, the owner or operator shall submit the average carbon mass feed rate recorded under 40 CFR 60.59b(d)(4)(ii).

[40 CFR 60.39b and 40 CFR 60.59b(f)]

**C.77.** Following the first year of municipal combustor operation, the owner or operator of an affected facility shall submit an annual report including the information specified in paragraphs (1) through (4), as applicable, no later than February 1 of each year following the calendar year in which the data were collected (once the unit is subject to permitting requirements under Title V of the Act, the owner or operator of an affected facility must submit these reports semiannually).

(1) A summary of data collected for all pollutants and parameters regulated under this subpart, which includes the information specified in paragraphs (i) through (v).

(i) A list of the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission levels achieved during the performance tests recorded under 40 CFR 60.59b(d)(9).

(ii) A list of the highest emission level recorded for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, and particulate matter control device inlet temperature based on the data recorded under 40 CFR 60.59b(d)(2)(ii)(A) through (d)(2)(ii)(D).

(iii) List the highest opacity level measured, based on the data recorded under 40 CFR 60.59b(d)(2)(i)(A).

(iv) The total number of days that the minimum number of hours of data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature data were not obtained based on the data recorded under 40 CFR 60.59b(d)(6).

(v) The total number of hours that data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature were excluded from the calculation of average emission concentrations or parameters based on the data recorded under 40 CFR 60.59b(d)(7).

(2) The summary of data reported under paragraph (1) shall also provide the types of data specified in paragraphs (1)(i) through (1)(vi) for the calendar year preceding the year being reported, in order to provide the Administrator with a summary of the performance of the affected facility over a 2-year period.

(3) The summary of data including the information specified in paragraphs (1) and (2) shall highlight any emission or parameter levels that did not achieve the emission or parameter limits specified under this subpart.

(4) A notification of intent to begin the reduced dioxin/furan performance testing schedule specified in 40 CFR 60.58b(g)(5)(iii) during the following calendar year.

[40 CFR 60.39b and 40 CFR 60.59b(g)]

**C.78.** The owner or operator of an affected facility shall submit a semiannual report that includes the information specified in paragraphs (1) through (5) for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit specified under this subpart, according to the schedule specified under paragraph (6).

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection C. Emissions Units 001 - 003

- (1) The semiannual report shall include information recorded under 40 CFR 60.59b(d)(3) for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, particulate matter control device inlet temperature, and opacity.
  - (2) For each date recorded as required by 40 CFR 60.59b(d)(3) and reported as required by paragraph (1), the semiannual report shall include the sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, particulate matter control device inlet temperature, or opacity data, as applicable, recorded under 40 CFR 60.59b(d)(2)(ii)(A) through (d)(2)(ii)(D) and (d)(2)(i)(A), as applicable.
  - (3) If the test reports recorded under 40 CFR 56.59b(d)(9) document any particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission levels that were above the applicable pollutant limits, the semiannual report shall include a copy of the test report documenting the emission levels and the corrective actions taken.
  - (4) The semiannual report shall include the information recorded under 40 CFR 60.59b(d)(15) for the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate.
  - (5) For each operating date reported as required by paragraph (4), the semiannual report shall include the carbon feed rate data recorded under 40 CFR 60.59b(d)(4)(iii).
  - (6) Semiannual reports required by this condition shall be submitted according to the schedule specified in paragraphs (i) and (ii).
    - (i) If the data reported in accordance with paragraphs (1) through (5) were collected during the first calendar half, then the report shall be submitted by August 1 following the first calendar half.
    - (ii) If the data reported in accordance with paragraphs (1) through (5) were collected during the second calendar half, then the report shall be submitted by February 1 following the second calendar half.
- [40 CFR 60.39b and 40 CFR 60.59b(h)]

**C.79.** All reports specified under 40 CFR 60.59b(a), (b), (c), (f), (g), (h), and (i) shall be submitted as a paper copy, postmarked on or before the submittal dates specified under these paragraphs, and maintained onsite as a paper copy for a period of 5 years.  
[40 CFR 60.39b and 40 CFR 60.59b(j)]

**C.80.** All records specified under 40 CFR 60.59b(d) and (e) shall be maintained onsite in either paper copy or computer-readable format, unless an alternative format is approved by the Administrator.  
[40 CFR 60.39b and 40 CFR 60.59b(k)]

**C.81.** The Permittee shall maintain a central file containing all measurements, records, and other data that are required to be collected pursuant to the various specific conditions of this permit. This file shall include but not be limited to:

- (a) Data collected from monitoring instruments, including CEM/COM systems, steam or feed water flow measurements and PM control device temperatures;
- (b) Continuous steam flow or feed water flow records on 4-hour block average basis;
- (c) Records on daily solid waste charging rates and hours of operation derived from monthly truck scale data, refuse pit inventory, and operational records.
- (d) Amount of natural gas burned for each unit each month; the equivalent heat input from natural gas for each unit each month, calculated using the heat value for natural gas provided by the natural gas supplier; and the annual records of the natural gas capacity factor for each unit;
- (e) Results of all source tests or performance tests; and records of the maximum demonstrated unit load specified by this permit.
- (f) Amounts of activated carbon used for mercury control;
- (g) Calibration logs for all instruments subject to this permit;
- (h) Maintenance/repair logs for any work performed which is subject to this permit;
- (i) Records showing the names of facility personnel who have been provisionally or fully certified, and who have completed the MWC operator training course, and who have completed reviews of the operating manual, including the dates and documentation of certification/review.

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection C. Emissions Units 001 - 003

(j) Records demonstrating compliance with the percentage limitations on segregated solid wastes required by this permit.

[PSD-FL-121(B)]

**C.82.** If the owner or operator of an affected facility would prefer a different annual or semiannual date for submitting the periodic reports required by 40 CFR 60.59b(g), (h) and (i), then the dates may be changed by mutual agreement between the owner or operator and the Administrator according to the procedures specified in 40 CFR 60.19(c) of subpart A of this part.

[40 CFR 60.39b and 40 CFR 60.59b(l)]

**C.83.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

[Rule 62-210.700(6), F.A.C.]

**C.84.** Submit to the Department a written report of emissions in excess of emission limiting for each calendar quarter. The nature and cause of the excess emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the Source for a period of five years.

[Rule 62-213.440, F.A.C.]

#### **C.85. Test Reports.**

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection C. Emissions Units 001 - 003

15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

**C.86. Segregated Solid Waste Record Keeping:** The following records shall be made and kept to demonstrate compliance with the segregated non-MSW percentage limitations of specific conditions C.6.6. and C.6.7.:

Each segregated load of non-MSW materials, that is subject to the percentage weight limitations of specific conditions C.6.6. and C.6.7., which is received for processing shall be documented as to waste description and weight. The weight of all waste materials received for processing shall be measured using the facility truck scale and recorded.

Each day the total weight of segregated tires received shall be computed, and the daily total shall be added to the sum of the daily totals from the previous days in the current calendar month. At the end of each calendar month, the resultant monthly total weight of tires shall be divided by the total weight of all waste materials received in the same calendar month, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 3% limitation.

Each day the total weight of segregated non-MSW materials received that are subject to the 5% restriction shall be computed, and the daily total shall be added to the sum of the daily totals from the previous days in the current calendar month. At the end of each calendar month, the resultant monthly total weight of segregated non-MSW materials subject to the 5% restriction shall be divided by the total weight of all waste materials received in the same calendar month, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 5% limitation.

[PSD-FL-121(C)]

**C.87. Charging Rate Monitoring:** The average daily solid waste charging rate shall be determined on a monthly basis and recorded for each MWC unit. The daily charging rate shall be determined each month on an average daily basis for each MWC unit using the Facility's truck scale weight data, refuse pit inventory data and MWC operating data for the preceding calendar month. Monthly truck scale weight records of the weight of solid waste received and processed at the Facility, and refuse pit inventory data, shall be used to determine the amount of solid waste charged during the preceding calendar month on an average daily basis. The MWC load level measurements or other operating data shall be used to determine the number of operating hours per MWC unit for each day during the preceding calendar month.

[Rules 62-204.800(8) and 62-4.070(3), F.A.C.; 40 CFR 60.53(a); and, PSD-FL-121(B)]

#### **Miscellaneous Requirements.**

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection C. Emissions Units 001 - 003**

**C.88. Definitions.** For the purposes of Rules 62-204.800(7), (8), and (9), F.A.C., the definitions contained in the various provisions of 40 CFR Parts 60 and 61, adopted herein shall apply except that the term "Administrator" when used in 40 CFR Parts 60 and 61, shall mean the Secretary or the Secretary's designee except as noted in 40 CFR 61.157.

[40 CFR 60.2; and, Rules 62-204.800(7)(a), (8)(a)2. and (9)(a), F.A.C.]

**C.89. Circumvention.** No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

[40 CFR 60.12]

**C.90. Activated Carbon Injection.** The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit, or the dioxin/furan emission limits, or the dioxin/furan emission level specified in 40 CFR 60.58b(g)(5)(iii), shall follow the procedures specified in paragraphs (1) through (3).

(1) During the performance tests for dioxins/furans and mercury, as applicable, the owner or operator shall estimate an average carbon mass feed rate based on carbon injection system operating parameters such as the screw feeder speed, hopper volume, hopper refill frequency, or other parameters appropriate to the feed system being employed, as specified in paragraphs (i) and (ii).

(i) An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance test for mercury emissions and each subsequent performance test for mercury emissions.

(ii) An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance test for dioxin/furan emissions and each subsequent performance test for dioxin/furan emissions.

(2) During operation of the affected facility, the carbon injection system operating parameter(s) that are the primary indicator(s) of the carbon mass feed rate (e.g., screw feeder setting) shall be averaged over a block 8-hour period, and the 8-hour block average must equal or exceed the level(s) documented during the performance tests specified under paragraphs (1)(i) and (1)(ii).

(3) The owner or operator of an affected facility shall estimate the total carbon usage of the plant (kilograms or pounds) for each calendar quarter by two independent methods, according to the procedures in paragraphs (i) and (ii).

(i) The weight of carbon delivered to the plant.

(ii) Estimate the average carbon mass feed rate in kilograms per hour or pounds per hour for each hour of operation for each affected facility based on the parameters specified under paragraph (1), and sum the results for all affected facilities at the plant for the total number of hours of operation during the calendar quarter.

[40 CFR 60.38b and 40 CFR 60.58b(m), as amended on May 10, 2006; and 0570261-008-AC, Specific Condition 1.]

**C.91. General Applicability and Definitions.** The Standards of Performance for New Stationary Sources adopted by reference in Rule 62-204.800(7), F.A.C., the Emission Guidelines for Existing Sources adopted by reference in Rule 62-204.800(8), F.A.C., and the National Emissions Standards for Hazardous Air Pollutants adopted by reference in Rule 62-204.800(9), F.A.C., shall be controlling over other standards in the air pollution rules of the Department except that any emissions limiting standard contained in or determined pursuant to the air pollution rules of the Department which is more stringent than one contained in a Standard of Performance, an Emission Guideline, or a National Emission Standard, or which regulates emissions of pollutants or emissions units not regulated by an applicable Standard of Performance, Emission Guideline, or National Emission Standard, shall apply.

[Rules 62-204.800(7)(c), (8)(a)1., and (9)(c), F.A.C.]

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection C. Emissions Units 001 - 003

**C.92.** The combustor boilers shall have a metal name plate affixed in a conspicuous place on the shell showing manufacturer, model number, type waste, and rated capacity.

[PSD-FL-121(B)]

**C.93. Continuous Load Monitoring:** The owner or operator shall install, calibrate, maintain, and operate a steam flow meter or a feed water flow meter, measure steam (or feed water) flow in kilograms (or pounds) per hour on a continuous basis, and record the output of the monitor (in accordance with the ASME method described in 40 CFR 60.58b(i)(6)). Steam (or feed water) flow shall be calculated in 4-hour block arithmetic averages. Higher loads are allowed for testing purposes pursuant to 40 CFR 60.53b(b).

[Rule 62-204.800(8), F.A.C.; 40 CFR 60.31b, 60.38b, 60.51b, 60.53b(b), and 60.58b(i)(6); and, PSD-FL-121(B)]

**C.94. Acid Rain Part Application.** For any unit which was a solid waste incinerator, burning less than 20 percent fossil fuel as described in 40 CFR 72.6(b)(7), adopted and incorporated by reference at Rule 62-204.800, F.A.C. the designated representative of the source containing the unit shall submit a complete Acid Rain Part application governing such unit to the Department before the later of January 1, 1998, or March 1 of the year following the three calendar year period in which the incinerator consumed 20 percent or more fossil fuel on a British thermal unit (BTU) basis.

[Rule 62-214.320(1)(h), F.A.C.]

**C.95. Continuous Emission Monitoring System (CEMS).** CEMS with recorders shall be installed, calibrated, maintained and operated for each unit, subject to review by FDEP, for the following pollutants and operational parameters:

Carbon Monoxide

Nitrogen Oxides

Opacity

Sulfur Dioxide (monitors shall be located both upstream and downstream of the baghouse for percent removal efficiency calculations)

Oxygen

Total Steam Production (lbs/hr, pressure, and temperature) or Feed water Flow Rate (lbs/hr)

Flue Gas Temperature (at the fabric filter inlet)

Carbon Injection System Operating Parameters

Power Generation (in MW)

Unless required in 40 CFR 60, Subpart Cb, operational data monitoring systems (steam production, baghouse inlet temperature, carbon injection system parameters and power generation) shall be calibrated annually and operated in accordance with good engineering practice.

[PSD-FL-121(C)]

**C.96.** The monitoring devices shall meet the requirements of Rule 62-297.520, F.A.C., 40 CFR 60.45 and 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60.7(a)(5). Quality assurance procedures must conform to all applicable sections of 40 CFR 60, Appendix F. Data on CEM/COM equipment specifications, manufacturer, type, calibration and maintenance needs, and its location after the economizer or in the air pollution control equipment outlet duct shall be provided to the Department's Southwest District office and the Hillsborough County Environmental Protection Commission for review at least 90 days prior to installation. Initial performance evaluations must be completed within 180 days after initial startup of each retrofitted unit.

[PSD-FL-121(C)]

### **EG 40 CFR 60, Subpart Cb Requirements**

**C.97. EG Requirements - General Applicability and Definitions.** These emissions units shall comply with all applicable requirements of 40 CFR 60, Emission Guidelines and Compliance Times which have been adopted by



### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection C. Emissions Units 001 - 003

reference in Rule 62-204.800(9), F.A.C., except that the term "Administrator," when used in any provision of 40 CFR 60 that is delegated to the Department by the U.S. Environmental Protection Agency, shall mean the Secretary or the Secretary's designee. [Rule 62-204.800(9)(a), F.A.C.]

C.98. EG Requirements - Subpart Cb. These emissions units shall comply with all applicable requirements of 40 CFR 60, Subpart Cb, Emissions Guidelines (EG) and Compliance Times for Large Municipal Waste Combustors, which have been adopted and incorporated by reference in Rule 62-204.800(9), F.A.C. These emissions units shall comply with **Appendix 40 CFR 60 Subpart Cb** included with this permit. [Rule 62-204.800(9)(b), F.A.C.]

#### NSPS 40 CFR 60, Subpart A & Eb Requirements

*{Permitting note(s): The EG 40 CFR 60, Subpart Cb, cross references conditions (applicable requirements) that are contained in the NSPS 40 CFR 60, Subparts A and Eb.}*

C.99. NSPS Requirements - Subpart Eb. Except as otherwise provided in this permit, these emissions units shall comply with all applicable provisions of 40 CFR 60, Subpart Eb, Large Municipal Waste Combustors, adopted and incorporated by reference in Rule 62-204.800(8)(b), F.A.C.; except that the Secretary is not the Administrator for purposes of the authorities cited at 40 CFR 60.50b(n). These emissions units shall comply with all applicable provisions of **Appendix 40 CFR 60 Subpart Eb** included with this permit. [Rule 62-204.800(8)(b)7, F.A.C.]

C.100. NSPS Requirements - Subpart A. This emissions unit shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:

40 CFR 60.7, Notification and Recordkeeping

40 CFR 60.8, Performance Tests

40 CFR 60.11, Compliance with Standards and Maintenance Requirements

40 CFR 60.12, Circumvention

40 CFR 60.13, Monitoring Requirements

40 CFR 60.19, General Notification and Reporting Requirements,

which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. This emissions unit shall comply with all applicable provisions of **Appendix 40 CFR 60 Subpart A** included with this permit. [Rule 62-204.800(8)(d), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection D. Emissions Unit 100

The specific conditions in this section apply to the following emissions units:

E.U. ID No.	Brief Description
100	Ash Building and Handling System <u>with Baghouse</u>
112	<u>Wet Scrubber for Ash Building</u>

Flyash and bottom ash is collected and conveyed to the ash handling building. The ash handling system is completely enclosed or covered to decrease the potential for fugitive emissions. The ash is quenched and wetted before being temporarily stored in the ash handling facility and loaded onto a truck. A baghouse and wet scrubber is/are located at the ash handling building as an added precaution for fugitive emissions.

{Permitting note(s): This emissions unit is regulated under NSPS - 40 CFR 60, Subpart Cb, Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors That Are Constructed on or Before September 20, 1994, adopted and incorporated by reference, subject to provisions, in Rule 62-204.800(8)(b), F.A.C.; Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD); and, Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT). Note: This project is subject to the requirements of 40 CFR 60, Subpart Cb. This permit may refer to the requirements of 40 CFR 60, Subpart Eb, where these requirements are referenced by Subpart Cb.}

Compliance Assurance Monitoring (CAM) Applicability

Specific Condition D.4. contains a particulate matter (PM) emission limit for this emissions unit. The Applicant has provided justification demonstrating that the uncontrolled potential to emit PM is less than 100 tons per year for the emissions unit. Therefore, CAM does not apply to the control device for this emissions unit.

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

D.1. Hours of Operation. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.; and, PSD-FL-121(B)]

Air Pollution Control Technologies and Measures

D.1.0. Wet Scrubber Controls. The ash handling building was expanded during the MWC Unit 4 project. The building exhaust had been controlled by a baghouse installed in accordance with Permit No. PSD-FL-112B issued on October 14, 1987. In conjunction with the ash building expansion, the permittee installed a wet dust collection system in addition to the existing baghouse to control the ventilation exhaust from the ash handling building. The wet scrubber shall be a "Whirl/Wet Wet Dust Collector Size 70, Model H" (or equivalent) designed for the following specifications:

- a. 7,000 actual cubic feet per minute;
- b. Approximately 40% control for submicron particles;
- c. 80% control for particles > 1.0 micron;
- d. 95% control for particles > 2.0 micron;
- e. 97% control for particles > 3.0 micron;
- f. 98% control for particles > 5.0 micron; and
- g. 99% control for particles > 10.0 micron.

A Dwyer magnehelic pressure gauge/switch (or equivalent) shall be operated to measure the differential pressure across the unit control and control the water level to maintain a differential pressure of 8.0 ± 0.5 inches of water column. In addition, an alarm system shall be operated to warn of high water levels and low water levels.

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection D. Emissions Unit 100

[Application, Design and Rule 62-4.070(3), F.A.C.; and, Permit No. 0570261-010-AC/PSD-FL-369B, specific condition 3.C.3.]

#### **Emission Limitations and Standards**

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

{Permitting Note: Unless otherwise specified, the averaging times for Specific Conditions **D.2.**, **D.4.** and **D.5.** are based on the specified averaging time of the applicable test method.}

#### **Fugitive Ash Emissions**

##### **D.2. Fugitive Ash Emissions**

(a) On and after the date on which the initial performance test is completed or is required to be completed under 40 CFR 60.8 of Subpart A, no owner or operator of an affected facility shall cause to be discharged to 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 observations as specified in 40 CFR 60.58b(k), except as provided in paragraphs (b) and (c). See specific condition **D.7.**

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

(c) The provisions of paragraph (a) do not apply during maintenance and repair of ash conveying systems. [40 CFR 60.36b and 40 CFR 60.55b]

**D.3.** The potential for dust generation by ash handling activities will be mitigated by quenching the ash prior to loading in ash transport trucks. The ash handling facilities shall be enclosed. Unprocessed refuse storage areas which must be open for operational purposes (e.g., tipping floor of the refuse bunker while trucks are entering and leaving) will be under negative air pressure. Residue from the grates, grate siftings, and ash from the combustor/boiler and fabric filter hoppers during normal operations shall be discharged into the ash quenching system, or otherwise handled in a manner to minimize visible dust. The ash/residue in the ash handling building shall remain sufficiently moist to prevent dust during storage and handling operations.

[PSD-FL-121(B)]

**D.4. Baghouse.** PM emissions from the ash handling facility baghouse shall not exceed 1.63 pounds per hour.

[PSD-FL-121(B)]

**D.5. Baghouse.** Visible emissions from the ash handling facility baghouse shall not exceed 5 percent opacity.

[PSD-FL-121(B)]

**D.5.0. Emissions Limits.** The following standards apply to each emissions point of this unit:

a. Visible emissions are limited to 5% opacity from each of the above listed emissions points controlled by a wet scrubber.

b. Fugitive emissions are limited to 10% opacity from any emissions point not controlled by a wet scrubber.

c. Emissions of particulate matter (PM) from the wet scrubber shall not exceed 0.066 lb/hour as determined by EPA Method 5. No initial or subsequent PM stack tests are required as long compliance is demonstrated with the opacity standard and the control device is properly maintained. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, special

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection D. Emissions Unit 100

compliance tests may be required pursuant to Rule 62-297.310(7)(b), F.A.C.

{Permitting Note: The 5% opacity limitation is consistent with the design specifications and provides reasonable assurance that annual emissions of PM/PM<sub>10</sub> for Emissions Unit ID Nos. 108, 110 & 112 combined will be less than 0.40 TPY.}

[Rules 62-4.070(3), F.A.C.; and, Permit No. 0570261-010-AC/PSD-FL-369B.]

#### **Monitoring Requirements**

D.5.1. Wet Scrubber O&M Plan. For the wet scrubber, the permittee shall prepare an operation and maintenance (O&M) plan to address proper operation, parametric monitoring, and a schedule for conducting periodic inspections and preventive maintenance. Wet scrubber inspections and maintenance activities shall be recorded in a written log. [Rule 62-4.070(3), F.A.C.; and, Permit No. 0570261-010-AC/PSD-FL-369B.]

D.5.2. Wet Scrubber Monitoring. The wet scrubber shall be operated in accordance with the manufacturer's recommendations for the given operating conditions. The permittee shall take corrective actions as necessary when the water level alarm activates. [Rule 62-4.070(3), F.A.C.; and, Permit No. 0570261-010-AC/PSD-FL-369B.]

#### **Excess Emissions**

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS, NESHAP, or Acid Rain program provision.}

D.6. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.  
[40 CFR 60.11(d)]

D.7. Excess emissions from these emissions units resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.  
[Rule 62-210.700(1), F.A.C.]

D.8. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.  
[Rule 62-210.700(4), F.A.C.]

#### **Test Methods and Procedures**

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

#### **Fugitive Ash**

D.9. The procedures specified in paragraphs (1) through (4) shall be used for determining compliance with the fugitive ash emission limit under 40 CFR 60.55b.

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection D. Emissions Unit 100

(1) The EPA Reference Method 22 shall be used for determining compliance with the fugitive ash emission limit under 40 CFR 60.55b. The minimum observation time shall be a series of three 1-hour observations. The observation period shall include times when the facility is transferring ash from the municipal waste combustor unit to the area where ash is stored or loaded into containers or trucks.

(2) The average duration of visible emissions per hour shall be calculated from the three 1-hour observations. The average shall be used to determine compliance with 40 CFR 60.55b.

(3) The owner or operator of an affected facility shall conduct an initial performance test for fugitive ash emissions as required under 40 CFR 60.8.

(4) Following the date that the initial performance test for fugitive ash emissions is completed or is required to be completed under Sec. 60.8 for an affected facility, the owner or operator shall conduct a performance test for fugitive ash emissions on an annual basis (no more than 12 calendar months following the previous performance test).

[40 CFR 60.38b and 40 CFR 60.58b(k)]

**D.10.** Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

[40 CFR 60.8(c)]

**D.11. Particulate Matter.** The test methods for particulate emissions shall be EPA Method 5 incorporated by reference in Chapter 62-297, F.A.C. **The permittee has elected to accept an alternate standard of five (5) percent opacity to waive the particulate matter compliance test requirement.** See specific condition **D.5.** [Rules 62-213.440 and 62-297.620(4), F.A.C.]

**D.12. Visible Emissions.** EPA Method 9 shall be used to determine opacity compliance pursuant to Chapter 62-297, F.A.C.

[Rule 62-297.401, F.A.C.]

**D.13.** In the case of an emissions unit which has the potential to emit less than 100 tons per year of particulate matter and is equipped with a baghouse, the Secretary or the appropriate Director of District Management may waive any particulate matter compliance test requirements for such emissions unit specified in any otherwise applicable rule, and specify an alternative standard of 5% opacity. The waiver of compliance test requirements for a particulate emissions unit equipped with a baghouse, and the substitution of the visible emissions standard, shall be specified in the permit issued to the emissions unit. If the Department has reason to believe that the particulate weight emission standard applicable to such an emissions unit is not being met, it shall require that compliance be demonstrated by the test method specified in the applicable rule.

[Rule 62-297.620(4), F.A.C.]

**D.14. Operating Rate During Testing.** Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

[Rules 62-297.310(2) & (2)(b), F.A.C.]

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## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection D. Emissions Unit 100

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#### **D.15. Applicable Test Procedures.**

##### **(a) Required Sampling Time.**

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
  - a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
  - b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
  - c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

[Rule 62-297.310(4), F.A.C.]

**D.16. Frequency of Compliance Tests.** The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

##### **(a) General Compliance Testing.**

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
  - a. Did not operate; or
4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
  - a. Visible emissions, if there is an applicable standard;
  - b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
  - c. Each NESHAP pollutant, if there is an applicable emission standard.
9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

**(b) Special Compliance Tests.** When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection D. Emissions Unit 100

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; and, SIP approved]

**D.17.** Compliance with standards in 40 CFR 60, other than opacity standards, shall be determined by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard.

[40 CFR 60.11(a)]

#### Monitoring of Operations

**D.18.** Determination of Process Variables.

(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

#### Recordkeeping and Reporting Requirements

**D.19.** The owner or operator subject to the provisions of 40 CFR 60 shall furnish the Administrator written notification as follows:

(4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

[40 CFR 60.7(a)(4)]

**D.20.** The owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or, any periods during which a continuous monitoring system or monitoring device is inoperative.

[40 CFR 60.7(b)]

**D.21.** (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection D. Emissions Unit 100

- (i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;
- (ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in 40 CFR 60, Subpart A, and the applicable standard; and
- (iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in 40 CFR 60.7(e)(2).

- (2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.
- (3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in 40 CFR 60.7(e)(1) and (e)(2).  
[40 CFR 60.7(e)(1)]

{See attached Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance}

**D.22.** Any owner or operator subject to the provisions of 40 CFR 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and, all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least **5 (five)** years following the date of such measurements, maintenance, reports, and records.  
[40 CFR 60.7(f); and, Rule 62-213.440(1)(b)2.b., F.A.C.]

#### **D.23. Test Reports.**

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.
- (b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
  1. The type, location, and designation of the emissions unit tested.
  2. The facility at which the emissions unit is located.
  3. The owner or operator of the emissions unit.



### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection D. Emissions Unit 100

4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

**D.24. Malfunction Reporting.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

[Rule 62-210.700(6), F.A.C.]

#### **Miscellaneous Requirements**

**D.25. Definitions.** For the purposes of Rules 62-204.800(7), (8), and (9), F.A.C., the definitions contained in the various provisions of 40 CFR Parts 60 and 61, adopted herein shall apply except that the term "Administrator" when used in 40 CFR Parts 60 and 61, shall mean the Secretary or the Secretary's designee except as noted in 40 CFR 61.157.

[40 CFR 60.2; and, Rules 62-204.800(7)(a), (8)(a)2., and, (9)(a), F.A.C.]

**D.26. Circumvention.** No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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#### Subsection D. Emissions Unit 100

gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.  
[40 CFR 60.12]

**D.27. General Applicability and Definitions.** The Standards of Performance for New Stationary Sources adopted by reference in Rule 62-204.800(7), F.A.C., the Emission Guidelines for Existing Sources adopted by reference in Rule 62-204.800(8), F.A.C., and the National Emissions Standards for Hazardous Air Pollutants adopted by reference in Rule 62-204.800(9), F.A.C., shall be controlling over other standards in the air pollution rules of the Department except that any emissions limiting standard contained in or determined pursuant to the air pollution rules of the Department which is more stringent than one contained in a Standard of Performance, an Emission Guideline, or a National Emission Standard, or which regulates emissions of pollutants or emissions units not regulated by an applicable Standard of Performance, Emission Guideline, or National Emission Standard, shall apply.

[Rules 62-204.800(7)(c), (8)(a)1., and (9)(c), F.A.C.]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection E. Emissions Units 101 & 106**

The specific conditions in this section apply to the following emissions units:

<b>E.U. ID No.</b>	<b>Brief Description</b>
101	Lime Storage Silo
106	Dolomitic Lime Storage Silo

This subsection addresses lime storage silos for MWC Units 1, 2 and 3. Lime used in the spray dryer absorbers for each municipal waste combustor is stored in silos. Emissions from each silo are controlled by baghouse filters.

{Permitting note(s): Emissions unit -101 is regulated under Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD); and, Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT). Emissions unit -104 is regulated under Rule 62-296.320(4)(b), F.A.C., General Visible Emissions Standard.}

Compliance Assurance Monitoring (CAM) Applicability

Specific Condition **E.2.** contains particulate matter (PM) emission limits for these emission units. The Applicant has provided justification demonstrating that the uncontrolled potential to emit PM is less than 100 tons per year for each of the emissions units. Therefore, CAM does not apply to the control devices for these emissions units.

The following specific conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

**E.1. Hours of Operation.** This emissions unit is allowed to operate 4,380 hours/year. [Applicant request dated May 5, 2006; and Rule 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

{Permitting Note: Unless otherwise specified, the averaging times for Specific Conditions **E.2.** and **E.3.** are based on the specified averaging time of the applicable test method.}

**E.2. Particulate Matter.** Particulate matter emissions shall not exceed:  
Emissions unit -101: 0.015 grains per dry standard cubic foot, front-half catch.  
Emissions unit -106: 6.32 pounds per hour and 0.39 tons per year.  
[PSD-FL-121(B) and 0570261-004-AC]

**E.3. Visible Emissions.**  
Emissions unit -101: Visible emissions shall not exceed five (5) percent opacity.  
Emissions unit -106: Visible emissions shall not be equal to or greater than 20 percent opacity.  
[PSD-FL-121(B); 0570261-004-AC; and, Rule 62-296.320(4)(b)1., F.A.C.]

Excess Emissions

**E.4.** Excess emissions from these emissions units resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.  
[Rule 62-210.700(1), F.A.C.]

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection E. Emissions Units 101 & 106

**E.5.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.]

#### **Test Methods and Procedures**

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

**E.6. Particulate Matter.** The test methods for particulate emissions shall be EPA Method 5 incorporated by reference in Chapter 62-297, F.A.C. **The permittee has elected to accept an alternate standard of five (5) percent opacity to waive the particulate matter compliance test requirement.** See specific condition **E.3.** [Rules 62-213.440 and 62-297.620(4), F.A.C.]

**E.7. Visible Emissions.** EPA Method 9 shall be used to determine opacity compliance pursuant to Chapter 62-297, F.A.C.

[Rule 62-297.401, F.A.C.]

**E.8.** In the case of an emissions unit which has the potential to emit less than 100 tons per year of particulate matter and is equipped with a baghouse, the Secretary or the appropriate Director of District Management may waive any particulate matter compliance test requirements for such emissions unit specified in any otherwise applicable rule, and specify an alternative standard of 5% opacity. The waiver of compliance test requirements for a particulate emissions unit equipped with a baghouse, and the substitution of the visible emissions standard, shall be specified in the permit issued to the emissions unit.

If the Department has reason to believe that the particulate weight emission standard applicable to such an emissions unit is not being met, it shall require that compliance be demonstrated by the test method specified in the applicable rule.

[Rule 62-297.620(4), F.A.C.]

**E.9. Operating Rate During Testing.** Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case,

subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

[Rules 62-297.310(2) & (2)(b), F.A.C.]

#### **E.10. Applicable Test Procedures.**

##### **(a) Required Sampling Time.**

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.

2. **Opacity Compliance Tests.** When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection E. Emissions Units 101 & 106

- a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
- b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
- c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

[Rule 62-297.310(4), F.A.C.]

**E.11. Frequency of Compliance Tests.** The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

**(a) General Compliance Testing.**

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

a. Did not operate;

4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

a. Visible emissions, if there is an applicable standard;

b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and

c. Each NESHAP pollutant, if there is an applicable emission standard.

9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

**(b) Special Compliance Tests.** When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

**(c) Waiver of Compliance Test Requirements.** If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; and SIP approved]

### **Monitoring of Operations**

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection E. Emissions Units 101 & 106

#### **E.12. Determination of Process Variables.**

(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

#### **Recordkeeping and Reporting Requirements**

**E.13.** Any measurements, maintenance, reports, and records shall be retained for at least **5 (five)** years following the date of such measurements, maintenance, reports, and records.

[Rule 62-213.440(1)(b)2.b., F.A.C.]

#### **E.14. Test Reports.**

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

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#### Subsection E. Emissions Units 101 & 106

17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.

18. All measured and calculated data required to be determined by each applicable test procedure for each run.

19. The detailed calculations for one run that relate the collected data to the calculated emission rate.

20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.

21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

**Subsection F. Emissions Unit 102**

**The specific conditions in this section apply to the following emissions units:**

<b>E.U. ID No.</b>	<b>Brief Description</b>
102	Activated Carbon Storage Silo

Activated carbon is used in the carbon injection system for MWC Units 1, 2 and 3 and is stored in a silo. The activated carbon is utilized for the control of mercury and dioxin/furans. Emissions from the silo are controlled by a baghouse.

{Permitting note(s): This emissions unit is regulated under Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD); and, Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT)}

Compliance Assurance Monitoring (CAM) Applicability

Specific Condition **F.2.** contains a particulate matter (PM) emission limit for this emissions unit. The Applicant has provided justification demonstrating that the uncontrolled potential to emit PM is less than 100 tons per year for the emissions unit. Therefore, CAM does not apply to the control device for this emissions unit.

**The following specific conditions apply to the emissions unit(s) listed above:**

Essential Potential to Emit (PTE) Parameters

**F.1. Hours of Operation.** This emissions unit is allowed to operate 4,380 hours/year. [Applicant request dated May 5, 2006; and Rule 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

{Permitting Note: Unless otherwise specified, the averaging times for Specific Conditions **F.2.** and **F.3.** are based on the specified averaging time of the applicable test method.}

**F.2. Particulate Matter.** Particulate matter emissions shall not exceed 0.015 grains per dry standard cubic foot, front-half catch. [PSD-FL-121(B)]

**F.3. Visible Emissions.** Visible emissions shall not exceed five (5) percent opacity. [PSD-FL-121(B)]

Excess Emissions

**F.4. Excess emissions** from these emissions units resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

**F.5. Excess emissions** which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.



### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection F. Emissions Unit 102

[Rule 62-210.700(4), F.A.C.]

#### Test Methods and Procedures

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

**F.6. Particulate Matter.** The test methods for particulate emissions shall be EPA Method 5 incorporated by reference in Chapter 62-297, F.A.C. **The permittee has elected to accept an alternate standard of five (5) percent opacity to waive the particulate matter compliance test requirement.** See specific condition F.3. [Rules 62-213.440 and 62-297.620(4), F.A.C.]

**F.7. Visible Emissions.** EPA Method 9 shall be used to determine opacity compliance pursuant to Chapter 62-297, F.A.C. [Rule 62-297.401, F.A.C.]

**F.8.** In the case of an emissions unit which has the potential to emit less than 100 tons per year of particulate matter and is equipped with a baghouse, the Secretary or the appropriate Director of District Management may waive any particulate matter compliance test requirements for such emissions unit specified in any otherwise applicable rule, and specify an alternative standard of 5% opacity. The waiver of compliance test requirements for a particulate emissions unit equipped with a baghouse, and the substitution of the visible emissions standard, shall be specified in the permit issued to the emissions unit. If the Department has reason to believe that the particulate weight emission standard applicable to such an emissions unit is not being met, it shall require that compliance be demonstrated by the test method specified in the applicable rule. [Rule 62-297.620(4), F.A.C.]

**F.9. Operating Rate During Testing.** Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rules 62-297.310(2) & (2)(b), F.A.C.]

#### **F.10. Applicable Test Procedures.**

##### **(a) Required Sampling Time.**

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.

2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection F. Emissions Unit 102

- b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
- c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

[Rule 62-297.310(4), F.A.C.]

**F.11. Frequency of Compliance Tests.** The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

**(a) General Compliance Testing.**

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

a. Did not operate;

4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

a. Visible emissions, if there is an applicable standard;

b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and

c. Each NESHAP pollutant, if there is an applicable emission standard.

9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

**(b) Special Compliance Tests.** When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

**(c) Waiver of Compliance Test Requirements.** If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; and SIP approved]

### **Monitoring of Operations**

**F.12. Determination of Process Variables.**

## SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

### Subsection F. Emissions Unit 102

(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

#### Recordkeeping and Reporting Requirements

**F.13.** Any measurements, maintenance, reports, and records shall be retained for at least **5 (five)** years following the date of such measurements, maintenance, reports, and records.

[Rule 62-213.440(1)(b)2.b., F.A.C.]

#### **F.14.** Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.

**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

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**Subsection F. Emissions Unit 102**

18. All measured and calculated data required to be determined by each applicable test procedure for each run.

19. The detailed calculations for one run that relate the collected data to the calculated emission rate.

20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.

21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection G. Emissions Units 107

The specific conditions in this section apply to the following emissions units:

<u>E.U. ID No.</u>	<u>Brief Description</u>
<u>107</u>	<u>288 MMBtu/hr (nominal) Municipal Waste Combustor &amp; Auxiliary Burners - Unit 4</u>

Emissions Unit ID No. 107, referred to as "Unit 4," consists of a nominal design rated capacity 600 TPD mass-burn municipal waste combustor (MWC) manufactured by Riley Power Inc. Unit 4 has a mass burn waterwall furnace, two nominal 50 MMBtu/hr natural gas-fired auxiliary burners and a nominal 17 megawatt (MW) steam turbine-electrical generator. The combustion system technology is similar to Units 1, 2, and 3 where combustion takes place on a reverse-reciprocating grate system. Waste is combusted at furnace temperatures exceeding 1,800 degrees Fahrenheit, and reduced to an inert ash residue. The auxiliary burners are used to fire the MSW combustors during startup, shutdown, and at other times when necessary and consistent with good combustion practices.

The nominal steam production rate is 170,790 pounds of steam per hour and the maximum steam production limit is 200,000 lb steam/hr (4-hour block average) based on MSW having a heating value of 5,000 Btu/lb. The nominal heat input is approximately 288 MMBtu/hour. Short term capacity is restricted by limiting steam production, which effectively limits heat input. The net design steam enthalpy for useful work is 1,158 Btu/lb.

Air pollution control equipment and measures consist of: efficient combustion on the grate and furnace; the strategic combustion air management system (Covanta low NOx (LN<sup>TM</sup>) system) or flue gas recirculation (FGR); a spray dryer/absorber in conjunction with a fabric filter (SD/FF) for control of acid gases, particulate matter, and most metals; activated carbon injection (ACI) system to enhance mercury (Hg) removal; and, selective non-catalytic reduction (SNCR) by ammonia or urea injection for nitrogen oxides (NOx) control. Odor is controlled by drawing combustion air from the refuse tipping floor area.

All four units, Units 1, 2, 3 (see Subsection III.C.) and 4, exhaust to a common stack consisting of four separate flues. The stack parameters for Unit 4's flue are: height, 220 feet; diameter, 5.5 feet; exit temperature, 270 degrees F; and, actual stack gas flow rate, 133,606 acfm.

Unit 4 commenced commercial operation on September 5, 2009.

*Permitting note(s): This emissions unit is regulated under 40 CFR 60, Subpart Eb, Standards of Performance for Large Municipal Waste Combustors adopted and incorporated by reference in Rule 62-204.800(8)(b)7, F.A.C. Unit 4 is considered a 'new' large municipal waste combustor (large MWC) unit regulated under 40 CFR 60, Subpart Eb. This MWC unit commenced construction on December 26, 2006 (the cut-off date for lower emission standards/limitations under 40 CFR 60, Subpart Eb is a "commenced construction date after December 19, 2005"); Rule 62-296.416, F.A.C., Waste-to-Energy Facilities; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD) [PSD-FL-369, as amended]; Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT); and, Florida Electrical Power Plant Site Certifications [PA82-19A].*

**Equipment and Operational Limitations**

**G.1. Nameplate.** The combustor (boiler) shall have a metal name plate affixed in a conspicuous place on the shell showing the manufacturer, model number, type of waste, and rated capacity. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, Permit No. 0570261-007-AC/PSD-FL-369.]

**G.2. Combustion Practices.** To ensure that the facility's fuel does not adversely affect the facility's combustion process or emissions, the facility operator shall:

- a.** comply with good combustion operating practices in accordance with 40 CFR 60.53b;
- b.** install, operate and maintain continuous emissions monitors (CEMS) for oxygen, carbon monoxide, sulfur dioxide, oxides of nitrogen and temperature in accordance with 40 CFR 60.58b; and
- c.** record and maintain the CEMS data in accordance with 40 CFR 60.59b.

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection G. Emissions Units 107

These steps shall be used to ensure and verify continuous compliance with the emissions limitations in this permit.

Natural gas may be used as fuel during warm-up, startup, shutdown, and malfunction periods, and at other times when necessary and consistent with good combustion practices.

[Rule 62-4.070(1), and (3), F.A.C.; and, Permit No. 0570261-007-AC/PSD-FL-369.]

#### **Essential Potential to Emit (PTE) Parameters**

**G.3. Hours of Operation.** This emissions unit may operate continuously, i.e., 8,760 hours/year. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; Permit No. 0570261-007-AC/PSD-FL-369.]

**G.4. Permitted Capacity.** The maximum steam production rate shall not exceed 200,000 pounds steam per hour (on a 4-hour block arithmetic average).

{Permitting Note: The nominal capacity of Unit 4 is 600 tons per day and has been determined to be greater than 250 tons per day, thus classifying the unit as a "large MWC unit" under NSPS - 40 CFR 60, Subpart Eb.}

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; 40 CFR 60, Subpart Eb; Design; and, Permit Nos. 0570261-007-AC/PSD-FL-369 & 0570261-009-AC/PSD-FL-369A.]

**G.5. Maximum Demonstrated Municipal Waste Combustor Unit Load.** Unit load means the steam load of the municipal waste combustor measured as specified in 40 CFR 60.58b(I)(6). Each unit shall not operate at a load level greater than 110 percent of the unit's "maximum demonstrated unit load." Maximum demonstrated municipal waste combustor unit load means the highest 4-hour arithmetic average municipal waste combustor unit load achieved during four consecutive hours during the most recent dioxin/furan performance test demonstrating compliance with the applicable limit for municipal waste combustor organics. Higher loads are allowed for testing purposes as specified in 40 CFR 60.53b(b). [40 CFR 60.34b(b), 60.51b, 60.53b(b), and 60.58b(I)(6)]

**G.6. Continuous Steam Flow Monitoring.** Municipal waste combustor unit load means the steam load of the municipal waste combustor unit measured as specified in §60.58b(i)(6). The owner or operator shall install, calibrate, maintain, and operate a steam flow meter, measure steam flow in kilograms (or pounds) per hour on a continuous basis, and record the output of the monitor (in accordance with the ASME method described in 40 CFR 60.58b(i)(6)). Steam flow shall be calculated in 4-hour block arithmetic averages. Higher unit loads are allowed for testing purposes pursuant to 40 CFR 60.53b(b). [Rules 62-204.800(8), 62-4.070(1) and (3), F.A.C., and 40 CFR 60.53(a) and 60.58b(i)]

**G.7. MWCs - Methods of Operation - Fuels.**

Authorized Fuels: The primary fuel for the facility is municipal solid waste (MSW), including the items and materials that fit within the definition of MSW contained in either 40 CFR 60.51b or Section 403.706(5), Florida Statutes (1995). Subject to the limitations contained in this permit, the authorized fuels for the facility also include the other solid wastes that are not MSW which are described below:

a. Subject to the conditions and limitations contained in this permit, the following other solid waste may be used as fuel at the facility:

i. Confidential, proprietary or special documents (including but not limited to business records, lottery tickets, event tickets, coupons and microfilm);

ii. Contraband which is being destroyed at the request of appropriately authorized local, state or federal governmental agencies, provided that such material is not an explosive, a propellant, a hazardous waste, or otherwise prohibited at the facility. For the purposes of this section, contraband includes but is not limited to drugs, narcotics, fruits, vegetables, plants, counterfeit money, and counterfeit consumer goods;

iii. Wood pallets, clean wood, and land clearing debris;

iv. Packaging materials and containers;

v. Clothing, natural and synthetic fibers, fabric remnants, and similar debris, including but not limited to aprons and gloves; or

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection G. Emissions Units 107

- vi. Rugs, carpets, and floor coverings, but not asbestos-containing materials or polyethylene or polyurethane vinyl floor coverings.
- b. Subject to the conditions and limitations contained in this permit, waste tires may be used as fuel at the facility. The total quantity of waste tires received as segregated loads and burned at the facility shall not exceed 3%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined on a calendar month basis.
- c. Subject to the conditions and limitations contained in this permit, the following other solid waste materials may be used as fuel at the facility (i.e. the following are authorized fuels that are non-MSW material). The total quantity of the following non-MSW material received as segregated loads and burned at the facility shall not exceed 5%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined on a calendar month basis.
  - i. Construction and demolition debris.
  - ii. Oil spill debris from aquatic, coastal, estuarine or river environments. Such items or materials include but are not limited to rags, wipes, and absorbents.
  - iii. Items suitable for human, plant or domesticated animal use, consumption or application where the item's shelf-life has expired or the generator wishes to remove the items from the market. Such items or materials include but are not limited to off-specification or expired consumer products, pharmaceuticals, medications, health and personal care products, cosmetics, foodstuffs, nutritional supplements, returned goods, and controlled substances.
  - iv. Consumer-packaged products intended for human or domesticated animal use or application but not consumption. Such items or materials include but are not limited to carpet cleaners, household or bathroom cleaners, polishes, waxes and detergents.
  - v. Waste materials that:
    - (a) are generated in the manufacture of items in categories (iii) or (iv), above and are functionally or commercially useless (expired, rejected or spent); or
    - (b) are not yet formed or packaged for commercial distribution. Such items or materials must be substantially similar to other items or materials routinely found in MSW.
  - vi. Waste materials that contain oil from:
    - (a) the routine cleanup of industrial or commercial establishments and machinery; or
    - (b) spills of virgin or used petroleum products. Such items or materials include but are not limited to rags, wipes, and absorbents.
  - vii. Used oil and used oil filters. Used oil containing a polychlorinated biphenyls (PCB) concentration equal or greater than 50 pound per minute (ppm) shall not be burned, pursuant to the limitations of 40 CFR 761.20(e). {Permitting note: Waste materials specifically authorized above do not require Department approval.}
  - viii. Waste materials generated by manufacturing, industrial or agricultural activities, provided that these items or materials are substantially similar to items or materials that are found routinely in MSW.

#### Prohibited Fuels:

- a. The facility shall not burn:
  - i. those materials that are prohibited by state or federal law;
  - ii. those materials that are prohibited by this permit;
  - iii. lead acid batteries;
  - iv. hazardous waste;
  - v. nuclear waste;
  - vi. radioactive waste;
  - vii. sewage sludge;
  - viii. explosives; and
  - ix. beryllium-containing waste, as defined in 40 CFR 61, Subpart C.
- b. Further, the facility shall not knowingly burn:
  - i. nickel-cadmium batteries pursuant to Section 403.7192 (3);
  - ii. mercury containing devices and lamps pursuant to Sections 403.7186(2), and (3);

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- iii. untreated biomedical waste from biomedical waste generators regulated pursuant to Chapter 64E-16, F.A.C., and from similar generators (or sources);
- iv. segregated loads of biological waste; and
- v. Chromated Copper Arsenate (CCA) treated wood.

[Rule 62-4.070(1), and (3), F.A.C.; and, Permit No. 0570261-007-AC/PSD-FL-369.]

Segregated Loads: The fuel may be received either as a mixture or as a single-item stream (segregated load) of discarded materials. If the facility intends to use an authorized fuel that is segregated non-MSW material, the fuel shall be either:

- a. well mixed with MSW in the refuse pit; or
- b. alternately charged with MSW in the hopper.

[Rule 62-4.070(1), and (3), F.A.C.; and, Permit No. 0570261-007-AC/PSD-FL-369.]

**Air Pollution Control Technologies and Measures**

**G.8. Air Pollution Control Equipment.** The owner or operator shall operate and maintain the following air pollution control equipment consistent with the manufacturers' specifications.

NOx Controls: A strategic combustion air management system (Covanta low NOx (LN™) system) or flue gas recirculation system (FGR) shall be used to limit NOx formation. An ammonia or urea-based selective non-catalytic reduction (SNCR) system will be employed for the destruction of NOx.

MWC Acid Gas Control: A spray dryer (SD) with lime injection will be installed to absorb MWC acid gases.

MWC Organics and Mercury (Hg): An activated carbon injection (ACI) system shall be installed to adsorb MWC organics and Hg.

Particulate Matter (PM/PM<sub>10</sub>): A fabric filter (FF) baghouse, including absorption/adsorption reagent, shall be installed to remove particulate matter.

[BACT Determination, and Rules 62-4.070(1), and (3), F.A.C.; and, Permit Nos. 0570261-007-AC/PSD-FL-369 & 0570261-009-AC/PSD-FL-369A.]

**Emission Limitations and Standards**

{Permitting note: MWC Unit 4 was subject to a Best Available Control Technology (BACT) determination in 0570261-007-AC/PSD-FL-369 for nitrogen oxides (NOx), carbon monoxide (CO), MWC acid gases (SO<sub>2</sub>+HCl), SO<sub>2</sub> as an individual pollutant, MWC organics (dioxins/furans) and opacity.}

Unless otherwise specified, the averaging times for Specific Conditions G.9. - G.17. are based on the specified averaging time of the applicable test method.

**G.9. Emissions from Unit 4 shall not exceed the emissions standards and limits listed in the following table or in the specific conditions and using the test methods and procedures described.**

<b><u>Air Pollutant</u></b>	<b><u>Emission Standard/Limit</u></b>	<b><u>lb/hour</u></b>	<b><u>Basis</u></b>
<b><u>Nitrogen Oxides (NOx)</u></b>	<b><u>110 ppmvd, 24-hour block average; and</u></b>	<b><u>58.5</u></b>	<b><u>BACT</u></b>
	<b><u>90 ppmvd, 12-month rolling average</u></b>	<b><u>47.9</u></b>	<b><u>BACT</u></b>
<b><u>Carbon Monoxide (CO)</u></b>	<b><u>80 ppmvd, 30-day rolling average; and</u></b>	<b><u>25.9</u></b>	<b><u>BACT</u></b>
	<b><u>100 ppmvd, 4- hour block average</u></b>	<b><u>32.4</u></b>	<b><u>BACT/40 CFR Subpart Eb</u></b>
<b><u>Sulfur Dioxide (SO<sub>2</sub>)</u></b>	<b><u>26 ppmvd, 24-hour block average</u></b> <b><u>or 80% reduction<sup>2</sup></u></b>	<b><u>19.2</u></b>	<b><u>BACT/Eb</u></b>
<b><u>Hydrogen Chloride (HCl)<sup>3</sup></u></b>	<b><u>25 ppmvd or 95% reduction<sup>2</sup></u></b>	<b><u>25.4</u></b>	<b><u>BACT/Eb</u></b>
<b><u>Particulate Matter (PM/PM<sub>10</sub>)</u></b>	<b><u>12.0 mg/dscm</u></b>	<b><u>3.3</u></b>	<b><u>Avoid PSD</u></b>



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<u>Lead (Pb)</u>	<u>140 µg/dscm</u>	<u>NA</u>	<u>Subpart Eb</u>
<u>Mercury (Hg)</u>	<u>28 µg/dscm or 85% reduction<sup>2</sup></u>	<u>0.022</u>	<u>Avoid PSD/Eb</u>
<u>Cadmium (Cd)</u>	<u>10 µg/dscm</u>	<u>NA</u>	<u>Subpart Eb</u>
<u>Dioxins/Furans<sup>4</sup></u>	<u>13.0 ng/dscm</u>	<u>3.61 x 10<sup>-6</sup></u>	<u>BACT/Eb</u>
<u>Opacity</u>	<u>10%, 6-minute average</u>	<u>NA</u>	<u>BACT/Eb</u>
<u>Ammonia Slip</u>	<u>@ 195 MMBtu/hr: 10 ppmvd</u> <u>@ 260 MMBtu/hr: 15 ppmvd</u>	<u>NA</u>	<u>PM, Opacity</u>

Notes:

<sup>1</sup> All concentration values are corrected to 7% O<sub>2</sub>.

µg/dscm: Micrograms per dry standard cubic meter

mg/dscm: Milligrams per dry standard cubic meter

ng/dscm: Nanograms per dry standard cubic meter

ppmvd: Part per million dry volume

NA: not applicable

<sup>2</sup> Whichever standard is less stringent.

<sup>3</sup> HCl is not a BACT pollutant. However, it must be limited together with SO<sub>2</sub> because they both comprise MWC-Acid Gases which has its own PSD threshold.

<sup>4</sup> Dioxins/Furans: Total tetra through octa-chlorinated dibenzo-p-dioxins and dibenzofurans. [Permit No. 0570261-007-AC/PSD-FL-369.]

**G.10. Nitrogen Oxides (NO<sub>x</sub>).** Emissions of NO<sub>x</sub> in the stack exhaust gas as measured by the required CEMS shall exceed neither 110 ppmvd nor 58.5 lb/hr on a 24-hr daily arithmetic average and shall exceed neither 90 ppmvd nor 47.9 lb/hr on a 12-month rolling average, rolled monthly.

*{Permitting Note: The owner or operator may request a permit modification of the 90 ppmvd NO<sub>x</sub> standard if ammonia plume or slip issues arise and persist at the facility. The Department reserves the right to make a final determination on any such request.}*

[Permit No. 0570261-007-AC/PSD-FL-369.]

**G.11. Carbon Monoxide (CO).** Emissions of CO in the stack exhaust gas as measured by the required CEMS shall exceed neither 100 ppmvd on a 4-hr block average nor 32.4 lb/hr and shall exceed neither 80 ppmvd nor 25.9 lb/hr on a 30-operating day rolling average. [Permit No. 0570261-007-AC/PSD-FL-369.]

**G.12. Sulfur Dioxide (SO<sub>2</sub>).** Emissions of SO<sub>2</sub> as measured by the required CEMS shall exceed neither 26 ppmvd nor 19.2 lb/hr on a 24-hr daily geometric mean, or an emissions reduction of 80 percent shall be achieved. [Permit No. 0570261-007-AC/PSD-FL-369.]

**G.13. Hydrogen Chloride (HCl).** Emissions of HCl shall exceed neither 25 ppmvd nor 25.4 lb/hr or, an emissions reduction of 95 percent shall be achieved as demonstrated during the required stack test. [Permit No. 0570261-007-AC/PSD-FL-369.]

**G.14. Mercury (Hg).** Emissions of Hg shall not exceed 28 µg/dscm or an emissions reduction of 85 percent shall be achieved as demonstrated during the required annual stack test. During the first three years of operation, emissions of Hg shall not exceed 0.022 lb/hr as measured during quarterly stack tests to provide reasonable assurance that 12-month emissions are less than the applicable PSD threshold of 200 lb/yr. After the certification of the Hg-CEMS or the Hg-CASS as described in Specific Condition G.26., the owner or operator may demonstrate compliance with all Hg limits in this permit with data collected during an annual stack test or from the Hg-CEMS or the Hg-CASS.

*{Permitting Note: If the Hg-CEMS is certified prior to the end of the first three years of operation, the permittee may use the CEMS in lieu of the remaining quarterly tests.}*

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[Permit No. 0570261-013-AC/PSD-FL-369C, specific condition 3.B.19. and Rule 62-212.400(12) (Source Obligation, escape PSD BACT), F.A.C.]

**G.15. Dioxins/Furans.** Emissions of dioxins/furans shall exceed neither 13.0 ng/dscm nor  $3.61 \times 10^{-6}$  lb/hr. [Permit No. 0570261-007-AC/PSD-FL-369.]

**G.16. Particulate Matter (PM/PM<sub>10</sub>).** Emissions of PM shall exceed neither 12.0 mg/dscm nor 3.3 lb/hr. This will simultaneously demonstrate compliance with the PM<sub>10</sub> limits.

*{Permitting note: Compliance with this condition will also demonstrate that emissions are less than the 15 TPY PSD thresholds for PM<sub>10</sub> and MWC-Metals.}*

[Permit No. 0570261-007-AC/PSD-FL-369 and Rule 62-212.400(12) (Source Obligation, escape PSD), F.A.C.]

**G.17. Opacity.** Visible emissions shall not exceed 10% (percent) opacity on a 6-minute average as measured by the required continuous opacity monitoring system (COMS) and measured by an annual visible emissions (VE) test. [Permit No. 0570261-007-AC/PSD-FL-369.]

**G.18. Source Obligation.**

(a) Authorization to construct shall expire if construction is not commenced within 18 months after receipt of the permit, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. This provision does not apply to the time period between constructions of the approved phases of a phased construction project except that each phase must commence construction within 18 months of the commencement date established by the Department in the permit.

(b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

(c) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

[Permit No. 0570261-007-AC/PSD-FL-369, specific condition 2.7; and, Rule 62-212.400(12), F.A.C.]

#### **Excess Emissions**

Rule 62-210.700 (Excess Emissions), F.A.C., cannot vary any requirement of an EG, NSPS or NESHAP provision.

**G.19. Department Regulations.** The following conditions apply only to the emissions limits that were specified pursuant to BACT or to avoid PSD applicability.

a. Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24-hour period unless specifically authorized by the Department for longer duration. The Department authorizes three hours in any 24-hour period for this emissions unit. A malfunction means any unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner.

b. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.

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c. The permittee shall notify the Compliance Authority within one working day of discovering any emissions in excess of a CEMS standard subject to the specified averaging period. All such reasonably preventable emissions shall be included in any CEMS compliance determinations. All valid emissions data (including data collected during startup, shutdown and malfunction) shall be used to report emissions for the Annual Operating Report.

[Rule 62-210.700, F.A.C.; and, Permit No. 0570261-007-AC/PSD-FL-369.]

**G.20.** Regulations pursuant to 40 CFR 60, Subpart Eb. The following conditions apply only to the emissions limits that were specified pursuant to 40 CFR 60, Subpart Eb.

a. The opacity standards set forth in 40 CFR 60 shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard. [40 CFR 60.11(c)]

b. Startup, Shutdown and Malfunction. Except as provided by 40 CFR 60.56b, the standards under 40 CFR 60, Subpart Eb, as incorporated in Rule 62-204.800(8)(b), F.A.C., apply at all times except during periods of startup, shutdown, or malfunction. Duration of startup or shutdown periods are limited to 3 hours per occurrence, except as provided in 40 CFR 60.58b(a)(1)(iii). During periods of startup, shutdown, or malfunction, monitoring data shall be dismissed or excluded from compliance calculations, but shall be recorded and reported in accordance with the provisions of 40 CFR 60.59b(d)(7).

i. The startup period commences when the affected facility begins the continuous burning of municipal solid waste and does not include any warm-up period when the affected facility is combusting fossil fuel or other non-municipal solid waste fuel, and no municipal solid waste is being fed to the combustor.

ii. Continuous burning is the continuous, semi-continuous, or batch feeding of municipal solid waste for purposes of waste disposal, energy production, or providing heat to the combustion system in preparation for waste disposal or energy production. The use of municipal solid waste solely to provide thermal protection of the grate or hearth during the startup period when municipal solid waste is not being fed to the grate is not considered to be continuous burning.

[40 CFR 60.58b(a)]

c. Special Provisions for CO. For the purpose of compliance with the carbon monoxide emission limits in 40 CFR 60.53b(a), if a loss of boiler water level control (e.g., loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction, the duration of the malfunction period is limited to 15 hours per occurrence. [40 CFR 60.58b(a)(1)(iii)]

#### **Continuous Monitoring Requirements**

{Permitting note: Unit 4 is equipped with continuous emissions monitoring systems (CEMS) to measure and record NOx, CO, SO<sub>2</sub>, and Hg as well as instrumentation to monitor steam flow, flue gas flow rate, oxygen, temperature, and opacity.}

**G.21.** CEM Systems. The permittee shall install, calibrate, maintain, and operate continuous emission monitoring systems (CEMS) to measure and record the emissions of CO, NOx, Hg and SO<sub>2</sub> from Unit 4 in a manner sufficient to demonstrate continuous compliance with the CEMS emission standards of this subsection. All continuous monitoring systems other than the Hg CEMS shall be installed and functioning within the required performance specifications by the time of the initial performance tests. The Hg CEMS shall be installed and functioning within the required performance specifications by the end of the third year of operation as specified in Specific Condition G.26.

a. CO Monitor. The CO monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 4 or 4A and shall comply with all requirements of 40 CFR 60.58b. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F, and the Data Assessment Report of Section 7 shall be made each calendar quarter, and reported semiannually to the Compliance Authority. The required RATA tests shall be performed using EPA Method 10 in Appendix A of 40 CFR 60 and shall be based on a continuous sampling train. The CO monitor span values shall be set appropriately, considering the allowable methods of operation and corresponding emission standards.

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- b. NO<sub>x</sub> Monitor. The NO<sub>x</sub> monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 2 and shall comply with all requirements of 40 CFR 60.58b. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F, and the Data Assessment Report of Section 7 shall be made each calendar quarter, and reported semiannually to the Compliance Authority. The required RATA tests shall be performed using EPA Method 7E in Appendix A of 40 CFR 60. The NO<sub>x</sub> monitor span values shall be set appropriately, considering the allowable methods of operation and corresponding emission standards.
- c. SO<sub>2</sub> Monitor. The SO<sub>2</sub> monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 2 and shall comply with all requirements of 40 CFR 60.58b. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F. The required RATA tests shall be performed using EPA Method 6C in Appendix A of 40 CFR 60. The SO<sub>2</sub> monitor span values shall be set appropriately, considering the expected range of emissions and corresponding emission standards.
- d. Diluent Monitor. A continuous emission monitoring system for measuring the oxygen content of the flue gas at each location where carbon monoxide, sulfur dioxide, nitrogen oxides emissions are monitored shall be installed, calibrated, maintained, and operated in accordance with the requirements of 40 CFR 60.58b.
- e. Mercury Monitor. A mercury monitor (Hg CEMS) shall be installed, certified and operated as described in Specific Condition G.26.

[Permit No. 0570261-013-AC/PSD-FL-369C, specific condition 3.B.30.]

- G.22. COMS. A continuous opacity monitoring system (COMS) shall be installed, calibrated, operated, and maintained in exhaust stack in a manner sufficient to demonstrate continuous compliance with the opacity standard specified in this section. Opacity shall be based on a 6-minute block average computed from at least one observation (measurement) every 15 seconds. For the COMS, the 6-minute block averages shall begin at the top of each hour. The COMS shall meet the applicable requirements of 40 CFR 60.58b(c)(8). [Permit No. 0570261-007-AC/PSD-FL-369.]
- G.23. Hg-CEMS Certification. The Hg-CEMS shall be installed and functioning within the required performance specifications within the first three years of operation as specified in Specific Condition G.26: [Rules 62-4.070(3), 62-210.800, 62-210.200(BACT) and 62-297.520, F.A.C.; 40 CFR 60.7(a), 60.13(b), and 60.58b, and Appendix B; and, Permit No. 0570261-013-AC/PSD-FL-369C, specific condition 3.B.32.]
- G.24. CEMS Data Requirements. The CEMS shall express the results in the units of the applicable standard and in accordance with 40 CFR 60 subparts A, and Eb.
- a. Data Exclusion. Except for monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, each CEMS shall monitor and record emissions during all operations including episodes of startups, shutdowns, and malfunctions. Limited amounts of CEMS emissions data (other than mercury data) recorded during some of these episodes may be excluded from the corresponding compliance demonstration subject to the provisions of Specific Conditions G.19. and 20. in this subsection. The permittee shall minimize the duration of data excluded for such episodes to the extent practicable.
- b. Monitor Availability. Monitor availability for each CEMS used to demonstrate compliance shall be 95% or greater in any calendar quarter. Monitor availability shall be reported in the quarterly excess emissions report. In the event 95% availability is not achieved, the permittee shall provide the Department with a report identifying the problems in achieving 95% availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit, except as otherwise authorized by the Compliance Authority. The monitor availability requirements of this condition do not apply to the Hg CEMS for the first two years of operation of the CEM system. (This is consistent with the Hg CEMS availability requirement of subpart Eb.) For the Hg-CEMS, the monitor availability for the 2<sup>nd</sup> year of operation of the Hg-CEMS shall be 80% annually and for the 3<sup>rd</sup> year of operation of the Hg-CEMS shall be 90% annually, with a goal to achieve 95% annually afterwards unless the permittee indicates that the monitor

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is incapable of achieving these data availability requirements. If the Hg-CEMS is requested by the permittee to be used for compliance under 40 CFR 60, Subpart Eb then the applicable % monitor availability from 40 CFR 60, Subpart Eb must be met.

[Permit No. 0570261-013-AC/PSD-FL-369C, specific condition 3.B.33.]

**G.25. Continuous Flow Monitor.** A continuous flow monitor shall be operated to determine the stack exhaust flow rate to be used in determining mass emission rates. The flow monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 6. [Rules 62-210.200(BACT), 62-204.800(8), and 62-4.070(1) and (3), F.A.C.; Permit No. 0570261-007-AC/PSD-FL-369.]

**G.26. Mercury Continuous Emissions Monitoring System (Hg-CEMS).** Within 36 months of commencing operation, the owner or operator shall install and certify a mercury CEMS demonstrated to meet the requirements in Performance Specification 12A (PS-12A), "Specifications and Test Procedures for Total Vapor Phase Mercury Continuous Monitoring Systems in Stationary Sources," or that has passed verification tests conducted under the auspices of the U.S. Environmental Protection Agency's (EPA) Environmental Technology Verification (ETV) Program. If the vendor provides to the Department verification of certification difficulties such that the CEMS cannot be certified by the certification deadline, and every reasonable effort has been made to do so, the Department shall grant a reasonable extension of time to certify the CEMS. After certification the owner or operator will begin reporting Hg mass emissions data. The owner or operator shall adhere to the calibration drift and quarterly performance evaluation procedures and ongoing data quality assurance procedures in 40 CFR Part 60, Appendix F or 40 CFR Part 75, Appendix B. The mass emissions shall be estimated based on the actual data collected no later than 10 days following the end of the month. The mercury monitoring data results shall be submitted quarterly. The CEMS shall only be used as the method of compliance if the owner or operator, at a minimum, meets the requirements of 40 CFR 60.58b(n). Prior to use of the Hg-CEMS as the method to demonstrate compliance, the owner or operator shall submit written notice to the Department, and receive approval for missing data substitution and a data calculation approach plans.

Hg-CEMS Field Test. The permittee shall field test the application of a Hg-CEMS on Unit 4 for 1-year (12-months). After the 1-year of field testing of the Hg-CEMS, the permittee may keep or replace the Hg-CEMS with a mercury continuous automated sampling system (Hg-CASS) such as a sorbent trap system. The permittee shall provide the Department with its review and justification if the Hg-CEMS is replaced with a Hg-CASS.

Hg emissions data shall be made available upon request by the Department.

The Compliance Authority shall be copied on all notifications and reports.

[Rules 62-4.070(1) and (3), and 62-212.400(12) (Source Obligation, escape PSD), F.A.C., 40 CFR 60.58b, and, Hillsborough County Environmental Protection Commission Local Ordinance 1-3.53.1(f), *Municipal Solid Waste Incinerators* (for Hg monitoring); and, Permit No. 0570261-013-AC/PSD-FL-369C, specific condition 3.B.35.]

**Test Methods and Procedures**

**G.27. Test Methods.** Any required stack test shall be performed in accordance with the following methods:

<b><u>EPA Method</u></b>	<b><u>Description of Method and Comments</u></b>
<u>1 - 4</u>	<u>Determination of Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content. Methods shall be performed as necessary to support other methods.</u>
<u>5</u>	<u>Determination of Particulate Emissions. The minimum sample volume shall be 30 dry standard cubic feet.</u>
<u>6C</u>	<u>Determination of SO<sub>2</sub> Emissions (Instrumental).</u>
<u>7E</u>	<u>Determination of NO<sub>x</sub> Emissions (Instrumental). NO<sub>x</sub> emissions testing shall be conducted with the air heater operating at the highest heat input possible during the test.</u>

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<u>EPA Method</u>	<u>Description of Method and Comments</u>
<u>9</u>	<u>Visual Determination of Opacity</u>
<u>10</u>	<u>Measurement of Carbon Monoxide Emissions (Instrumental). The method shall be based on a continuous sampling train.</u>
<u>23</u>	<u>Measurement of Dioxin/Furan Emissions</u>
<u>26 or 26A</u>	<u>Determination of Hydrogen Chloride Emissions</u>
<u>29</u>	<u>Determination of Metals Emissions from Stationary Sources</u>
<u>CTM-027</u>	<u>Procedure for Collection and Analysis of Ammonia in Stationary Source</u> <ul style="list-style-type: none"> <li>• <u>This is an EPA conditional test method.</u></li> <li>• <u>The minimum detection limit shall be 1 ppm.</u></li> </ul>

Method CTM-027 is published on EPA's Technology Transfer Network Web Site at "<http://www.epa.gov/ttn/emc/ctm.html>". The other methods are specified in Appendix A of 40 CFR 60, adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. Tests shall be conducted in accordance with the appropriate test method and the applicable requirements specified in this permit, and NSPS Subpart A in 40 CFR 60. [Rules 62-204.800, F.A.C.; 40 CFR 60, Appendix A; and, Permit No. 0570261-007-AC/PSD-FL-369.]

**G.28. Compliance Testing.** Annual compliance stack tests for NO<sub>x</sub>, CO, SO<sub>2</sub>, HCl, PM/PM<sub>10</sub>, lead, cadmium, dioxins/furans, and ammonia slip shall be conducted during each federal fiscal year (October 1st to September 30th). Data collected from the reference method during the required RATA tests for CO, NO<sub>x</sub>, and SO<sub>2</sub> may be used to satisfy the annual testing requirement provided the notification requirements and emission testing requirements for performance and compliance tests of this permit are satisfied.

Prior to the certification of the Hg-CEMS or the Hg-CASS as described in Specific Condition G.26., performance tests for Hg emissions shall be conducted quarterly during the first three years of operation then on a calendar year basis to demonstrate compliance with the concentration/reduction standards.

After the certification of the Hg-CEMS or the Hg-CASS as described in Specific Condition G.26., the owner or operator may demonstrate compliance with all Hg limits in this permit with data collected from the Hg-CEMS or the Hg-CASS.

[Rules 62-297.310(7)(a) and (b), and 62-296.416, F.A.C., and 40 CFR 60.8 and 60.58b; and, [Permit No. 0570261-013-AC/PSD-FL-369C, specific condition 3.B.26.]

**G.29. Continuous Compliance.** The permittee shall demonstrate continuous compliance with the CO, NO<sub>x</sub>, and SO<sub>2</sub> emissions standards based on data collected by the certified CEMS. The permittee shall demonstrate continuous compliance with the opacity limit based on data collected by the required COMS. [Rule 62-210.200 (BACT), F.A.C., and 40 CFR 60, Subpart Eb; and, Permit No. 0570261-007-AC/PSD-FL-369.]

**Recordkeeping and Reporting Requirements**

**G.30. Segregated Solid Waste Record Keeping.** The following records shall be made and kept to demonstrate compliance with the segregated non-MSW percentage limitations of this subsection:

- a. Each segregated load of non-MSW materials, subject to the percentage weight limitations, which is received for processing, shall be documented as to waste description and weight. The weight of all waste materials received for processing shall be measured using the facility truck scale and recorded.
- b. Each day the total weight of segregated tires received shall be computed, and the daily total shall be added to the sum of the daily totals from the previous days in the current calendar month. At the end of each calendar month, the resultant monthly total weight of tires shall be divided by the total weight of all waste materials received in the same calendar month, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 3% limitation.

### SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

#### Subsection G. Emissions Units 107

c. Each day the total weight of segregated non-MSW materials received that are subject to the 5% restriction shall be computed, and the daily total shall be added to the sum of the daily totals from the previous days in the current calendar month. At the end of each calendar month, the resultant monthly total weight of segregated non-MSW materials subject to the 5% restriction shall be divided by the total weight of all waste materials received in the same calendar month, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 5% limitation.

[Rules 62-4.070(1) and (3), and 62-210.200(BACT), F.A.C.; and, [Permit No. 0570261-007-AC/PSD-FL-369.]

**G.31. Malfunction Notifications.** If temporarily unable to comply with any condition of the permit due to breakdown of equipment (malfunction) or destruction by hazard of fire, wind or by other cause, the permittee shall immediately (within one working day) notify the Compliance Authority. Notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules. If requested by the Compliance Authority, the owner or operator shall submit a quarterly written report describing the malfunction. [Rules 62-210.700(6) and 62-4.130, F.A.C.; and, Permit No. 0570261-007-AC/PSD-FL-369.]

**G.32. SIP Quarterly Report.** Within 30 days following the end of each calendar quarter, the permittee shall submit a report to the Compliance Authority summarizing: equipment malfunctions resulting in excluded CEMS data and/or excess emissions; and the monitor availability of each CEMS. The report shall contain the information and follow the general format specified in 40 CFR 60.7(c), subpart A. [Rules 62-4.070(3), 62-4.130, and 62-210.200(BACT), F.A.C.; and, Permit No. 0570261-007-AC/PSD-FL-369.]

#### **NSPS 40 CFR 60, Subpart A & Eb Requirements**

**G.33. NSPS Requirements - Subpart Eb.** Except as otherwise provided in this permit, these emissions units shall comply with all applicable provisions of 40 CFR 60, Subpart Eb, Large Municipal Waste Combustors, adopted and incorporated by reference in Rule 62-204.800(8)(b), F.A.C.; except that the Secretary is not the Administrator for purposes of the authorities cited at 40 CFR 60.50b(n). These emissions units shall comply with all applicable provisions of Appendix 40 CFR 60 Subpart Eb included with this permit. [Rule 62-204.800(8)(b)7., F.A.C.]

**G.34. NSPS Requirements - Subpart A.** This emissions unit shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions, including:

40 CFR 60.7, Notification and Recordkeeping

40 CFR 60.8, Performance Tests

40 CFR 60.11, Compliance with Standards and Maintenance Requirements

40 CFR 60.12, Circumvention

40 CFR 60.13, Monitoring Requirements

40 CFR 60.19, General Notification and Reporting Requirements,

which have been adopted by reference in Rule 62-204.800(8)(d), F.A.C.; except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16. This emissions unit shall comply with all applicable provisions of **Appendix 40 CFR 60 Subpart A** included with this permit. [Rule 62-204.800(8)(d), F.A.C.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection H. Emissions Units 108 & 110

The specific conditions in this section apply to the following emissions units:

<u>E.U. ID No.</u>	<u>Brief Description</u>
<u>108</u>	<u>Pebble Lime Storage Silo - Unit 4</u>
<u>110</u>	<u>Activated Carbon Storage Silo - Unit 4</u>

This emissions unit subsection addresses one pebble lime storage silo and one activated carbon storage silo dedicated to Unit 4. Each silo has a volume of approximately 2,900 cubic feet and is equipped with its own fabric filter baghouse.

*{Permitting note(s): These emissions units are regulated under Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD) [PSD-FL-369, as amended]; Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT); and, Florida Electrical Power Plant Site Certifications [PA82-19A].}*

**Equipment and Operational Limitations**

**H.1. Baghouse Controls.** Each emissions unit identified for lime and carbon storage shall be controlled by a baghouse system. Each required baghouse shall be designed, operated, and maintained to achieve a PM design specification of 0.015 gr/dscf. [Application, Design and Rule 62-4.070(3), F.A.C.; and, Permit No. 0570261-007-AC/PSD-FL-369.]

**H.2. Hours of Operation.** These emission units may operate continuously (8,760 hours/year). [Rules 62-4.160(2), and 62-210.228(PTE), F.A.C.; and, Permit No. 0570261-007-AC/PSD-FL-369.]

**Emission Limitations and Standards**

**H.3. Emissions Limits.** The following standards apply to each emissions point of this unit:

- a. Visible emissions are limited to 5% opacity from each of the above listed emissions points controlled by a baghouse.
  - b. Fugitive emissions are limited to 10% opacity from any emissions point not controlled by a baghouse.
- {Permitting Note: The 5% opacity limitation is consistent with the design specifications and provides reasonable assurance that annual emissions of PM/PM<sub>10</sub> for Emissions Unit ID Nos. 108, 110 & 112 combined will be less than 0.40 TPY.}*

[Rules 62-4.070(3), F.A.C.; and, Permit No. 0570261-007-AC/PSD-FL-369.]

**Air Pollution Control Technologies and Measures**

**H.4. Baghouse O&M Plan.** For each baghouse, the permittee shall prepare an operation and maintenance (O&M) plan to address proper operation, parametric monitoring, and a schedule for conducting periodic inspections and preventive maintenance. Baghouse inspections and maintenance activities shall be recorded in a written log. [Rule 62-4.070(3), F.A.C.; and, Permit No. 0570261-007-AC/PSD-FL-369.]

**Test Methods and Procedures**

**H.5. Test Methods.** Any required tests shall be performed in accordance with the following reference methods and the applicable requirements of Appendix SC of this permit:

<u>Method</u>	<u>Description of Method and Comments</u>
<u>5</u>	<u>Method for Determining Particulate Matter Emissions</u>
<u>9</u>	<u>Visual Determination of the Opacity of Emissions from Stationary Sources</u>

[Permit No. 0570261-007-AC/PSD-FL-369.]

**H.6. Compliance Demonstrations.** Compliance with the visible emission limits for each emission point shall be demonstrated during each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>). Compliance shall be



**SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.**

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**Subsection H. Emissions Units 108 & 110**

demonstrated with the emission standards for visible emissions in accordance with EPA Method 9. [Rules 62-4.070(3), and 62-297.310(7)(a), F.A.C. ; and, Permit No. 0570261-007-AC/PSD-FL-369.]

SECTION III. EMISSIONS UNITS AND SPECIFIC CONDITIONS.

Subsection I. Emissions Unit 111

The specific conditions in this section apply to the following emissions units:

<u>E.U. ID No.</u>	<u>Brief Description</u>
111	Cooling Tower Cell - Unit 4

This emissions unit is a cooling tower cell for Unit 4.

{Permitting note(s): This emissions unit is regulated under Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD) [PSD-FL-369, as amended]; Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT); and, Florida Electrical Power Plant Site Certifications [PA82-19A].}

**Equipment and Operational Limitations**

**I.1. Cooling Tower.** The permittee is authorized to operate one cooling tower cell with the following nominal design characteristics: a circulating water flow rate of 11,000 gpm; drift eliminators; and a drift rate of no more than 0.001 percent of the circulating water flow. [Permit No. 0570261-007-AC/ PSD-FL-369.]

**Emission Limitations and Standards**

**I.2. Drift Rate.** The permittee certified that the cooling tower was constructed to achieve the specified drift rate of no more than 0.001 percent of the circulating water flow rate. [Permit No. 0570261-007-AC/PSD-FL-369.]

{Permitting Note: This work practice standard is established as BACT avoidance for PM/PM<sub>10</sub> emissions from the cooling tower. Based on this design criteria, potential emissions are expected to be less than 0.5 tons of PM per year and less than 0.25 tons of PM<sub>10</sub> per year. Actual emissions are expected to be lower than these rates.}

**SECTION IV. APPENDICES.**

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**The Following Appendices are Enforceable Parts of This Permit:**

Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers (version dated 2/05/97).

Appendix ATP, U.S. EPA Alternative Test Procedure Approval dated June 3, 2004.

Appendix BW, Biomedical Waste Definitions.

Appendix I-1, List of Insignificant Emissions Units and/or Activities.

APPENDIX SS-1, STACK SAMPLING FACILITIES version dated 10/07/96

Appendix TV-6, Title V General Conditions.

Appendix U-1, List of Unregulated Emissions Units and/or Activities.

Appendix 40 CFR 60 Subpart A, NSPS General Provisions (version dated 2/5/2010).

Appendix 40 CFR 60 Subpart Cb, Emissions Guidelines (EG) and Compliance Times for Large Municipal Waste Combustors (version dated 03/24/2010).

Appendix 40 CFR 60 Subpart Eb, NSPS for Large Municipal Waste Combustors (version dated 04/21/2008).

FIGURE 1 - SUMMARY REPORT-GASEOUS AND OPACITY EXCESS EMISSION AND MONITORING SYSTEM PERFORMANCE REPORT VERSION DATED 07/96

TABLE 297.310-1, CALIBRATION SCHEDULE version dated 10/07/96



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
RESEARCH TRIANGLE PARK, NC 27711

JUN 3 2004

OFFICE OF  
AIR QUALITY PLANNING  
AND STANDARDS

Mr. Herbert T. Dixon, Jr.  
Vice President  
TESTAR, Inc.  
7424-108 ACC Boulevard  
Raleigh, NC 27617

Dear Mr. Dixon:

This is in response to your letter dated May 6, 2004, that requested approval for a modification to EPA Method 23 (40 CFR 60, Appendix A). Method 23 is required for determining compliance with polychlorinated dibenzo-p-dioxin and polychlorinated dibenzofuran emission limits in 40 CFR 60.30b - 60.39b (Subpart Cb), 40 CFR 60.50a - 60.59a (Subpart Ea), 40 CFR 60.50b - 60.59b (Subpart Eb), and 40 CFR 63.1340 - 63.1359 (Subpart LLL). In your letter you also cited Subpart Ca. Subpart Ca was withdrawn in 1995 when Subpart Cb became a final rule.

Method 23 specifies that the tester use acetone, methylene chloride, and toluene to recover the sample from the sampling train glassware. You have requested that we approve an alternative test procedure to omit the methylene chloride rinse. You are proposing this modification on behalf of your clients who operate municipal waste combustors subject to either Subpart Cb, Ea or Eb or operate Portland cement plants subject to Subpart LLL at the locations shown in the enclosure.

In addition, you requested approval of the same modification to EPA Method 0023A (EPA Publication # SW-846) on behalf of your clients who operate hazardous waste combustors. Method 0023A is required for determining compliance with polychlorinated dibenzo-p-dioxin and polychlorinated dibenzofuran emission limits in 40 CFR 264.340 - 264.347 (Subpart O). EPA's Office of Solid Waste is responsible for the emission limits on hazardous waste combustors in 40 CFR 264.343 as well as Method 0023A, and we do not have the delegated authority to approve alternatives to their test procedures.

Based on data that the EPA collected on the relative efficiency of rinsing with methylene chloride and toluene as opposed to rinsing with toluene alone, we agree that it is acceptable to omit the methylene chloride rinse. Therefore, we are approving your request to omit the methylene chloride rinse from Method 23, when the method is used to determine compliance with either 40 CFR 60.30b - 60.39b (Subpart Cb), 40 CFR 60.50a - 60.59a (Subpart Ea), 40 CFR

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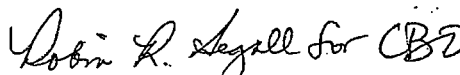
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60.50b - 60.59b (Subpart Eb), or 40 CFR 63.1340 - 63.1359 (Subpart LLL) at the individual facilities specified in the enclosure (Tables I, II, and III).

If you need further assistance, please contact Gary McAlister at (919) 541-1062.

Sincerely,



Conniesue B. Oldham, Ph.D., Group Leader  
Source Measurement Technology Group

Enclosure

cc: Jack Harvanek, Region I  
Donald Wright, Region II  
Chris Pilla, Region III  
Dave McNeal, Region IV  
Nabil Fayoumi, Region V  
Charles Ritchey, Region VI  
Don Bahnke, Region VII  
Stanley Tong, Region IX  
Paul Boys, Region X

**APPENDIX ATP**

**U.S. EPA ALTERNATIVE TEST PROCEDURE APPROVAL DATED JUNE 3, 2004**

**ATTACHMENT 1  
MUNICIPAL WASTE COMBUSTION FACILITIES**

<b>Facility Name</b>	<b>Facility Address</b>
Wheelabrator Saugus, Inc.	Saugus, MA
Wheelabrator North Andover, Inc.	North Andover, MA
Wheelabrator Millbury, Inc.	Millbury, MA
Wheelabrator Concord, Inc.	Concord, NH
Wheelabrator Claremont, Inc.	Claremont, NH
Wheelabrator Lisbon, Inc.	Lisbon, CT
Wheelabrator Bridgeport, Inc.	Bridgeport, CT
Wheelabrator Hudson Falls, Inc.	Hudson Falls, NY
Wheelabrator Westchester, Inc.	Peekskill, NY
Wheelabrator Falls, Inc.	Morrisville PA
Wheelabrator Gloucester, Inc.	Westville, NJ
Wheelabrator Baltimore, Inc.	Baltimore, MD
Wheelabrator North Broward, Inc.	Pompano Beach, FL
Wheelabrator South Broward, Inc.	Ft. Lauderdale, FL
Wheelabrator Pinellas, Inc.	St. Petersburg, FL
Wheelabrator McKay Bay, Inc.	Tampa, FL
Wheelabrator Ridge, Inc.	Auburndale, FL
Wheelabrator Spokane, Inc.	Spokane, WA
Covanta Haverhill, Inc.	Haverhill, MA
Mid-Conn Resource Recovery Facility	Hartford, CT
Bristol Resource Recovery Facility	Bristol, CT
Wallingford Resource Recovery Facility	Wallingford, CT
Onondaga County Resource Recovery Facility	Syracuse, NY
Babylon Resource Recovery Facility	Babylon, NY
Huntington Resource Recovery Facility	Huntington, NY
Warren County Resource Recovery Facility	Oxford, NJ
Union County Resource Recovery Facility	Rahway, NJ
Lancaster County Resource Recovery Facility	Bainbridge, PA
Montgomery County Resource Recovery Facility	Dickerson, MD
Alexandria Waste to Energy Facility	Alexandria, VA
I-95 Energy / Resource Recovery Facility	Lorton, FL
Huntsville Resource Recovery Facility	Huntsville, AL
Lake County Resource Recovery Facility	Okahumpka, FL
Pasco County Resource Recovery Facility	Spring Hill, FL
Hillsborough County Resource Recovery Facility	Tampa, FL
Lee County Resource Recovery Facility	Ft. Meyers, FL
Michigan Waste Energy, Inc.	Detroit, MI
Kent County Resource Recovery Facility	Grand Rapids, MI
Indianapolis Resource Recovery Facility	Indianapolis, IN
Hennepin Resource Recovery Facility	Minneapolis, MN
Marion County Resource Recovery Facility	Salem, OR
Stanislaus Resource Recovery Facility	Crows Landing, CA
Honolulu Resource Recovery Venture	Honolulu, HI
York County Resource Recovery Facility	York, PA

APPENDIX ATP

U.S. EPA ALTERNATIVE TEST PROCEDURE APPROVAL DATED JUNE 3, 2004

ATTACHMENT 1  
MUNICIPAL WASTE COMBUSTION FACILITIES  
(continued)

Metro-Dade Resource Recovery Facility	Miami, FL
Panama City Resource Recovery Facility	Panama City, FL
Camden County Resource Recovery Facility	Camden, NJ
Montenay Charleston Resource Recovery, Inc.	Charleston, SC
Southeastern Connecticut Resource Recovery Facility	Preston, CT
Hempstead Resource Recovery Facility	Hempstead, NY
Mid-Maine Waste Action Corporation	Auburn, ME
Maine Energy Recovery Company	Biddeford, ME
SPSA	Portsmouth, VA

**GENERAL PROVISIONS**

(version dated 2/5/2010)

<b>E.U. ID No.</b>	<b>Brief Description</b>
001, 002 & 003	Municipal Waste Combustor Units 1, 2 & 3
107	Municipal Waste Combustor Unit 4
112	Ash Handling System (applies to the ash conveying systems)

**Federal Regulations Adopted by Reference**

In accordance with Rule 62-204.800, F.A.C., the following federal regulation in Title 40 of the Code of Federal Regulations (CFR) was adopted by reference. The original federal rule numbering has been retained.

*Federal Revision Date: January 28, 2009*

*State Rule Effective Date: November 18, 2009*

*Standardized Conditions Revision Date: February 5, 2010*

**Subpart A—General Provisions**

**Index**

- 40 CFR 60.1**     **Applicability.**
- 40 CFR 60.2**     **Definitions.**
- 40 CFR 60.3**     **Units and abbreviations.**
- 40 CFR 60.4**     **Address.**
- 40 CFR 60.5**     **Determination of construction or modification.**
- 40 CFR 60.6**     **Review of plans.**
- 40 CFR 60.7**     **Notification and record keeping.**
- 40 CFR 60.8**     **Performance tests.**
- 40 CFR 60.9**     **Availability of information.**
- 40 CFR 60.10**    **State authority.**
- 40 CFR 60.11**    **Compliance with standards and maintenance requirements.**
- 40 CFR 60.12**    **Circumvention.**
- 40 CFR 60.13**    **Monitoring requirements.**
- 40 CFR 60.14**    **Modification.**
- 40 CFR 60.15**    **Reconstruction.**
- 40 CFR 60.16**    **Priority list.**
- 40 CFR 60.17**    **Incorporations by reference.**
- 40 CFR 60.18**    **General control device requirements.**
- 40 CFR 60.19**    **General notification and reporting requirements.**

**End of Index**

**§ 60.1 Applicability.**

- (a) Except as provided in subparts B and C, the provisions of this part apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.
- (b) Any new or revised standard of performance promulgated pursuant to section 111(b) of the Act shall apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of such new or revised standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.
- (c) In addition to complying with the provisions of this part, the owner or operator of an affected facility may be required to obtain an operating permit issued to stationary sources by an authorized State air pollution control agency or by the Administrator of the U.S. Environmental Protection Agency (EPA) pursuant to Title V of the Clean Air Act (Act) as amended November 15, 1990 (42 U.S.C. 7661). For more information about obtaining an operating permit see part 70 of this chapter.
- (d) *Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia. {Not Applicable}*



## GENERAL PROVISIONS

(version dated 2/5/2010)

[40 FR 53346, Nov. 17, 1975, as amended at 55 FR 51382, Dec. 13, 1990; 59 FR 12427, Mar. 16, 1994; 62 FR 52641, Oct. 8, 1997]

**§ 60.2 Definitions.**

The terms used in this part are defined in the Act or in this section as follows:

*Act* means the Clean Air Act (42 U.S.C. 7401 *et seq.* )

*Administrator* means the Administrator of the Environmental Protection Agency or his authorized representative.

*Affected facility* means, with reference to a stationary source, any apparatus to which a standard is applicable.

*Alternative method* means any method of sampling and analyzing for an air pollutant which is not a reference or equivalent method but which has been demonstrated to the Administrator's satisfaction to, in specific cases, produce results adequate for his determination of compliance.

*Approved permit program* means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to Title V of the Act (42 U.S.C. 7661).

*Capital expenditure* means an expenditure for a physical or operational change to an existing facility which exceeds the product of the applicable "annual asset guideline repair allowance percentage" specified in the latest edition of Internal Revenue Service (IRS) Publication 534 and the existing facility's basis, as defined by section 1012 of the Internal Revenue Code. However, the total expenditure for a physical or operational change to an existing facility must not be reduced by any "excluded additions" as defined in IRS Publication 534, as would be done for tax purposes.

*Clean coal technology demonstration project* means a project using funds appropriated under the heading 'Department of Energy-Clean Coal Technology', up to a total amount of \$2,500,000,000 for commercial demonstrations of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency.

*Commenced* means, with respect to the definition of *new source* in section 111(a)(2) of the Act, that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

*Construction* means fabrication, erection, or installation of an affected facility.

*Continuous monitoring system* means the total equipment, required under the emission monitoring sections in applicable subparts, used to sample and condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters.

*Electric utility steam generating unit* means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the affected facility.

*Equivalent method* means any method of sampling and analyzing for an air pollutant which has been demonstrated to the Administrator's satisfaction to have a consistent and quantitatively known relationship to the reference method, under specified conditions.

*Excess Emissions and Monitoring Systems Performance Report* is a report that must be submitted periodically by a source in order to provide data on its compliance with stated emission limits and operating parameters, and on the performance of its monitoring systems.

*Existing facility* means, with reference to a stationary source, any apparatus of the type for which a standard is promulgated in this part, and the construction or modification of which was commenced before the date of proposal of that standard; or any apparatus which could be altered in such a way as to be of that type.

*Force majeure* means, for purposes of §60.8, an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the owner or operator from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite the affected facility's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility.

## GENERAL PROVISIONS

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*Isokinetic sampling* means sampling in which the linear velocity of the gas entering the sampling nozzle is equal to that of the undisturbed gas stream at the sample point.

*Issuance* of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a Title V permit occurs immediately after the EPA takes final action on the final permit.

*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.

*Modification* means any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted.

*Monitoring device* means the total equipment, required under the monitoring of operations sections in applicable subparts, used to measure and record (if applicable) process parameters.

*Nitrogen oxides* means all oxides of nitrogen except nitrous oxide, as measured by test methods set forth in this part.

*One-hour period* means any 60-minute period commencing on the hour.

*Opacity* means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

*Owner or operator* means any person who owns, leases, operates, controls, or supervises an affected facility or a stationary source of which an affected facility is a part.

*Part 70 permit* means any permit issued, renewed, or revised pursuant to part 70 of this chapter.

*Particulate matter* means any finely divided solid or liquid material, other than uncombined water, as measured by the reference methods specified under each applicable subpart, or an equivalent or alternative method.

*Permit program* means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

*Permitting authority* means:

- (1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or
- (2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

*Proportional sampling* means sampling at a rate that produces a constant ratio of sampling rate to stack gas flow rate.

*Reactivation of a very clean coal-fired electric utility steam generating unit* means any physical change or change in the method of operation associated with the commencement of commercial operations by a coal-fired utility unit after a period of discontinued operation where the unit:

- (1) Has not been in operation for the two-year period prior to the enactment of the Clean Air Act Amendments of 1990, and the emissions from such unit continue to be carried in the permitting authority's emissions inventory at the time of enactment;
- (2) Was equipped prior to shut-down with a continuous system of emissions control that achieves a removal efficiency for sulfur dioxide of no less than 85 percent and a removal efficiency for particulates of no less than 98 percent;
- (3) Is equipped with low-NO<sub>x</sub> burners prior to the time of commencement of operations following reactivation; and
- (4) Is otherwise in compliance with the requirements of the Clean Air Act.

*Reference method* means any method of sampling and analyzing for an air pollutant as specified in the applicable subpart.

*Repowering* means replacement of an existing coal-fired boiler with one of the following clean coal technologies: atmospheric or pressurized fluidized bed combustion, integrated gasification combined cycle, magnetohydrodynamics, direct and indirect coal-fired turbines, integrated gasification fuel cells, or as determined by the Administrator, in consultation with

## GENERAL PROVISIONS

(version dated 2/5/2010)

the Secretary of Energy, a derivative of one or more of these technologies, and any other technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of November 15, 1990. Repowering shall also include any oil and/or gas-fired unit which has been awarded clean coal technology demonstration funding as of January 1, 1991, by the Department of Energy.

*Run* means the net period of time during which an emission sample is collected. Unless otherwise specified, a run may be either intermittent or continuous within the limits of good engineering practice.

*Shutdown* means the cessation of operation of an affected facility for any purpose.

*Six-minute period* means any one of the 10 equal parts of a one-hour period.

*Standard* means a standard of performance proposed or promulgated under this part.

*Standard conditions* means a temperature of 293 K (68F) and a pressure of 101.3 kilopascals (29.92 in Hg).

*Startup* means the setting in operation of an affected facility for any purpose.

*State* means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement: (1) The provisions of this part; and/or (2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

*Stationary source* means any building, structure, facility, or installation which emits or may emit any air pollutant.

*Title V permit* means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

*Volatile Organic Compound* means any organic compound which participates in atmospheric photochemical reactions; or which is measured by a reference method, an equivalent method, an alternative method, or which is determined by procedures specified under any subpart.

[44 FR 55173, Sept. 25, 1979; as amended at 45 FR 5617, Jan. 23, 1980; 45 FR 85415, Dec. 24, 1980; 54 FR 6662, Feb. 14, 1989; 55 FR 51382, Dec. 13, 1990; 57 FR 32338, July 21, 1992; 59 FR 12427, Mar. 16, 1994; 72 FR 27442, May 16, 2007]

### § 60.3 Units and abbreviations.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

(a) System International (SI) units of measure:

A—ampere

g—gram

Hz—hertz

J—joule

K—degree Kelvin

kg—kilogram

m—meter

m<sup>3</sup>—cubic meter

mg—milligram—10<sup>-3</sup>gram

mm—millimeter—10<sup>-3</sup>meter

Mg—megagram—10<sup>6</sup> gram

mol—mole

N—newton

ng—nanogram—10<sup>-9</sup>gram

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nm—nanometer— $10^{-9}$  meter

Pa—pascal

s—second

V—volt

W—watt

$\Omega$ —ohm

$\mu$ g—microgram— $10^{-6}$  gram

(b) Other units of measure:

Btu—British thermal unit

$^{\circ}$ C—degree Celsius (centigrade)

cal—calorie

cfm—cubic feet per minute

cu ft—cubic feet

dcf—dry cubic feet

dcm—dry cubic meter

dscf—dry cubic feet at standard conditions

dscm—dry cubic meter at standard conditions

eq—equivalent

$^{\circ}$ F—degree Fahrenheit

ft—feet

gal—gallon

gr—grain

g-eq—gram equivalent

hr—hour

in—inch

k—1,000

l—liter

lpm—liter per minute

lb—pound

meq—milliequivalent

min—minute

ml—milliliter

mol. wt.—molecular weight

ppb—parts per billion

ppm—parts per million

psia—pounds per square inch absolute

psig—pounds per square inch gage

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°R—degree Rankine

scf—cubic feet at standard conditions

scfh—cubic feet per hour at standard conditions

scm—cubic meter at standard conditions

sec—second

sq ft—square feet

std—at standard conditions

(c) Chemical nomenclature:

CdS—cadmium sulfide

CO—carbon monoxide

CO<sub>2</sub>—carbon dioxide

HCl—hydrochloric acid

Hg—mercury

H<sub>2</sub>O—water

H<sub>2</sub>S—hydrogen sulfide

H<sub>2</sub>SO<sub>4</sub>—sulfuric acid

N<sub>2</sub>—nitrogen

NO—nitric oxide

NO<sub>2</sub>—nitrogen dioxide

NO<sub>x</sub>—nitrogen oxides

O<sub>2</sub>—oxygen

SO<sub>2</sub>—sulfur dioxide

SO<sub>3</sub>—sulfur trioxide

SO<sub>x</sub>—sulfur oxides

(d) Miscellaneous:

A.S.T.M.—American Society for Testing and Materials

[42 FR 37000, July 19, 1977; 42 FR 38178, July 27, 1977]

§ 60.4 Address.

**All addresses that pertain to Florida have been incorporated. To see the complete list of addresses please go to <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&rgn=div6&view=text&node=40:6.0.1.1.1.1&idno=40>.**

Link to an amendment published at 73 FR 18164, Apr. 3, 2008.

- (a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted in duplicate to the appropriate Regional Office of the U.S. Environmental Protection Agency to the attention of the Director of the Division indicated in the following list of EPA Regional Offices.

Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee), Director, Air and Waste Management Division, U.S. Environmental Protection Agency, 345 Courtland Street, NE., Atlanta, GA 30365.

- (b) Section 111(c) directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards of performance for new stationary sources located in such State. All information required to be

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submitted to EPA under paragraph (a) of this section, must also be submitted to the appropriate State Agency of any State to which this authority has been delegated (provided, that each specific delegation may except sources from a certain Federal or State reporting requirement). The appropriate mailing address for those States whose delegation request has been approved is as follows:

(K) Bureau of Air Quality Management, Department of Environmental Regulation, Twin Towers Office Building, 2600 Blair Stone Road, Tallahassee, FL 32301.

[40 FR 18169, Apr. 25, 1975]

**Editorial Note:** For Federal Register citations affecting §60.4 see the List of CFR Sections Affected which appears in the Finding Aids section of the printed volume and on GPO Access.

**§ 60.5 Determination of construction or modification.**

- (a) When requested to do so by an owner or operator, the Administrator will make a determination of whether action taken or intended to be taken by such owner or operator constitutes construction (including reconstruction) or modification or the commencement thereof within the meaning of this part.
- (b) The Administrator will respond to any request for a determination under paragraph (a) of this section within 30 days of receipt of such request.

[40 FR 58418, Dec. 16, 1975]

**§ 60.6 Review of plans.**

- (a) When requested to do so by an owner or operator, the Administrator will review plans for construction or modification for the purpose of providing technical advice to the owner or operator.
- (b)
  - (1) A separate request shall be submitted for each construction or modification project.
  - (2) Each request shall identify the location of such project, and be accompanied by technical information describing the proposed nature, size, design, and method of operation of each affected facility involved in such project, including information on any equipment to be used for measurement or control of emissions.
- (c) Neither a request for plans review nor advice furnished by the Administrator in response to such request shall (1) relieve an owner or operator of legal responsibility for compliance with any provision of this part or of any applicable State or local requirement, or (2) prevent the Administrator from implementing or enforcing any provision of this part or taking any other action authorized by the Act.

[36 FR 24877, Dec. 23, 1971, as amended at 39 FR 9314, Mar. 8, 1974]

**§ 60.7 Notification and record keeping.**

- (a) Any owner or operator subject to the provisions of this part shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, as follows:
  - (1) A notification of the date construction (or reconstruction as defined under §60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.
  - (2) [Reserved]
  - (3) A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.
  - (4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in §60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.
  - (5) A notification of the date upon which demonstration of the continuous monitoring system performance commences in accordance with §60.13(c). Notification shall be postmarked not less than 30 days prior to such date.

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- (6) A notification of the anticipated date for conducting the opacity observations required by §60.11(e)(1) of this part. The notification shall also include, if appropriate, a request for the Administrator to provide a visible emissions reader during a performance test. The notification shall be postmarked not less than 30 days prior to such date.
- (7) A notification that continuous opacity monitoring system data results will be used to determine compliance with the applicable opacity standard during a performance test required by §60.8 in lieu of Method 9 observation data as allowed by §60.11(e)(5) of this part. This notification shall be postmarked not less than 30 days prior to the date of the performance test.
- (b) Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
- (c) Each owner or operator required to install a continuous monitoring device shall submit excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or summary report form (see paragraph (d) of this section) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following information:
  - (1) The magnitude of excess emissions computed in accordance with §60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
  - (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.
  - (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
  - (4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.
- (d) The summary report form shall contain the information and be in the format shown in figure 1 unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.
  - (1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in §60.7(c) need not be submitted unless requested by the Administrator.
  - (2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in §60.7(c) shall both be submitted.

Figure 1—Summary Report—Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant (Circle One—SO<sub>2</sub>/NO<sub>x</sub>/TRS/H<sub>2</sub>S/CO/Opacity)

Reporting period dates: From \_\_\_\_\_ to \_\_\_\_\_

Company: \_\_\_\_\_

Emission Limitation \_\_\_\_\_

Address: \_\_\_\_\_

Monitor Manufacturer and Model No. \_\_\_\_\_

Date of Latest CMS Certification or Audit \_\_\_\_\_

Process Unit(s) Description: \_\_\_\_\_

Total source operating time in reporting period<sup>1</sup> \_\_\_\_\_

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Emission data summary <sup>1</sup>		CMS performance summary <sup>1</sup>	
1. Duration of excess emissions in reporting period due to:		1. CMS downtime in reporting period due to:	
a. Startup/shutdown		a. Monitor equipment malfunctions	
b. Control equipment problems		b. Non-Monitor equipment malfunctions	
c. Process problems		c. Quality assurance calibration	
d. Other known causes		d. Other known causes	
e. Unknown causes		e. Unknown causes	
2. Total duration of excess emission		2. Total CMS Downtime	
3. Total duration of excess emissions × (100) / [Total source operating time]	% <sup>2</sup>	3. [Total CMS Downtime] × (100) / [Total source operating time]	% <sup>2</sup>

<sup>1</sup>For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup>For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

On a separate page, describe any changes since last quarter in CMS, process or controls. I certify that the information contained in this report is true, accurate, and complete.

\_\_\_\_\_  
Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

(e)

- (1) Notwithstanding the frequency of reporting requirements specified in paragraph (c) of this section, an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:
  - (i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;
  - (ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and the applicable standard; and
  - (iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in paragraph (e)(2) of this section.
- (2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance



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requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

- (3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in paragraphs (e)(1) and (e)(2) of this section.
- (f) Any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records, except as follows:
  - (1) This paragraph applies to owners or operators required to install a continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (f) of this section, the owner or operator shall retain the most recent consecutive three averaging periods of subhourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard.
  - (2) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (f) of this section, the owner or operator shall retain all subhourly measurements for the most recent reporting period. The subhourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.
  - (3) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (f) of this section, if the Administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.
- (g) If notification substantially similar to that in paragraph (a) of this section is required by any other State or local agency, sending the Administrator a copy of that notification will satisfy the requirements of paragraph (a) of this section.
- (h) Individual subparts of this part may include specific provisions which clarify or make inapplicable the provisions set forth in this section.

[36 FR 24877, Dec. 28, 1971, as amended at 40 FR 46254, Oct. 6, 1975; 40 FR 58418, Dec. 16, 1975; 45 FR 5617, Jan. 23, 1980; 48 FR 48335, Oct. 18, 1983; 50 FR 53113, Dec. 27, 1985; 52 FR 9781, Mar. 26, 1987; 55 FR 51382, Dec. 13, 1990; 59 FR 12428, Mar. 16, 1994; 59 FR 47265, Sep. 15, 1994; 64 FR 7463, Feb. 12, 1999]

**§ 60.8 Performance tests.**

- (a) Except as specified in paragraphs (a)(1), (a)(2), (a)(3), and (a)(4) of this section, within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, or at such other times specified by this part, and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).

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- (1) If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure, the owner or operator shall notify the Administrator, in writing as soon as practicable following the date the owner or operator first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.
  - (2) The owner or operator shall provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure occurs.
  - (3) The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Administrator. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practicable.
  - (4) Until an extension of the performance test deadline has been approved by the Administrator under paragraphs (a)(1), (2), and (3) of this section, the owner or operator of the affected facility remains strictly subject to the requirements of this part.
- (b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.
- (c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.
- (d) The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Administrator (or delegated State or local agency) as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Administrator (or delegated State or local agency) by mutual agreement.
- (e) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:
- (1) Sampling ports adequate for test methods applicable to such facility. This includes (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.
  - (2) Safe sampling platform(s).
  - (3) Safe access to sampling platform(s).
  - (4) Utilities for sampling and testing equipment.

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- (f) Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

[36 FR 24877, Dec. 23, 1971, as amended at 39 FR 9314, Mar. 8, 1974; 42 FR 57126, Nov. 1, 1977; 44 FR 33612, June 11, 1979; 54 FR 6662, Feb. 14, 1989; 54 FR 21344, May 17, 1989; 64 FR 7463, Feb. 12, 1999; 72 FR 27442, May 16, 2007]

**§ 60.9 Availability of information.**

The availability to the public of information provided to, or otherwise obtained by, the Administrator under this part shall be governed by part 2 of this chapter. (Information submitted voluntarily to the Administrator for the purposes of §§60.5 and 60.6 is governed by §§2.201 through 2.213 of this chapter and not by §2.301 of this chapter.)

**§ 60.10 State authority.**

The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from:

- (a) Adopting and enforcing any emission standard or limitation applicable to an affected facility, provided that such emission standard or limitation is not less stringent than the standard applicable to such facility.
- (b) Requiring the owner or operator of an affected facility to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of such facility.

**§ 60.11 Compliance with standards and maintenance requirements.**

- (a) Compliance with standards in this part, other than opacity standards, shall be determined in accordance with performance tests established by §60.8, unless otherwise specified in the applicable standard.
- (b) Compliance with opacity standards in this part shall be determined by conducting observations in accordance with Method 9 in appendix A of this part, any alternative method that is approved by the Administrator, or as provided in paragraph (e)(5) of this section. For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).
- (c) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.
- (d) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
- (e)
- (1) For the purpose of demonstrating initial compliance, opacity observations shall be conducted concurrently with the initial performance test required in §60.8 unless one of the following conditions apply. If no performance test under §60.8 is required, then opacity observations shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated but no later than 180 days after initial startup of the facility. If visibility or other conditions prevent the opacity observations from being conducted concurrently with the initial performance test required under §60.8, the source owner or operator shall reschedule the opacity observations as soon after the initial performance test as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. In these cases, the 30-day prior notification to the Administrator required in §60.7(a)(6) shall be waived. The rescheduled opacity observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under §60.8. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity observations from being made concurrently with the initial performance test in accordance with procedures contained in Method 9 of

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appendix B of this part. Opacity readings of portions of plumes which contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity standards. The owner or operator of an affected facility shall make available, upon request by the Administrator, such records as may be necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification. Except as provided in paragraph (e)(5) of this section, the results of continuous monitoring by transmissometer which indicate that the opacity at the time visual observations were made was not in excess of the standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the source shall meet the burden of proving that the instrument used meets (at the time of the alleged violation) Performance Specification 1 in appendix B of this part, has been properly maintained and (at the time of the alleged violation) that the resulting data have not been altered in any way.

- (2) Except as provided in paragraph (e)(3) of this section, the owner or operator of an affected facility to which an opacity standard in this part applies shall conduct opacity observations in accordance with paragraph (b) of this section, shall record the opacity of emissions, and shall report to the Administrator the opacity results along with the results of the initial performance test required under §60.8. The inability of an owner or operator to secure a visible emissions observer shall not be considered a reason for not conducting the opacity observations concurrent with the initial performance test.
- (3) The owner or operator of an affected facility to which an opacity standard in this part applies may request the Administrator to determine and to record the opacity of emissions from the affected facility during the initial performance test and at such times as may be required. The owner or operator of the affected facility shall report the opacity results. Any request to the Administrator to determine and to record the opacity of emissions from an affected facility shall be included in the notification required in §60.7(a)(6). If, for some reason, the Administrator cannot determine and record the opacity of emissions from the affected facility during the performance test, then the provisions of paragraph (e)(1) of this section shall apply.
- (4) An owner or operator of an affected facility using a continuous opacity monitor (transmissometer) shall record the monitoring data produced during the initial performance test required by §60.8 and shall furnish the Administrator a written report of the monitoring results along with Method 9 and §60.8 performance test results.
- (5) An owner or operator of an affected facility subject to an opacity standard may submit, for compliance purposes, continuous opacity monitoring system (COMS) data results produced during any performance test required under §60.8 in lieu of Method 9 observation data. If an owner or operator elects to submit COMS data for compliance with the opacity standard, he shall notify the Administrator of that decision, in writing, at least 30 days before any performance test required under §60.8 is conducted. Once the owner or operator of an affected facility has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent tests required under §60.8 until the owner or operator notifies the Administrator, in writing, to the contrary. For the purpose of determining compliance with the opacity standard during a performance test required under §60.8 using COMS data, the minimum total time of COMS data collection shall be averages of all 6-minute continuous periods within the duration of the mass emission performance test. Results of the COMS opacity determinations shall be submitted along with the results of the performance test required under §60.8. The owner or operator of an affected facility using a COMS for compliance purposes is responsible for demonstrating that the COMS meets the requirements specified in §60.13(c) of this part, that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. If COMS data results are submitted for compliance with the opacity standard for a period of time during which Method 9 data indicates noncompliance, the Method 9 data will be used to determine compliance with the opacity standard.
- (6) Upon receipt from an owner or operator of the written reports of the results of the performance tests required by §60.8, the opacity observation results and observer certification required by §60.11(e)(1), and the COMS results, if applicable, the Administrator will make a finding concerning compliance with opacity and other applicable standards. If COMS data results are used to comply with an opacity standard, only those results are required to be submitted along with the performance test results required by §60.8. If the Administrator finds that an affected facility is in compliance with all applicable standards for which performance tests are conducted in accordance with §60.8 of this part but during the time such performance tests are being conducted fails to meet any applicable opacity standard, he shall notify the owner or operator and advise him that he may petition the Administrator within 10 days of receipt of notification to make appropriate adjustment to the opacity standard for the affected facility.
- (7) The Administrator will grant such a petition upon a demonstration by the owner or operator that the affected facility and associated air pollution control equipment was operated and maintained in a manner to minimize the opacity of

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emissions during the performance tests; that the performance tests were performed under the conditions established by the Administrator; and that the affected facility and associated air pollution control equipment were incapable of being adjusted or operated to meet the applicable opacity standard.

- (8) The Administrator will establish an opacity standard for the affected facility meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity standard in the Federal Register.
- (f) Special provisions set forth under an applicable subpart shall supersede any conflicting provisions in paragraphs (a) through (e) of this section.
- (g) For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, nothing in this part shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

[38 FR 28565, Oct. 15, 1973, as amended at 39 FR 39873, Nov. 12, 1974; 43 FR 8800, Mar. 3, 1978; 45 FR 23379, Apr. 4, 1980; 48 FR 48335, Oct. 18, 1983; 50 FR 53113, Dec. 27, 1985; 51 FR 1790, Jan. 15, 1986; 52 FR 9781, Mar. 26, 1987; 62 FR 8328, Feb. 24, 1997; 65 FR 61749, Oct. 17, 2000]

#### § 60.12 Circumvention.

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

[39 FR 9314, Mar. 8, 1974]

#### § 60.13 Monitoring requirements.

- (a) For the purposes of this section, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of this section upon promulgation of performance specifications for continuous monitoring systems under appendix B to this part and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, appendix F to this part, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.
- (b) All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests under §60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.
- (c) If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under §60.11(e)(5), he shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, appendix B, of this part before the performance test required under §60.8 is conducted. Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under §60.8 or within 30 days thereafter in accordance with the applicable performance specification in appendix B of this part. The owner or operator of an affected facility shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator under section 114 of the Act.
- (1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under §60.8 and as described in §60.11(e)(5) shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in paragraph (c) of this section at least 10 days before the performance test required under §60.8 is conducted.
- (2) Except as provided in paragraph (c)(1) of this section, the owner or operator of an affected facility shall furnish the Administrator within 60 days of completion two or, upon request, more copies of a written report of the results of the performance evaluation.
- (d)

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- (1) Owners and operators of a CEMS installed in accordance with the provisions of this part, must check the zero (or low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span must, as a minimum, be adjusted whenever either the 24-hour zero drift or the 24-hour span drift exceeds two times the limit of the applicable performance specification in appendix B of this part. The system must allow the amount of the excess zero and span drift to be recorded and quantified whenever specified. Owners and operators of a COMS installed in accordance with the provisions of this part, must automatically, intrinsic to the opacity monitor, check the zero and upscale (span) calibration drifts at least once daily. For a particular COMS, the acceptable range of zero and upscale calibration materials is as defined in the applicable version of PS-1 in appendix B of this part. For a COMS, the optical surfaces, exposed to the effluent gases, must be cleaned before performing the zero and upscale drift adjustments, except for systems using automatic zero adjustments. The optical surfaces must be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.
- (2) Unless otherwise approved by the Administrator, the following procedures must be followed for a COMS. Minimum procedures must include an automated method for producing a simulated zero opacity condition and an upscale opacity condition using a certified neutral density filter or other related technique to produce a known obstruction of the light beam. Such procedures must provide a system check of all active analyzer internal optics with power or curvature, all active electronic circuitry including the light source and photodetector assembly, and electronic or electro-mechanical systems and hardware and or software used during normal measurement operation.
- (e) Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under paragraph (d) of this section, all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:
  - (1) All continuous monitoring systems referenced by paragraph (c) of this section for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.
  - (2) All continuous monitoring systems referenced by paragraph (c) of this section for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.
- (f) All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of appendix B of this part shall be used.
- (g) When the effluents from a single affected facility or two or more affected facilities subject to the same emission standards are combined before being released to the atmosphere, the owner or operator may install applicable continuous monitoring systems on each effluent or on the combined effluent. When the affected facilities are not subject to the same emission standards, separate continuous monitoring systems shall be installed on each effluent. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install an applicable continuous monitoring system on each separate effluent unless the installation of fewer systems is approved by the Administrator. When more than one continuous monitoring system is used to measure the emissions from one affected facility (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required from each continuous monitoring system.
- (h)
  - (1) Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to 6-minute averages and for continuous monitoring systems other than opacity to 1-hour averages for time periods as defined in §60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period.
  - (2) For continuous monitoring systems other than opacity, 1-hour averages shall be computed as follows, except that the provisions pertaining to the validation of partial operating hours are only applicable for affected facilities that are required by the applicable subpart to include partial hours in the emission calculations:
    - (i) Except as provided under paragraph (h)(2)(iii) of this section, for a full operating hour (any clock hour with 60 minutes of unit operation), at least four valid data points are required to calculate the hourly average, *i.e.*, one data point in each of the 15-minute quadrants of the hour.

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- (ii) Except as provided under paragraph (h)(2)(iii) of this section, for a partial operating hour (any clock hour with less than 60 minutes of unit operation), at least one valid data point in each 15-minute quadrant of the hour in which the unit operates is required to calculate the hourly average.
  - (iii) For any operating hour in which required maintenance or quality-assurance activities are performed:
    - (A) If the unit operates in two or more quadrants of the hour, a minimum of two valid data points, separated by at least 15 minutes, is required to calculate the hourly average; or
    - (B) If the unit operates in only one quadrant of the hour, at least one valid data point is required to calculate the hourly average.
  - (iv) If a daily calibration error check is failed during any operating hour, all data for that hour shall be invalidated, unless a subsequent calibration error test is passed in the same hour and the requirements of paragraph (h)(2)(iii) of this section are met, based solely on valid data recorded after the successful calibration.
  - (v) For each full or partial operating hour, all valid data points shall be used to calculate the hourly average.
  - (vi) Except as provided under paragraph (h)(2)(vii) of this section, data recorded during periods of continuous monitoring system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph.
  - (vii) Owners and operators complying with the requirements of §60.7(f)(1) or (2) must include any data recorded during periods of monitor breakdown or malfunction in the data averages.
  - (viii) When specified in an applicable subpart, hourly averages for certain partial operating hours shall not be computed or included in the emission averages ( e.g. hours with < 30 minutes of unit operation under §60.47b(d)).
  - (ix) Either arithmetic or integrated averaging of all data may be used to calculate the hourly averages. The data may be recorded in reduced or nonreduced form ( e.g. , ppm pollutant and percent O<sub>2</sub> or ng/J of pollutant).
- (3) All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in the applicable subpart. After conversion into units of the standard, the data may be rounded to the same number of significant digits used in the applicable subpart to specify the emission limit.
- (i) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring procedures or requirements of this part including, but not limited to the following:
    - (1) Alternative monitoring requirements when installation of a continuous monitoring system or monitoring device specified by this part would not provide accurate measurements due to liquid water or other interferences caused by substances in the effluent gases.
    - (2) Alternative monitoring requirements when the affected facility is infrequently operated.
    - (3) Alternative monitoring requirements to accommodate continuous monitoring systems that require additional measurements to correct for stack moisture conditions.
    - (4) Alternative locations for installing continuous monitoring systems or monitoring devices when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements.
    - (5) Alternative methods of converting pollutant concentration measurements to units of the standards.
    - (6) Alternative procedures for performing daily checks of zero and span drift that do not involve use of span gases or test cells.
    - (7) Alternatives to the A.S.T.M. test methods or sampling procedures specified by any subpart.
    - (8) Alternative continuous monitoring systems that do not meet the design or performance requirements in Performance Specification 1, appendix B, but adequately demonstrate a definite and consistent relationship between its measurements and the measurements of opacity by a system complying with the requirements in Performance Specification 1. The Administrator may require that such demonstration be performed for each affected facility.

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- (9) Alternative monitoring requirements when the effluent from a single affected facility or the combined effluent from two or more affected facilities is released to the atmosphere through more than one point.
- (j) An alternative to the relative accuracy (RA) test specified in Performance Specification 2 of appendix B may be requested as follows:
- (1) An alternative to the reference method tests for determining RA is available for sources with emission rates demonstrated to be less than 50 percent of the applicable standard. A source owner or operator may petition the Administrator to waive the RA test in Section 8.4 of Performance Specification 2 and substitute the procedures in Section 16.0 if the results of a performance test conducted according to the requirements in §60.8 of this subpart or other tests performed following the criteria in §60.8 demonstrate that the emission rate of the pollutant of interest in the units of the applicable standard is less than 50 percent of the applicable standard. For sources subject to standards expressed as control efficiency levels, a source owner or operator may petition the Administrator to waive the RA test and substitute the procedures in Section 16.0 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the continuous emission monitoring system is used to determine compliance continuously with the applicable standard. The petition to waive the RA test shall include a detailed description of the procedures to be applied. Included shall be location and procedure for conducting the alternative, the concentration or response levels of the alternative RA materials, and the other equipment checks included in the alternative procedure. The Administrator will review the petition for completeness and applicability. The determination to grant a waiver will depend on the intended use of the CEMS data (e.g., data collection purposes other than NSPS) and may require specifications more stringent than in Performance Specification 2 (e.g., the applicable emission limit is more stringent than NSPS).
  - (2) The waiver of a CEMS RA test will be reviewed and may be rescinded at such time, following successful completion of the alternative RA procedure, that the CEMS data indicate that the source emissions are approaching the level. The criterion for reviewing the waiver is the collection of CEMS data showing that emissions have exceeded 70 percent of the applicable standard for seven, consecutive, averaging periods as specified by the applicable regulation(s). For sources subject to standards expressed as control efficiency levels, the criterion for reviewing the waiver is the collection of CEMS data showing that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for seven, consecutive, averaging periods as specified by the applicable regulation(s) [e.g., §60.45(g) (2) and (3), §60.73(e), and §60.84(e)]. It is the responsibility of the source operator to maintain records and determine the level of emissions relative to the criterion on the waiver of RA testing. If this criterion is exceeded, the owner or operator must notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increasing emissions. The Administrator will review the notification and may rescind the waiver and require the owner or operator to conduct a RA test of the CEMS as specified in Section 8.4 of Performance Specification 2.

[40 FR 46255, Oct. 6, 1975; 40 FR 59205, Dec. 22, 1975, as amended at 41 FR 35185, Aug. 20, 1976; 48 FR 13326, Mar. 30, 1983; 48 FR 23610, May 25, 1983; 48 FR 32986, July 20, 1983; 52 FR 9782, Mar. 26, 1987; 52 FR 17555, May 11, 1987; 52 FR 21007, June 4, 1987; 64 FR 7463, Feb. 12, 1999; 65 FR 48920, Aug. 10, 2000; 65 FR 61749, Oct. 17, 2000; 66 FR 44980, Aug. 27, 2001; 71 FR 31102, June 1, 2006; 72 FR 32714, June 13, 2007]

**Editorial Note:** At 65 FR 61749, Oct. 17, 2000, §60.13 was amended by revising the words “ng/J of pollutant” to read “ng of pollutant per J of heat input” in the sixth sentence of paragraph (h). However, the amendment could not be incorporated because the words “ng/J of pollutant” do not exist in the sixth sentence of paragraph (h).

#### § 60.14 Modification.

- (a) Except as provided under paragraphs (e) and (f) of this section, any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.
- (b) Emission rate shall be expressed as kg/hr of any pollutant discharged into the atmosphere for which a standard is applicable. The Administrator shall use the following to determine emission rate:
  - (1) Emission factors as specified in the latest issue of “Compilation of Air Pollutant Emission Factors,” EPA Publication No. AP-42, or other emission factors determined by the Administrator to be superior to AP-42 emission



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factors, in cases where utilization of emission factors demonstrates that the emission level resulting from the physical or operational change will either clearly increase or clearly not increase.

- (2) Material balances, continuous monitor data, or manual emission tests in cases where utilization of emission factors as referenced in paragraph (b)(1) of this section does not demonstrate to the Administrator's satisfaction whether the emission level resulting from the physical or operational change will either clearly increase or clearly not increase, or where an owner or operator demonstrates to the Administrator's satisfaction that there are reasonable grounds to dispute the result obtained by the Administrator utilizing emission factors as referenced in paragraph (b)(1) of this section. When the emission rate is based on results from manual emission tests or continuous monitoring systems, the procedures specified in appendix C of this part shall be used to determine whether an increase in emission rate has occurred. Tests shall be conducted under such conditions as the Administrator shall specify to the owner or operator based on representative performance of the facility. At least three valid test runs must be conducted before and at least three after the physical or operational change. All operating parameters which may affect emissions must be held constant to the maximum feasible degree for all test runs.
- (c) The addition of an affected facility to a stationary source as an expansion to that source or as a replacement for an existing facility shall not by itself bring within the applicability of this part any other facility within that source.
- (d) [Reserved]
- (e) The following shall not, by themselves, be considered modifications under this part:
  - (1) Maintenance, repair, and replacement which the Administrator determines to be routine for a source category, subject to the provisions of paragraph (c) of this section and §60.15.
  - (2) An increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility.
  - (3) An increase in the hours of operation.
  - (4) Use of an alternative fuel or raw material if, prior to the date any standard under this part becomes applicable to that source type, as provided by §60.1, the existing facility was designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if that use could be accomplished under the facility's construction specifications as amended prior to the change. Conversion to coal required for energy considerations, as specified in section 111(a)(8) of the Act, shall not be considered a modification.
  - (5) The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or is replaced by a system which the Administrator determines to be less environmentally beneficial.
  - (6) The relocation or change in ownership of an existing facility.
- (f) Special provisions set forth under an applicable subpart of this part shall supersede any conflicting provisions of this section.
- (g) Within 180 days of the completion of any physical or operational change subject to the control measures specified in paragraph (a) of this section, compliance with all applicable standards must be achieved.
- (h) No physical change, or change in the method of operation, at an existing electric utility steam generating unit shall be treated as a modification for the purposes of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the 5 years prior to the change.
- (i) Repowering projects that are awarded funding from the Department of Energy as permanent clean coal technology demonstration projects (or similar projects funded by EPA) are exempt from the requirements of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the five years prior to the change.
- (j)
  - (1) Repowering projects that qualify for an extension under section 409(b) of the Clean Air Act are exempt from the requirements of this section, provided that such change does not increase the actual hourly emissions of any

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pollutant regulated under this section above the actual hourly emissions achievable at that unit during the 5 years prior to the change.

- (2) This exemption shall not apply to any new unit that:
- (i) Is designated as a replacement for an existing unit;
  - (ii) Qualifies under section 409(b) of the Clean Air Act for an extension of an emission limitation compliance date under section 405 of the Clean Air Act; and
  - (iii) Is located at a different site than the existing unit.
- (k) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project is exempt from the requirements of this section. A *temporary clean coal control technology demonstration project*, for the purposes of this section is a clean coal technology demonstration project that is operated for a period of 5 years or less, and which complies with the State implementation plan for the State in which the project is located and other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.
- (l) The reactivation of a very clean coal-fired electric utility steam generating unit is exempt from the requirements of this section.

[40 FR 58419, Dec. 16, 1975, as amended at 43 FR 34347, Aug. 3, 1978; 45 FR 5617, Jan. 23, 1980; 57 FR 32339, July 21, 1992; 65 FR 61750, Oct. 17, 2000]

#### § 60.15 Reconstruction.

- (a) An existing facility, upon reconstruction, becomes an affected facility, irrespective of any change in emission rate.
- (b) "Reconstruction" means the replacement of components of an existing facility to such an extent that:
- (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and
  - (2) It is technologically and economically feasible to meet the applicable standards set forth in this part.
- (c) "Fixed capital cost" means the capital needed to provide all the depreciable components.
- (d) If an owner or operator of an existing facility proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, he shall notify the Administrator of the proposed replacements. The notice must be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced and must include the following information:
- (1) Name and address of the owner or operator.
  - (2) The location of the existing facility.
  - (3) A brief description of the existing facility and the components which are to be replaced.
  - (4) A description of the existing air pollution control equipment and the proposed air pollution control equipment.
  - (5) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new facility.
  - (6) The estimated life of the existing facility after the replacements.
  - (7) A discussion of any economic or technical limitations the facility may have in complying with the applicable standards of performance after the proposed replacements.
- (e) The Administrator will determine, within 30 days of the receipt of the notice required by paragraph (d) of this section and any additional information he may reasonably require, whether the proposed replacement constitutes reconstruction.
- (f) The Administrator's determination under paragraph (e) shall be based on:
- (1) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new facility;
  - (2) The estimated life of the facility after the replacements compared to the life of a comparable entirely new facility;

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- (3) The extent to which the components being replaced cause or contribute to the emissions from the facility; and
  - (4) Any economic or technical limitations on compliance with applicable standards of performance which are inherent in the proposed replacements.
- (g) Individual subparts of this part may include specific provisions which refine and delimit the concept of reconstruction set forth in this section.

[40 FR 58420, Dec. 16, 1975]

**§ 60.16 Priority list.**

A list of prioritized major source categories may be found at the following EPA web site:

<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&rgn=div6&view=text&node=40:6.0.1.1.1.1&idno=40>

[47 FR 951, Jan. 8, 1982, as amended at 47 FR 31876, July 23, 1982; 51 FR 42796, Nov. 25, 1986; 52 FR 11428, Apr. 8, 1987; 61 FR 9919, Mar. 12, 1996]

**§ 60.17 Incorporations by reference.**

The materials listed below are incorporated by reference in the corresponding sections noted. These incorporations by reference were approved by the Director of the Federal Register on the date listed. These materials are incorporated as they exist on the date of the approval, and a notice of any change in these materials will be published in the Federal Register. The materials are available for purchase at the corresponding address noted below, and all are available for inspection at the Library (C267-01), U.S. EPA, Research Triangle Park, NC or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: [http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

- (a) The following materials are available for purchase from at least one of the following addresses: American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428-2959; or ProQuest, 300 North Zeeb Road, Ann Arbor, MI 48106.
- (1) ASTM A99-76, 82 (Reapproved 1987), Standard Specification for Ferromanganese, incorporation by reference (IBR) approved for §60.261.
  - (2) ASTM A100-69, 74, 93, Standard Specification for Ferrosilicon, IBR approved for §60.261.
  - (3) ASTM A101-73, 93, Standard Specification for Ferrochromium, IBR approved for §60.261.
  - (4) ASTM A482-76, 93, Standard Specification for Ferrochromesilicon, IBR approved for §60.261.
  - (5) ASTM A483-64, 74 (Reapproved 1988), Standard Specification for Silicomanganese, IBR approved for §60.261.
  - (6) ASTM A495-76, 94, Standard Specification for Calcium-Silicon and Calcium Manganese-Silicon, IBR approved for §60.261.
  - (7) ASTM D86-78, 82, 90, 93, 95, 96, Distillation of Petroleum Products, IBR approved for §§60.562-2(d), 60.593(d), 60.593a(d), and 60.633(h).
  - (8) ASTM D129-64, 78, 95, 00, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §§60.106(j)(2), 60.335(b)(10)(i), and Appendix A: Method 19, 12.5.2.2.3.
  - (9) ASTM D129-00 (Reapproved 2005), Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §60.4415(a)(1)(i).
  - (10) ASTM D240-76, 92, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, IBR approved for §§60.46(c), 60.296(b), and Appendix A: Method 19, Section 12.5.2.2.3.
  - (11) ASTM D270-65, 75, Standard Method of Sampling Petroleum and Petroleum Products, IBR approved for Appendix A: Method 19, Section 12.5.2.2.1.
  - (12) ASTM D323-82, 94, Test Method for Vapor Pressure of Petroleum Products (Reid Method), IBR approved for §§60.111(l), 60.111a(g), 60.111b(g), and 60.116b(f)(2)(ii).

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- (13) ASTM D388–77, 90, 91, 95, 98a, 99 (Reapproved 2004)<sup>e1</sup>, Standard Specification for Classification of Coals by Rank, IBR approved for §§60.24(h)(8), 60.41 of subpart D of this part, 60.45(f)(4)(i), 60.45(f)(4)(ii), 60.45(f)(4)(vi), 60.41Da of subpart Da of this part, 60.41b of subpart Db of this part, 60.41c of subpart Dc of this part, and 60.4102.
- (14) ASTM D388–77, 90, 91, 95, 98a, Standard Specification for Classification of Coals by Rank, IBR approved for §§60.251(b) and (c) of subpart Y of this part.
- (15) ASTM D396–78, 89, 90, 92, 96, 98, Standard Specification for Fuel Oils, IBR approved for §§60.41b of subpart Db of this part, 60.41c of subpart Dc of this part, 60.111(b) of subpart K of this part, and 60.111a(b) of subpart Ka of this part.
- (16) ASTM D975–78, 96, 98a, Standard Specification for Diesel Fuel Oils, IBR approved for §§60.111(b) of subpart K of this part and 60.111a(b) of subpart Ka of this part.
- (17) ASTM D1072–80, 90 (Reapproved 1994), Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for §60.335(b)(10)(ii).
- (18) ASTM D1072–90 (Reapproved 1999), Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for §60.4415(a)(1)(ii).
- (19) ASTM D1137–53, 75, Standard Method for Analysis of Natural Gases and Related Types of Gaseous Mixtures by the Mass Spectrometer, IBR approved for §60.45(f)(5)(i).
- (20) ASTM D1193–77, 91, Standard Specification for Reagent Water, IBR approved for Appendix A: Method 5, Section 7.1.3; Method 5E, Section 7.2.1; Method 5F, Section 7.2.1; Method 6, Section 7.1.1; Method 7, Section 7.1.1; Method 7C, Section 7.1.1; Method 7D, Section 7.1.1; Method 10A, Section 7.1.1; Method 11, Section 7.1.3; Method 12, Section 7.1.3; Method 13A, Section 7.1.2; Method 26, Section 7.1.2; Method 26A, Section 7.1.2; and Method 29, Section 7.2.2.
- (21) ASTM D1266–87, 91, 98, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §§60.106(j)(2) and 60.335(b)(10)(i).
- (22) ASTM D1266–98 (Reapproved 2003)<sup>e1</sup>, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §60.4415(a)(1)(i).
- (23) ASTM D1475–60 (Reapproved 1980), 90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for §60.435(d)(1), Appendix A: Method 24, Section 6.1; and Method 24A, Sections 6.5 and 7.1.
- (24) ASTM D1552–83, 95, 01, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §§60.106(j)(2), 60.335(b)(10)(i), and Appendix A: Method 19, Section 12.5.2.2.3.
- (25) ASTM D1552–03, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §60.4415(a)(1)(i).
- (26) ASTM D1826–77, 94, Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, IBR approved for §§60.45(f)(5)(ii), 60.46(c)(2), 60.296(b)(3), and Appendix A: Method 19, Section 12.3.2.4.
- (27) ASTM D1835–87, 91, 97, 03a, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§60.41Da of subpart Da of this part, 60.41b of subpart Db of this part, and 60.41c of subpart Dc of this part.
- (28) ASTM D1945–64, 76, 91, 96, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for §60.45(f)(5)(i).
- (29) ASTM D1946–77, 90 (Reapproved 1994), Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for §§60.18(f)(3), 60.45(f)(5)(i), 60.564(f)(1), 60.614(e)(2)(ii), 60.614(e)(4), 60.664(e)(2)(ii), 60.664(e)(4), 60.704(d)(2)(ii), and 60.704(d)(4).
- (30) ASTM D2013–72, 86, Standard Method of Preparing Coal Samples for Analysis, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.

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- (31) ASTM D2015–77 (Reapproved 1978), 96, Standard Test Method for Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, IBR approved for §60.45(f)(5)(ii), 60.46(c)(2), and Appendix A: Method 19, Section 12.5.2.1.3.
- (32) ASTM D2016–74, 83, Standard Test Methods for Moisture Content of Wood, IBR approved for Appendix A: Method 28, Section 16.1.1.
- (33) ASTM D2234–76, 96, 97b, 98, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for Appendix A: Method 19, Section 12.5.2.1.1.
- (34) ASTM D2369–81, 87, 90, 92, 93, 95, Standard Test Method for Volatile Content of Coatings, IBR approved for Appendix A: Method 24, Section 6.2.
- (35) ASTM D2382–76, 88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for §§60.18(f)(3), 60.485(g)(6), 60.485a(g)(6), 60.564(f)(3), 60.614(e)(4), 60.664(e)(4), and 60.704(d)(4).
- (36) ASTM D2504–67, 77, 88 (Reapproved 1993), Noncondensable Gases in C3 and Lighter Hydrocarbon Products by Gas Chromatography, IBR approved for §§60.485(g)(5) and 60.485a(g)(5).
- (37) ASTM D2584–68 (Reapproved 1985), 94, Standard Test Method for Ignition Loss of Cured Reinforced Resins, IBR approved for §60.685(c)(3)(i).
- (38) ASTM D2597–94 (Reapproved 1999), Standard Test Method for Analysis of Demethanized Hydrocarbon Liquid Mixtures Containing Nitrogen and Carbon Dioxide by Gas Chromatography, IBR approved for §60.335(b)(9)(i).
- (39) ASTM D2622–87, 94, 98, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §§60.106(j)(2) and 60.335(b)(10)(i).
- (40) ASTM D2622–05, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §60.4415(a)(1)(i).
- (41) ASTM D2879–83, 96, 97, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for §§60.111b(f)(3), 60.116b(e)(3)(ii), 60.116b(f)(2)(i), 60.485(e)(1), and 60.485a(e)(1).
- (42) ASTM D2880–78, 96, Standard Specification for Gas Turbine Fuel Oils, IBR approved for §§60.111(b), 60.111a(b), and 60.335(d).
- (43) ASTM D2908–74, 91, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, IBR approved for §60.564(j).
- (44) ASTM D2986–71, 78, 95a, Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Diocetyl Phthalate) Smoke Test, IBR approved for Appendix A: Method 5, Section 7.1.1; Method 12, Section 7.1.1; and Method 13A, Section 7.1.1.2.
- (45) ASTM D3173–73, 87, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.
- (46) ASTM D3176–74, 89, Standard Method for Ultimate Analysis of Coal and Coke, IBR approved for §60.45(f)(5)(i) and Appendix A: Method 19, Section 12.3.2.3.
- (47) ASTM D3177–75, 89, Standard Test Method for Total Sulfur in the Analysis Sample of Coal and Coke, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.
- (48) ASTM D3178–73 (Reapproved 1979), 89, Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coal and Coke, IBR approved for §60.45(f)(5)(i).
- (49) ASTM D3246–81, 92, 96, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for §60.335(b)(10)(ii).
- (50) ASTM D3246–05, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for §60.4415(a)(1)(ii).

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- (51) ASTM D3270-73T, 80, 91, 95, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for Appendix A: Method 13A, Section 16.1.
- (52) ASTM D3286-85, 96, Standard Test Method for Gross Calorific Value of Coal and Coke by the Iso-peribol Bomb Calorimeter, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.
- (53) ASTM D3370-76, 95a, Standard Practices for Sampling Water, IBR approved for §60.564(j).
- (54) ASTM D3792-79, 91, Standard Test Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for Appendix A: Method 24, Section 6.3.
- (55) ASTM D4017-81, 90, 96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for Appendix A: Method 24, Section 6.4.
- (56) ASTM D4057-81, 95, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for Appendix A: Method 19, Section 12.5.2.2.3.
- (57) ASTM D4057-95 (Reapproved 2000), Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for §60.4415(a)(1).
- (58) ASTM D4084-82, 94, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for §60.334(h)(1).
- (59) ASTM D4084-05, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for §§60.4360 and 60.4415(a)(1)(ii).
- (60) ASTM D4177-95, Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, IBR approved for Appendix A: Method 19, Section 12.5.2.2.1.
- (61) ASTM D4177-95 (Reapproved 2000), Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, IBR approved for §60.4415(a)(1).
- (62) ASTM D4239-85, 94, 97, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.
- (63) ASTM D4294-02, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §60.335(b)(10)(i).
- (64) ASTM D4294-03, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §60.4415(a)(1)(i).
- (65) ASTM D4442-84, 92, Standard Test Methods for Direct Moisture Content Measurement in Wood and Wood-base Materials, IBR approved for Appendix A: Method 28, Section 16.1.1.
- (66) ASTM D4444-92, Standard Test Methods for Use and Calibration of Hand-Held Moisture Meters, IBR approved for Appendix A: Method 28, Section 16.1.1.
- (67) ASTM D4457-85 (Reapproved 1991), Test Method for Determination of Dichloromethane and 1, 1, 1-Trichloroethane in Paints and Coatings by Direct Injection into a Gas Chromatograph, IBR approved for Appendix A: Method 24, Section 6.5.
- (68) ASTM D4468-85 (Reapproved 2000), Standard Test Method for Total Sulfur in Gaseous Fuels by Hydrogenolysis and Rateometric Colorimetry, IBR approved for §§60.335(b)(10)(ii) and 60.4415(a)(1)(ii).
- (69) ASTM D4629-02, Standard Test Method for Trace Nitrogen in Liquid Petroleum Hydrocarbons by Syringe/Inlet Oxidative Combustion and Chemiluminescence Detection, IBR approved for §§60.49b(e) and 60.335(b)(9)(i).
- (70) ASTM D4809-95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IBR approved for §§60.18(f)(3), 60.485(g)(6), 60.485a(g)(6), 60.564(f)(3), 60.614(d)(4), 60.664(e)(4), and 60.704(d)(4).
- (71) ASTM D4810-88 (Reapproved 1999), Standard Test Method for Hydrogen Sulfide in Natural Gas Using Length of Stain Detector Tubes, IBR approved for §§60.4360 and 60.4415(a)(1)(ii).
- (72) ASTM D5287-97 (Reapproved 2002), Standard Practice for Automatic Sampling of Gaseous Fuels, IBR approved for §60.4415(a)(1).

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- (73) ASTM D5403–93, Standard Test Methods for Volatile Content of Radiation Curable Materials, IBR approved for Appendix A: Method 24, Section 6.6.
- (74) ASTM D5453–00, Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence, IBR approved for §60.335(b)(10)(i).
- (75) ASTM D5453–05, Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence, IBR approved for §60.4415(a)(1)(i).
- (76) ASTM D5504–01, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence, IBR approved for §§60.334(h)(1) and 60.4360.
- (77) ASTM D5762–02, Standard Test Method for Nitrogen in Petroleum and Petroleum Products by Boat-Inlet Chemiluminescence, IBR approved for §60.335(b)(9)(i).
- (78) ASTM D5865–98, Standard Test Method for Gross Calorific Value of Coal and Coke, IBR approved for §60.45(f)(5)(ii), 60.46(c)(2), and Appendix A: Method 19, Section 12.5.2.1.3.
- (79) ASTM D6216–98, Standard Practice for Opacity Monitor Manufacturers to Certify Conformance with Design and Performance Specifications, IBR approved for Appendix B, Performance Specification 1.
- (80) ASTM D6228–98, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Flame Photometric Detection, IBR approved for §60.334(h)(1).
- (81) ASTM D6228–98 (Reapproved 2003), Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Flame Photometric Detection, IBR approved for §§60.4360 and 60.4415.
- (82) ASTM D6348–03, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, IBR approved for table 7 of Subpart IIII of this part and table 2 of subpart JJJJ of this part.
- (83) ASTM D6366–99, Standard Test Method for Total Trace Nitrogen and Its Derivatives in Liquid Aromatic Hydrocarbons by Oxidative Combustion and Electrochemical Detection, IBR approved for §60.335(b)(9)(i).
- (84) ASTM D6420–99 (Reapproved 2004) Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, IBR approved for table 2 of subpart JJJJ of this part.
- (85) ASTM D6522–00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, IBR approved for §60.335(a).
- (86) ASTM D6522–00 (Reapproved 2005), Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, IBR approved for table 2 of subpart JJJJ of this part.
- (87) ASTM D6667–01, Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence, IBR approved for §60.335(b)(10)(ii).
- (88) ASTM D6667–04, Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence, IBR approved for §60.4415(a)(1)(ii).
- (89) ASTM D6784–02, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), IBR approved for Appendix B to part 60, Performance Specification 12A, Section 8.6.2.
- (90) ASTM E168–67, 77, 92, General Techniques of Infrared Quantitative Analysis, IBR approved for §§60.485a(d)(1), 60.593(b)(2), 60.593a(b)(2), and 60.632(f).
- (91) ASTM E169–63, 77, 93, General Techniques of Ultraviolet Quantitative Analysis, IBR approved for §§60.485a(d)(1), 60.593(b)(2), 60.593a(b)(2), and 60.632(f).
- (92) ASTM E260–73, 91, 96, General Gas Chromatography Procedures, IBR approved for §§60.485a(d)(1), 60.593(b)(2), 60.593a(b)(2), and 60.632(f).

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- (b) The following material is available for purchase from the Association of Official Analytical Chemists, 1111 North 19th Street, Suite 210, Arlington, VA 22209.
- (1) AOAC Method 9, Official Methods of Analysis of the Association of Official Analytical Chemists, 11th edition, 1970, pp. 11–12, IBR approved January 27, 1983 for §§60.204(b)(3), 60.214(b)(3), 60.224(b)(3), 60.234(b)(3).
- (c) The following material is available for purchase from the American Petroleum Institute, 1220 L Street NW., Washington, DC 20005.
- (1) API Publication 2517, Evaporation Loss from External Floating Roof Tanks, Second Edition, February 1980, IBR approved January 27, 1983, for §§60.111(i), 60.111a(f), 60.111a(f)(1) and 60.116b(e)(2)(i).
- (d) The following material is available for purchase from the Technical Association of the Pulp and Paper Industry (TAPPI), Dunwoody Park, Atlanta, GA 30341.
- (1) TAPPI Method T624 os–68, IBR approved January 27, 1983 for §60.285(d)(3).
- (e) The following material is available for purchase from the Water Pollution Control Federation (WPCF), 2626 Pennsylvania Avenue NW., Washington, DC 20037.
- (1) Method 209A, Total Residue Dried at 103–105 °C, in Standard Methods for the Examination of Water and Wastewater, 15th Edition, 1980, IBR approved February 25, 1985 for §60.683(b).
- (f) The following material is available for purchase from the following address: Underwriter's Laboratories, Inc. (UL), 333 Pfingsten Road, Northbrook, IL 60062.
- (1) UL 103, Sixth Edition revised as of September 3, 1986, Standard for Chimneys, Factory-built, Residential Type and Building Heating Appliance.
- (g) The following material is available for purchase from the following address: West Coast Lumber Inspection Bureau, 6980 SW. Barnes Road, Portland, OR 97223.
- (1) West Coast Lumber Standard Grading Rules No. 16, pages 5–21 and 90 and 91, September 3, 1970, revised 1984.
- (h) The following material is available for purchase from the American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016–5990.
- (1) ASME QRO–1–1994, Standard for the Qualification and Certification of Resource Recovery Facility Operators, IBR approved for §§60.56a, 60.54b(a), 60.54b(b), 60.1185(a), 60.1185(c)(2), 60.1675(a), and 60.1675(c)(2).
  - (2) ASME PTC 4.1–1964 (Reaffirmed 1991), Power Test Codes: Test Code for Steam Generating Units (with 1968 and 1969 Addenda), IBR approved for §§60.46b of subpart Db of this part, 60.58a(h)(6)(ii), 60.58b(i)(6)(ii), 60.1320(a)(3) and 60.1810(a)(3).
  - (3) ASME Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th Edition (1971), IBR approved for §§60.58a(h)(6)(ii), 60.58b(i)(6)(ii), 60.1320(a)(4), and 60.1810(a)(4).
  - (4) ANSI/ASME PTC 19.10–1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], IBR approved for Tables 1 and 3 of subpart EEEE, Tables 2 and 4 of subpart FFFF, Table 2 of subpart JJJJ, and §§60.4415(a)(2) and 60.4415(a)(3) of subpart KKKK of this part.
- (i) Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW–846 Third Edition (November 1986), as amended by Updates I (July 1992), II (September 1994), IIA (August, 1993), IIB (January 1995), and III (December 1996). This document may be obtained from the U.S. EPA, Office of Solid Waste and Emergency Response, Waste Characterization Branch, Washington, DC 20460, and is incorporated by reference for appendix A to part 60, Method 29, Sections 7.5.34; 9.2.1; 9.2.3; 10.2; 10.3; 11.1.1; 11.1.3; 13.2.1; 13.2.2; 13.3.1; and Table 29–3.
- (j) “Standard Methods for the Examination of Water and Wastewater,” 16th edition, 1985. Method 303F: “Determination of Mercury by the Cold Vapor Technique.” This document may be obtained from the American Public Health Association, 1015 18th Street, NW., Washington, DC 20036, and is incorporated by reference for appendix A to part 60, Method 29, Sections 9.2.3; 10.3; and 11.1.3.
- (k) This material is available for purchase from the American Hospital Association (AHA) Service, Inc., Post Office Box 92683, Chicago, Illinois 60675–2683. You may inspect a copy at EPA's Air and Radiation Docket and Information Center (Docket A–91–61, Item IV–J–124), Room M–1500, 1200 Pennsylvania Ave., NW., Washington, DC.



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- (1) An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities. American Society for Health Care Environmental Services of the American Hospital Association. Chicago, Illinois. 1993. AHA Catalog No. 057007. ISBN 0-87258-673-5. IBR approved for §60.35e and §60.55c.
- (l) This material is available for purchase from the National Technical Information Services, 5285 Port Royal Road, Springfield, Virginia 22161. You may inspect a copy at EPA's Air and Radiation Docket and Information Center (Docket A-91-61, Item IV-J-125), Room M-1500, 1200 Pennsylvania Ave., NW., Washington, DC.
- (1) OMB Bulletin No. 93-17: Revised Statistical Definitions for Metropolitan Areas. Office of Management and Budget, June 30, 1993. NTIS No. PB 93-192-664. IBR approved for §60.31e.
- (m) This material is available for purchase from at least one of the following addresses: The Gas Processors Association, 6526 East 60th Street, Tulsa, OK, 74145; or Information Handling Services, 15 Inverness Way East, PO Box 1154, Englewood, CO 80150-1154. You may inspect a copy at EPA's Air and Radiation Docket and Information Center, Room B108, 1301 Constitution Ave., NW., Washington, DC 20460.
- (1) Gas Processors Association Method 2377-86, Test for Hydrogen Sulfide and Carbon Dioxide in Natural Gas Using Length of Stain Tubes, IBR approved for §§60.334(h)(1), 60.4360, and 60.4415(a)(1)(ii).
- (2) [Reserved]
- (n) This material is available for purchase from IHS Inc., 15 Inverness Way East, Englewood, CO 80112.
- (1) International Organization for Standards 8178-4: 1996(E), Reciprocating Internal Combustion Engines—Exhaust Emission Measurement—Part 4: Test Cycles for Different Engine Applications, IBR approved for §60.4241(b).
- (2) [Reserved]

[48 FR 3735, Jan. 27, 1983]

**Editorial Note:** For Federal Register citations affecting §60.17, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

### § 60.18 General control device and work practice requirements.

- (a) *Introduction.*
- (1) This section contains requirements for control devices used to comply with applicable subparts of 40 CFR parts 60 and 61. The requirements are placed here for administrative convenience and apply only to facilities covered by subparts referring to this section.
- (2) This section also contains requirements for an alternative work practice used to identify leaking equipment. This alternative work practice is placed here for administrative convenience and is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, Appendix A-7, Method 21 monitor.
- (b) *Flares.* Paragraphs (c) through (f) apply to flares.
- (c)
- (1) Flares shall be designed for and operated with no visible emissions as determined by the methods specified in paragraph (f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
- (2) Flares shall be operated with a flame present at all times, as determined by the methods specified in paragraph (f).
- (3) An owner/operator has the choice of adhering to either the heat content specifications in paragraph (c)(3)(ii) of this section and the maximum tip velocity specifications in paragraph (c)(4) of this section, or adhering to the requirements in paragraph (c)(3)(i) of this section.
- (i)
- (A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume), or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity,  $V_{max}$ , as determined by the following equation:

$$V_{max} = (X_{H_2} - K_1) * K_2$$

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Where:

 $V_{\max}$  = Maximum permitted velocity, m/sec. $K_1$  = Constant, 6.0 volume-percent hydrogen. $K_2$  = Constant, 3.9(m/sec)/volume-percent hydrogen. $X_{H_2}$  = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in §60.17).

(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (f)(4) of this section.

(ii) Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in paragraph (f)(3) of this section.

(4)

(i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4) of this section, less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (c)(4) (ii) and (iii) of this section.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), less than the velocity,  $V_{\max}$ , as determined by the method specified in paragraph (f)(5), and less than 122 m/sec (400 ft/sec) are allowed.(5) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity,  $V_{\max}$ , as determined by the method specified in paragraph (f)(6).

(6) Flares used to comply with this section shall be steam-assisted, air-assisted, or nonassisted.

(d) Owners or operators of flares used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.

(e) Flares used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

(f)

(1) Method 22 of appendix A to this part shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.

(2) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

(3) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

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where:

 $H_T$  = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C;

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$$K = \frac{\text{Constant}}{1.740 \times 10^{-7}} \left( \frac{1}{\text{ppm}} \right) \left( \frac{\text{g mole}}{\text{scm}} \right) \left( \frac{\text{MJ}}{\text{kcal}} \right)$$

where the standard temperature for  $\left( \frac{\text{g mole}}{\text{scm}} \right)$  is 20°C;

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$C_i$  = Concentration of sample component  $i$  in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946–77 or 90 (Reapproved 1994) (Incorporated by reference as specified in §60.17); and

$H_i$  = Net heat of combustion of sample component  $i$ , kcal/g mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382–76 or 88 or D4809–95 (incorporated by reference as specified in §60.17) if published values are not available or cannot be calculated.

- (4) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.
- (5) The maximum permitted velocity,  $V_{\max}$ , for flares complying with paragraph (c)(4)(iii) shall be determined by the following equation.

$$\text{Log}_{10}(V_{\max}) = (H_T + 28.8) / 31.7$$

$V_{\max}$  = Maximum permitted velocity, M/sec

28.8 = Constant

31.7 = Constant

$H_T$  = The net heating value as determined in paragraph (f)(3).

- (6) The maximum permitted velocity,  $V_{\max}$ , for air-assisted flares shall be determined by the following equation.

$$V_{\max} = 8.706 + 0.7084 (H_T)$$

$V_{\max}$  = Maximum permitted velocity, m/sec

8.706 = Constant

0.7084 = Constant

$H_T$  = The net heating value as determined in paragraph (f)(3).

- (g) *Alternative work practice for monitoring equipment for leaks.* Paragraphs (g), (h), and (i) of this section apply to all equipment for which the applicable subpart requires monitoring with a 40 CFR part 60, Appendix A–7, Method 21 monitor, except for closed vent systems, equipment designated as leakless, and equipment identified in the applicable subpart as having no detectable emissions, as indicated by an instrument reading of less than 500 ppm above background. An owner or operator may use an optical gas imaging instrument instead of a 40 CFR part 60, Appendix A–7, Method 21 monitor. Requirements in the existing subparts that are specific to the Method 21 instrument do not apply under this section. All other requirements in the applicable subpart that are not addressed in paragraphs (g), (h), and (i) of this section apply to this standard. For example, equipment specification requirements, and non-Method 21 instrument recordkeeping and reporting requirements in the applicable subpart continue to apply. The terms defined in paragraphs (g)(1) through (5) of this section have meanings that are specific to the alternative work practice standard in paragraphs (g), (h), and (i) of this section.

- (1) *Applicable subpart* means the subpart in 40 CFR parts 60, 61, 63, or 65 that requires monitoring of equipment with a 40 CFR part 60, Appendix A–7, Method 21 monitor.
- (2) *Equipment* means pumps, valves, pressure relief valves, compressors, open-ended lines, flanges, connectors, and other equipment covered by the applicable subpart that require monitoring with a 40 CFR part 60, Appendix A–7, Method 21 monitor.
- (3) *Imaging* means making visible emissions that may otherwise be invisible to the naked eye.

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- (4) *Optical gas imaging instrument* means an instrument that makes visible emissions that may otherwise be invisible to the naked eye.
- (5) *Repair* means that equipment is adjusted, or otherwise altered, in order to eliminate a leak.
- (6) *Leak* means:
- (i) Any emissions imaged by the optical gas instrument;
  - (ii) Indications of liquids dripping;
  - (iii) Indications by a sensor that a seal or barrier fluid system has failed; or
  - (iv) Screening results using a 40 CFR part 60, Appendix A-7, Method 21 monitor that exceed the leak definition in the applicable subpart to which the equipment is subject.
- (h) The alternative work practice standard for monitoring equipment for leaks is available to all subparts in 40 CFR parts 60, 61, 63, and 65 that require monitoring of equipment with a 40 CFR part 60, Appendix A-7, Method 21 monitor.
- (1) An owner or operator of an affected source subject to CFR parts 60, 61, 63, or 65 can choose to comply with the alternative work practice requirements in paragraph (i) of this section instead of using the 40 CFR part 60, Appendix A-7, Method 21 monitor to identify leaking equipment. The owner or operator must document the equipment, process units, and facilities for which the alternative work practice will be used to identify leaks.
  - (2) Any leak detected when following the leak survey procedure in paragraph (i)(3) of this section must be identified for repair as required in the applicable subpart.
  - (3) If the alternative work practice is used to identify leaks, re-screening after an attempted repair of leaking equipment must be conducted using either the alternative work practice or the 40 CFR part 60, Appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart to which the equipment is subject.
  - (4) The schedule for repair is as required in the applicable subpart.
  - (5) When this alternative work practice is used for detecting leaking equipment, choose one of the monitoring frequencies listed in Table 1 to subpart A of this part in lieu of the monitoring frequency specified for regulated equipment in the applicable subpart. Reduced monitoring frequencies for good performance are not applicable when using the alternative work practice.
  - (6) When this alternative work practice is used for detecting leaking equipment the following are not applicable for the equipment being monitored:
    - (i) Skip period leak detection and repair;
    - (ii) Quality improvement plans; or
    - (iii) Complying with standards for allowable percentage of valves and pumps to leak.
  - (7) When the alternative work practice is used to detect leaking equipment, the regulated equipment in paragraph (h)(1)(i) of this section must also be monitored annually using a 40 CFR part 60, Appendix A-7, Method 21 monitor at the leak definition required in the applicable subpart. The owner or operator may choose the specific monitoring period (for example, first quarter) to conduct the annual monitoring. Subsequent monitoring must be conducted every 12 months from the initial period. Owners or operators must keep records of the annual Method 21 screening results, as specified in paragraph (i)(4)(vii) of this section.
- (i) An owner or operator of an affected source who chooses to use the alternative work practice must comply with the requirements of paragraphs (i)(1) through (i)(5) of this section.
- (1) Instrument Specifications. The optical gas imaging instrument must comply with the requirements in (i)(1)(i) and (i)(1)(ii) of this section.
    - (i) Provide the operator with an image of the potential leak points for each piece of equipment at both the detection sensitivity level and within the distance used in the daily instrument check described in paragraph (i)(2) of this section. The detection sensitivity level depends upon the frequency at which leak monitoring is to be performed.
    - (ii) Provide a date and time stamp for video records of every monitoring event.

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- (2) Daily Instrument Check. On a daily basis, and prior to beginning any leak monitoring work, test the optical gas imaging instrument at the mass flow rate determined in paragraph (i)(2)(i) of this section in accordance with the procedure specified in paragraphs (i)(2)(ii) through (i)(2)(iv) of this section for each camera configuration used during monitoring (for example, different lenses used), unless an alternative method to demonstrate daily instrument checks has been approved in accordance with paragraph (i)(2)(v) of this section.
- (i) Calculate the mass flow rate to be used in the daily instrument check by following the procedures in paragraphs (i)(2)(i)(A) and (i)(2)(i)(B) of this section.
- (A) For a specified population of equipment to be imaged by the instrument, determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, within the distance to be used in paragraph (i)(2)(iv)(B) of this section, at or below the standard detection sensitivity level.
- (B) Multiply the standard detection sensitivity level, corresponding to the selected monitoring frequency in Table 1 of subpart A of this part, by the mass fraction of detectable chemicals from the stream identified in paragraph (i)(2)(i)(A) of this section to determine the mass flow rate to be used in the daily instrument check, using the following equation.

$$E_{dic} = (E_{sds}) \sum_{i=1}^k x_i$$

Where:

$E_{dic}$  = Mass flow rate for the daily instrument check, grams per hour

$x_i$  = Mass fraction of detectable chemical(s)  $i$  seen by the optical gas imaging instrument, within the distance to be used in paragraph (i)(2)(iv)(B) of this section, at or below the standard detection sensitivity level,  $E_{sds}$ .

$E_{sds}$  = Standard detection sensitivity level from Table 1 to subpart A, grams per hour

$k$  = Total number of detectable chemicals emitted from the leaking equipment and seen by the optical gas imaging instrument.

- (ii) Start the optical gas imaging instrument according to the manufacturer's instructions, ensuring that all appropriate settings conform to the manufacturer's instructions.
- (iii) Use any gas chosen by the user that can be viewed by the optical gas imaging instrument and that has a purity of no less than 98 percent.
- (iv) Establish a mass flow rate by using the following procedures:
- (A) Provide a source of gas where it will be in the field of view of the optical gas imaging instrument.
- (B) Set up the optical gas imaging instrument at a recorded distance from the outlet or leak orifice of the flow meter that will not be exceeded in the actual performance of the leak survey. Do not exceed the operating parameters of the flow meter.
- (C) Open the valve on the flow meter to set a flow rate that will create a mass emission rate equal to the mass rate specified in paragraph (i)(2)(i) of this section while observing the gas flow through the optical gas imaging instrument viewfinder. When an image of the gas emission is seen through the viewfinder at the required emission rate, make a record of the reading on the flow meter.
- (v) Repeat the procedures specified in paragraphs (i)(2)(ii) through (i)(2)(iv) of this section for each configuration of the optical gas imaging instrument used during the leak survey.
- (vi) To use an alternative method to demonstrate daily instrument checks, apply to the Administrator for approval of the alternative under §60.13(i).
- (3) Leak Survey Procedure. Operate the optical gas imaging instrument to image every regulated piece of equipment selected for this work practice in accordance with the instrument manufacturer's operating parameters. All emissions imaged by the optical gas imaging instrument are considered to be leaks and are subject to repair. All emissions visible to the naked eye are also considered to be leaks and are subject to repair.

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- (4) Recordkeeping. You must keep the records described in paragraphs (i)(4)(i) through (i)(4)(vii) of this section:
- (i) The equipment, processes, and facilities for which the owner or operator chooses to use the alternative work practice.
  - (ii) The detection sensitivity level selected from Table I to subpart A of this part for the optical gas imaging instrument.
  - (iii) The analysis to determine the piece of equipment in contact with the lowest mass fraction of chemicals that are detectable, as specified in paragraph (i)(2)(i)(A) of this section.
  - (iv) The technical basis for the mass fraction of detectable chemicals used in the equation in paragraph (i)(2)(i)(B) of this section.
  - (v) The daily instrument check. Record the distance, per paragraph (i)(2)(iv)(B) of this section, and the flow meter reading, per paragraph (i)(2)(iv)(C) of this section, at which the leak was imaged. Keep a video record of the daily instrument check for each configuration of the optical gas imaging instrument used during the leak survey (for example, the daily instrument check must be conducted for each lens used). The video record must include a time and date stamp for each daily instrument check. The video record must be kept for 5 years.
  - (vi) Recordkeeping requirements in the applicable subpart. A video record must be used to document the leak survey results. The video record must include a time and date stamp for each monitoring event. A video record can be used to meet the recordkeeping requirements of the applicable subparts if each piece of regulated equipment selected for this work practice can be identified in the video record. The video record must be kept for 5 years.
  - (vii) The results of the annual Method 21 screening required in paragraph (h)(7) of this section. Records must be kept for all regulated equipment specified in paragraph (h)(1) of this section. Records must identify the equipment screened, the screening value measured by Method 21, the time and date of the screening, and calibration information required in the existing applicable subpart.
- (5) Reporting. Submit the reports required in the applicable subpart. Submit the records of the annual Method 21 screening required in paragraph (h)(7) of this section to the Administrator via e-mail to [CCG-AWP@EPA.GOV](mailto:CCG-AWP@EPA.GOV).

[51 FR 2701, Jan. 21, 1986, as amended at 63 FR 24444, May 4, 1998; 65 FR 61752, Oct. 17, 2000; 73 FR 78209, Dec. 22, 2008]

**§ 60.19 General notification and reporting requirements.**

- (a) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word “calendar” is absent, unless otherwise specified in an applicable requirement.
- (b) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be delivered or postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery, including the use of electronic media, agreed to by the permitting authority, is acceptable.
- (c) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.
- (d) If an owner or operator of an affected facility in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such facility under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. The allowance in

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the previous sentence applies in each State beginning 1 year after the affected facility is required to be in compliance with the applicable subpart in this part. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

- (e) If an owner or operator supervises one or more stationary sources affected by standards set under this part and standards set under part 61, part 63, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State with an approved permit program) a common schedule on which periodic reports required by each applicable standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the applicable subpart in this part, or 1 year after the stationary source is required to be in compliance with the applicable 40 CFR part 61 or part 63 of this chapter standard, whichever is latest. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.
- (f)
  - (1)
    - (i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (f)(2) and (f)(3) of this section, the owner or operator of an affected facility remains strictly subject to the requirements of this part.
    - (ii) An owner or operator shall request the adjustment provided for in paragraphs (f)(2) and (f)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.
  - (2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.
  - (3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.
  - (4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

[59 FR 12428, Mar. 16, 1994, as amended at 64 FR 7463, Feb. 12, 1998]

**Table 1 to Subpart A to Part 60—Detection Sensitivity Levels (grams per hour)**

Monitoring frequency per subpart <sup>a</sup>	Detection sensitivity level
Bi-Monthly	60
Semi-Quarterly	85
Monthly	100

<sup>a</sup>When this alternative work practice is used to identify leaking equipment, the owner or operator must choose one of the monitoring frequencies listed in this table in lieu of the monitoring frequency specified in the applicable subpart. Bi-monthly means every other month. Semi-quarterly means twice per quarter. Monthly means once per month.

[73 FR 78211, Dec. 22, 2008]

**APPENDIX 40 CFR 60 SUBPART Cb**

(version dated 03/24/2010)

<b>E.U. ID No.</b>	<b>Brief Description</b>
001, 002 & 003	Municipal Waste Combustor Units 1, 2 & 3
100	Ash Building and Handling System (applies to the ash conveying systems)

**Federal Regulations Adopted by Reference**

In accordance with Rule 62-204.800, F.A.C., the following federal regulation in Title 40 of the Code of Federal Regulations (CFR) was adopted by reference. The original federal rule numbering has been retained.

*Federal Revision Date: May 10, 2006*

*State Rule Effective Date: May 31, 2007*

*Standardized Conditions Revision Date: March 24, 2010*

**40 CFR Part 60, Subpart Cb - Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors That are Constructed on or Before September 20, 1994**

**Source:** 60 FR 65415, Dec. 19, 1995, unless otherwise noted.

**Index**

- 40 CFR 60.30b Scope and delegation of authority.
- 40 CFR 60.31b Definitions.
- 40 CFR 60.32b Designated facilities.
- 40 CFR 60.33b Emission guidelines for municipal waste combustor metals, acid gases, organics, and nitrogen oxides.
- 40 CFR 60.34b Emission guidelines for municipal waste combustor operating practices.
- 40 CFR 60.35b Emission guidelines for municipal waste combustor operator training and certification.
- 40 CFR 60.36b Emission guidelines for municipal waste combustor fugitive ash emissions.
- 40 CFR 60.37b Emission guidelines for air curtain incinerators.
- 40 CFR 60.38b Compliance and performance testing.
- 40 CFR 60.39b Reporting and recordkeeping guidelines and compliance schedules.

**End of Index**

**§ 60.30b Scope and delegation of authority.**

- (a) This subpart contains emission guidelines and compliance schedules for the control of certain designated pollutants from certain municipal waste combustors in accordance with section 111(d) and section 129 of the Clean Air Act and subpart B of this part. The provisions in these emission guidelines apply instead of the provisions of §60.24(f) of subpart B of this part.
- (b) The following authorities are retained by EPA:
  - (1) Approval of exemption claims in §60.32b(b)(1), (d), (e), (f)(1), (i)(1);
  - (2) Approval of a nitrogen oxides trading program under §60.33b(d)(2);
  - (3) Approval of major alternatives to test methods;
  - (4) Approval of major alternatives to monitoring;
  - (5) Waiver of recordkeeping; and
  - (6) Performance test and data reduction waivers under §608(b).

[71 FR 27332, May 10, 2006]

**§ 60.31b Definitions.**

Terms used but not defined in this subpart have the meaning given them in the Clean Air Act and subparts A, B, and Eb of this part.

*EPA* means the Administrator of the U.S. EPA or employee of the U.S. EPA who is delegated to perform the specified task.

*Municipal waste combustor plant* means one or more designated facilities (as defined in §60.32b) at the same location.

*Semi-suspension refuse-derived fuel-fired combustor/wet refuse-derived fuel process conversion* means a combustion unit that was converted from a wet refuse-derived fuel process to a dry refuse-derived fuel process, and because of constraints in



the design of the system, includes a low furnace height (less than 60 feet between the grate and the roof) and a high waste capacity-to-undergrate air zone ratio (greater than 300 tons of waste per day (tpd) fuel per each undergrate air zone).

*Spreader stoker fixed floor refuse-derived fuel-fired combustor/100 percent coal capable* means a spreader stoker type combustor with a fixed floor grate design that typically fires 100 percent refuse-derived fuel but is equipped to burn 100 percent coal instead of refuse-derived fuel to fulfill 100 percent steam or energy demand.

[60 FR 65415, Dec. 19, 1995, as amended at 62 FR 45119, 45125, Aug. 25, 1997; 71 FR 27332, May 10, 2006]

**§ 60.32b Designated facilities.**

- (a) The designated facility to which these guidelines apply is each municipal waste combustor unit with a combustion capacity greater than 250 tons per day of municipal solid waste for which construction was commenced on or before September 20, 1994.
- (b) Any municipal waste combustion unit that is capable of combusting more than 250 tons per day of municipal solid waste and is subject to a federally enforceable permit limiting the maximum amount of municipal solid waste that may be combusted in the unit to less than or equal to 11 tons per day is not subject to this subpart if the owner or operator:
  - (1) Notifies EPA of an exemption claim,
  - (2) Provides a copy of the federally enforceable permit that limits the firing of municipal solid waste to less than 11 tons per day, and
  - (3) Keeps records of the amount of municipal solid waste fired on a daily basis.
- (c) Physical or operational changes made to an existing municipal waste combustor unit primarily for the purpose of complying with emission guidelines under this subpart are not considered in determining whether the unit is a modified or reconstructed facility under subpart Ea or subpart Eb of this part.
- (d) A qualifying small power production facility, as defined in section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)), that burns homogeneous waste (such as automotive tires or used oil, but not including refuse-derived fuel) for the production of electric energy is not subject to this subpart if the owner or operator of the facility notifies EPA of this exemption and provides data documenting that the facility qualifies for this exemption.
- (e) A qualifying cogeneration facility, as defined in section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)), that burns homogeneous waste (such as automotive tires or used oil, but not including refuse-derived fuel) for the production of electric energy and steam or forms of useful energy (such as heat) that are used for industrial, commercial, heating, or cooling purposes, is not subject to this subpart if the owner or operator of the facility notifies EPA of this exemption and provides data documenting that the facility qualifies for this exemption.
- (f) Any unit combusting a single-item waste stream of tires is not subject to this subpart if the owner or operator of the unit:
  - (1) Notifies EPA of an exemption claim, and
  - (2) Provides data documenting that the unit qualifies for this exemption.
- (g) Any unit required to have a permit under section 3005 of the Solid Waste Disposal Act is not subject to this subpart.
- (h) Any materials recovery facility (including primary or secondary smelters) that combusts waste for the primary purpose of recovering metals is not subject to this subpart.
- (i) Any co-fired combustor, as defined under §60.51b of subpart Eb of this part, that meets the capacity specifications in paragraph (a) of this section is not subject to this subpart if the owner or operator of the co-fired combustor:
  - (1) Notifies EPA of an exemption claim,
  - (2) Provides a copy of the federally enforceable permit (specified in the definition of co-fired combustor in this section), and
  - (3) Keeps a record on a calendar quarter basis of the weight of municipal solid waste combusted at the co-fired combustor and the weight of all other fuels combusted at the co-fired combustor.
- (j) Air curtain incinerators, as defined under §60.51b of subpart Eb of this part, that meet the capacity specifications in paragraph (a) of this section, and that combust a fuel stream composed of 100 percent yard waste are exempt from all provisions of this subpart except the opacity standard under §60.37b, the testing procedures under §60.38b, and the reporting and recordkeeping provisions under §60.39b.

- (k) Air curtain incinerators that meet the capacity specifications in paragraph (a) of this section and that combust municipal solid waste other than yard waste are subject to all provisions of this subpart.
- (l) Pyrolysis/combustion units that are an integrated part of a plastics/rubber recycling unit (as defined in §60.51b) are not subject to this subpart if the owner or operator of the plastics/rubber recycling unit keeps records of the weight of plastics, rubber, and/or rubber tires processed on a calendar quarter basis; the weight of chemical plant feedstocks and petroleum refinery feedstocks produced and marketed on a calendar quarter basis; and the name and address of the purchaser of the feedstocks. The combustion of gasoline, diesel fuel, jet fuel, fuel oils, residual oil, refinery gas, petroleum coke, liquefied petroleum gas, propane, or butane produced by chemical plants or petroleum refineries that use feedstocks produced by plastics/rubber recycling units are not subject to this subpart.
- (m) Cement kilns firing municipal solid waste are not subject to this subpart.
- (n) Any affected facility meeting the applicability requirements under this section is not subject to subpart E of this part.

[60 FR 65415, Dec. 19, 1995, as amended at 62 FR 45119, 45125, Aug. 25, 1997; 71 FR 27332, May 10, 2006]

**§ 60.33b Emission guidelines for municipal waste combustor metals, acid gases, organics, and nitrogen oxides.**

- (a) The emission limits for municipal waste combustor metals are specified in paragraphs (a)(1) through (a)(3) of this section.
  - (1) For approval, a State plan shall include emission limits for particulate matter and opacity at least as protective as the emission limits for particulate matter and opacity specified in paragraphs (a)(1)(i) through (a)(1)(iii) of this section.
    - (i) Before April 28, 2009, the emission limit for particulate matter contained in the gases discharged to the atmosphere from a designated facility is 27 milligrams per dry standard cubic meter, corrected to 7 percent oxygen. On and after April 28, 2009, the emission limit for particulate matter contained in the gases discharged to the atmosphere from a designated facility is 25 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.
    - (ii) [Reserved]
    - (iii) The emission limit for opacity exhibited by the gases discharged to the atmosphere from a designated facility is 10 percent (6-minute average).
  - (2) For approval, a State plan shall include emission limits for cadmium at least as protective as the emission limits for cadmium specified in paragraphs (a)(2)(i) through (a)(2)(iv) of this section.
    - (i) Before April 28, 2009, the emission limit for cadmium contained in the gases discharged to the atmosphere from a designated facility is 40 micrograms per dry standard cubic meter, corrected to 7 percent oxygen. On and after April 28, 2009, the emission limit for cadmium contained in the gases discharged to the atmosphere from a designated facility is 35 micrograms per dry standard cubic meter, corrected to 7 percent oxygen.
    - (ii) [Reserved]
  - (3) For approval, a State plan shall include emission limits for mercury at least as protective as the emission limits specified in this paragraph. Before April 28, 2009, the emission limit for mercury contained in the gases discharged to the atmosphere from a designated facility is 80 micrograms per dry standard cubic meter or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent. On and after April 28, 2009, the emission limit for mercury contained in the gases discharged to the atmosphere from a designated facility is 50 micrograms per dry standard cubic meter or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent.
  - (4) For approval, a State plan shall include an emission limit for lead at least as protective as the emission limit for lead specified in this paragraph. Before April 28, 2009, the emission limit for lead contained in the gases discharged to the atmosphere from a designated facility is 440 micrograms per dry standard cubic meter, corrected to 7 percent oxygen. On and after April 28, 2009, the emission limit for lead contained in the gases discharged to the atmosphere from a designated facility is 400 micrograms per dry standard cubic meter, corrected to 7 percent oxygen.
- (b) The emission limits for municipal waste combustor acid gases, expressed as sulfur dioxide and hydrogen chloride, are specified in paragraphs (b)(1) and (b)(2) of this section.

- (1) For approval, a State plan shall include emission limits for sulfur dioxide at least as protective as the emission limits for sulfur dioxide specified in paragraphs (b)(1)(i) and (b)(1)(ii) of this section.
  - (i) The emission limit for sulfur dioxide contained in the gases discharged to the atmosphere from a designated facility is 31 parts per million by volume or 25 percent of the potential sulfur dioxide emission concentration (75-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent. Compliance with this emission limit is based on a 24-hour daily geometric mean.
  - (ii) [Reserved]
- (2) For approval, a State plan shall include emission limits for hydrogen chloride at least as protective as the emission limits for hydrogen chloride specified in paragraphs (b)(2)(i) and (b)(2)(ii) of this section.
  - (i) The emission limit for hydrogen chloride contained in the gases discharged to the atmosphere from a designated facility is 31 parts per million by volume or 5 percent of the potential hydrogen chloride emission concentration (95-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent.
  - (ii) [Reserved]
- (3) For approval, a State plan shall be submitted by August 25, 1998 and shall include emission limits for sulfur dioxide and hydrogen chloride at least as protective as the emission limits specified in paragraphs (b)(3)(i) and (b)(3)(ii) of this section.
  - (i) The emission limit for sulfur dioxide contained in the gases discharged to the atmosphere from a designated facility is 29 parts per million by volume or 25 percent of the potential sulfur dioxide emission concentration (75-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent. Compliance with this emission limit is based on a 24-hour daily geometric mean.
  - (ii) The emission limit for hydrogen chloride contained in the gases discharged to the atmosphere from a designated facility is 29 parts per million by volume or 5 percent of the potential hydrogen chloride emission concentration (95-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent.
- (c) The emission limits for municipal waste combustor organics, expressed as total mass dioxin/furan, are specified in paragraphs (c)(1) and (c)(2) of this section.
  - (1) For approval, a State plan shall include an emission limit for dioxin/furan contained in the gases discharged to the atmosphere from a designated facility at least as protective as the emission limit for dioxin/furan specified in paragraphs (c)(1)(i), (c)(1)(ii), and (c)(1)(iii) of this section, as applicable.
    - (i) Before April 28, 2009, the emission limit for designated facilities that employ an electrostatic precipitator-based emission control system is 60 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen.
    - (ii) On and after April 28, 2009, the emission limit for designated facilities that employ an electrostatic precipitator-based emission control system is 35 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen.
    - (iii) The emission limit for designated facilities that do not employ an electrostatic precipitator-based emission control system is 30 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen.
- (d) For approval, a State plan shall include emission limits for nitrogen oxides at least as protective as the emission limits listed in table 1 of this subpart for designated facilities. Table 1 provides emission limits for the nitrogen oxides concentration level for each type of designated facility.
  - (1) A State plan may allow nitrogen oxides emissions averaging as specified in paragraphs (d)(1)(i) through (d)(1)(v) of this section.
    - (i) The owner or operator of a municipal waste combustor plant may elect to implement a nitrogen oxides emissions averaging plan for the designated facilities that are located at that plant and that are subject to subpart Cb, except as specified in paragraphs (d)(1)(i)(A) and (d)(1)(i)(B) of this section.
      - (A) Municipal waste combustor units subject to subpart Ea or Eb cannot be included in the emissions averaging plan.

- (B) Mass burn refractory municipal waste combustor units and other municipal waste combustor technologies not listed in paragraph (d)(1)(iii) of this section may not be included in the emissions averaging plan.
- (ii) The designated facilities included in the nitrogen oxides emissions averaging plan must be identified in the initial compliance report specified in §60.59b(f) or in the annual report specified in §60.59b(g), as applicable, prior to implementing the averaging plan. The designated facilities being included in the averaging plan may be redesignated each calendar year. Partial year redesignation is allowable with State approval.
- (iii) To implement the emissions averaging plan, the average daily (24-hour) nitrogen oxides emission concentration level for gases discharged from the designated facilities being included in the emissions averaging plan must be no greater than the levels specified in table 2 of this subpart. Table 2 provides emission limits for the nitrogen oxides concentration level for each type of designated facility.
- (iv) Under the emissions averaging plan, the average daily nitrogen oxides emissions specified in paragraph (d)(1)(iii) of this section shall be calculated using equation (1). Designated facilities that are offline shall not be included in calculating the average daily nitrogen oxides emission level.

$$NO_{x24-hr} = \frac{\sum_{i=1}^h (NO_{x_i})(S_i)}{\sum_{i=1}^h (S_i)} \quad (1)$$

where:

NOX24-hr = 24-hr daily average nitrogen oxides emission concentration level for the emissions averaging plan (parts per million by volume corrected to 7 percent oxygen).

NOXi-hr = 24-hr daily average nitrogen oxides emission concentration level for designated facility i (parts per million by volume, corrected to 7 percent oxygen), calculated according to the procedures in §60.58b(h) of this subpart.

S<sub>i</sub> = maximum demonstrated municipal waste combustor unit load for designated facility i (pounds per hour steam or feedwater flow as determined in the most recent dioxin/furan performance test).

h = total number of designated facilities being included in the daily emissions average.

- (v) For any day in which any designated facility included in the emissions averaging plan is offline, the owner or operator of the municipal waste combustor plant must demonstrate compliance according to either paragraph (d)(1)(v)(A) of this section or both paragraphs (d)(1)(v)(B) and (d)(1)(v)(C) of this section.
  - (A) Compliance with the applicable limits specified in table 2 of this subpart shall be demonstrated using the averaging procedure specified in paragraph (d)(1)(iv) of this section for the designated facilities that are online.
  - (B) For each of the designated facilities included in the emissions averaging plan, the nitrogen oxides emissions on a daily average basis shall be calculated and shall be equal to or less than the maximum daily nitrogen oxides emission level achieved by that designated facility on any of the days during which the emissions averaging plan was achieved with all designated facilities online during the most recent calendar quarter. The requirements of this paragraph do not apply during the first quarter of operation under the emissions averaging plan.
  - (C) The average nitrogen oxides emissions (kilograms per day) calculated according to paragraph (d)(1)(v)(C)(2) of this section shall not exceed the average nitrogen oxides emissions (kilograms per day) calculated according to paragraph (d)(1)(v)(C)(1) of this section.
    - (1) For all days during which the emissions averaging plan was implemented and achieved and during which all designated facilities were online, the average nitrogen oxides emissions shall be calculated. The average nitrogen oxides emissions (kilograms per day) shall be calculated on a calendar year basis according to paragraphs (d)(1)(v)(C)(1)(i) through (d)(1)(v)(C)(1)(iii) of this section.
      - (i) For each designated facility included in the emissions averaging plan, the daily amount of nitrogen oxides emitted (kilograms per day) shall be calculated based on the hourly nitrogen oxides data required under §60.38b(a) and specified under §60.58b(h)(5) of subpart Eb of this part, the flue

- gas flow rate determined using table 19-1 of EPA Reference Method 19 or a State-approved method, and the hourly average steam or feedwater flow rate.
- (ii) The daily total nitrogen oxides emissions shall be calculated as the sum of the daily nitrogen oxides emissions from each designated facility calculated under paragraph (d)(1)(v)(C)(1)(i) of this section.
- (iii) The average nitrogen oxides emissions (kilograms per day) on a calendar year basis shall be calculated as the sum of all daily total nitrogen oxides emissions calculated under paragraph (d)(1)(v)(C)(1)(ii) of this section divided by the number of calendar days for which a daily total was calculated.
- (2) For all days during which one or more of the designated facilities under the emissions averaging plan was offline, the average nitrogen oxides emissions shall be calculated. The average nitrogen oxides emissions (kilograms per day) shall be calculated on a calendar year basis according to paragraphs (d)(1)(v)(C)(2)(i) through (d)(1)(v)(C)(2)(iii) of this section.
- (i) For each designated facility included in the emissions averaging plan, the daily amount of nitrogen oxides emitted (kilograms per day) shall be calculated based on the hourly nitrogen oxides data required under §60.38b(a) and specified under §60.58b(h)(5) of subpart Eb of this part, the flue gas flow rate determined using table 19-1 of EPA Reference Method 19 or a State-approved method, and the hourly average steam or feedwater flow rate.
- (ii) The daily total nitrogen oxides emissions shall be calculated as the sum of the daily nitrogen oxides emissions from each designated facility calculated under paragraph (d)(1)(v)(C)(2)(i) of this section.
- (iii) The average nitrogen oxides emissions (kilograms per day) on a calendar year basis shall be calculated as the sum of all daily total nitrogen oxides emissions calculated under paragraph (d)(1)(v)(C)(2)(ii) of this section divided by the number of calendar days for which a daily total was calculated.
- (2) A State plan may establish a program to allow owners or operators of municipal waste combustor plants to engage in trading of nitrogen oxides emission credits. A trading program must be approved by EPA before implementation.
- (3) For approval, a State plan shall include emission limits for nitrogen oxides from fluidized bed combustors at least as protective as the emission limits listed in paragraphs (d)(3)(i) and (d)(3)(ii) of this section.
- (i) The emission limit for nitrogen oxides contained in the gases discharged to the atmosphere from a designated facility that is a fluidized bed combustor is 180 parts per million by volume, corrected to 7 percent oxygen.
- (ii) If a State plan allows nitrogen oxides emissions averaging as specified in paragraphs (d)(1)(i) through (d)(1)(v) of this section, the emission limit for nitrogen oxides contained in the gases discharged to the atmosphere from a designated facility that is a fluidized bed combustor is 165 parts per million by volume, corrected to 7 percent oxygen.

[60 FR 65415, Dec. 19, 1995, as amended at 62 FR 45119, 45125, Aug. 25, 1997; 71 FR 27333, May 10, 2006]

**§ 60.34b Emission guidelines for municipal waste combustor operating practices.**

- (a) For approval, a State plan shall include emission limits for carbon monoxide at least as protective as the emission limits for carbon monoxide listed in table 3 of this subpart. Table 3 provides emission limits for the carbon monoxide concentration level for each type of designated facility.
- (b) For approval, a State plan shall include requirements for municipal waste combustor operating practices at least as protective as those requirements listed in §60.53b(b) and (c) of subpart Eb of this part.

[60 FR 65415, Dec. 19, 1995, as amended at 62 FR 45120, 45125, Aug. 25, 1997; 69 FR 42121, July 14, 2004; 71 FR 27333, May 10, 2006]

**§ 60.35b Emission guidelines for municipal waste combustor operator training and certification.**

For approval, a State plan shall include requirements for designated facilities for municipal waste combustor operator training and certification at least as protective as those requirements listed in §60.54b of subpart Eb of this part. The State plan shall require compliance with these requirements according to the schedule specified in §60.39b(c)(4).

[60 FR 65415, Dec. 19, 1995, as amended at 62 FR 45120, Aug. 25, 1997]

**§ 60.36b Emission guidelines for municipal waste combustor fugitive ash emissions.**

For approval, a State plan shall include requirements for municipal waste combustor fugitive ash emissions at least as protective as those requirements listed in §60.55b of subpart Eb of this part.

**§ 60.37b Emission guidelines for air curtain incinerators.**

For approval, a State plan shall include emission limits for opacity for air curtain incinerators at least as protective as those listed in §60.56b of subpart Eb of this part.

**§ 60.38b Compliance and performance testing.**

- (a) For approval, a State plan shall include the performance testing methods listed in §60.58b of subpart Eb of this part, as applicable, except as provided for under §60.24(b)(2) of subpart B of this part and paragraphs (b) and (c) of this section.
- (b) For approval, a State plan shall include for designated facilities the alternative performance testing schedule for dioxins/furans specified in §60.58b(g)(5)(iii) of subpart Eb of this part, as applicable, for those designated facilities that achieve a dioxin/furan emission level less than or equal to 15 nanograms per dry standard cubic meter total mass, corrected to 7 percent oxygen.
- (c) [Reserved]

[60 FR 65415, Dec. 19, 1995, as amended at 62 FR 45120, Aug. 25, 1997]

**§ 60.39b Reporting and recordkeeping guidelines and compliance schedules.**

- (a) For approval, a State plan shall include the reporting and recordkeeping provisions listed in §60.59b of subpart Eb of this part, as applicable, except for the siting requirements under §60.59b(a), (b)(5), and (d)(11) of subpart Eb of this part.
- (b) Except as provided in paragraph (e) of this section, not later than December 19, 1996, each State in which a designated facility is located shall submit to EPA a plan to implement and enforce all provisions of this subpart except the revised April 28, 2009 emission limits in §60.33b(a), (c), and (d). Not later than April 28, 2007, each State in which a designated facility is located shall submit to EPA a plan to implement and enforce all provisions of this subpart, as amended on May 10, 2006. The submittal schedule specified in this paragraph is in accordance with section 129(b)(2) of the Clean Air Act and applies instead of the schedule provided in §60.23(a)(1) of subpart B of this part.
- (c) For approval, a State plan that is submitted prior to May 10, 2006 shall include the compliance schedules specified in paragraphs (c)(1) through (c)(5) of this section.
  - (1) A State plan shall allow designated facilities to comply with all requirements of a State plan (or close) within 1 year after approval of the State plan, except as provided by paragraph (c)(1)(i) and (c)(1)(ii) of this section.
    - (i) A State plan that allows designated facilities more than 1 year but less than 3 years following the date of issuance of a revised construction or operation permit, if a permit modification is required, or more than 1 year but less than 3 years following approval of the State plan, if a permit modification is not required, shall include measurable and enforceable incremental steps of progress toward compliance. Suggested measurable and enforceable activities are specified in paragraphs (c)(1)(i)(A) through (c)(1)(i)(J) of this section.
      - (A) Date for obtaining services of an architectural and engineering firm regarding the air pollution control device(s);
      - (B) Date for obtaining design drawings of the air pollution control device(s);
      - (C) Date for submittal of permit modifications, if necessary;
      - (D) Date for submittal of the final control plan to the Administrator. [§60.21 (h)(1) of subpart B of this part.];
      - (E) Date for ordering the air pollution control device(s);
      - (F) Date for obtaining the major components of the air pollution control device(s);
      - (G) Date for initiation of site preparation for installation of the air pollution control device(s);
      - (H) Date for initiation of installation of the air pollution control device(s);
      - (I) Date for initial startup of the air pollution control device(s); and

- (J) Date for initial performance test(s) of the air pollution control device(s).
- (ii) A State plan that allows designated facilities more than 1 year but up to 3 years after State plan approval to close shall require a closure agreement. The closure agreement must include the date of plant closure.
- (2) If the State plan requirements for a designated facility include a compliance schedule longer than 1 year after approval of the State plan in accordance with paragraph (c)(1)(i) or (c)(1)(ii) of this section, the State plan submittal (for approval) shall include performance test results for dioxin/furan emissions for each designated facility that has a compliance schedule longer than 1 year following the approval of the State plan, and the performance test results shall have been conducted during or after 1990. The performance test shall be conducted according to the procedures in §60.38b.
- (3) [Reserved]
- (4) A State plan shall require compliance with the municipal waste combustor operator training and certification requirements under §60.35b according to the schedule specified in paragraphs (c)(4)(i) through (c)(4)(iii) of this section.
- (i) [Reserved]
- (ii) For designated facilities, the State plan shall require compliance with the municipal waste combustor operator training and certification requirements specified under §60.54b (a) through (c) of subpart Eb of this part by the date 6 months after the date of startup or 12 months after State plan approval, whichever is later.
- (iii) For designated facilities, the State plan shall require compliance with the requirements specified in §60.54b (d), (f), and (g) of subpart Eb of this part no later than 6 months after startup or 12 months after State plan approval, whichever is later.
- (A) The requirement specified in §60.54b(d) of subpart Eb of this part does not apply to chief facility operators, shift supervisors, and control room operators who have obtained full certification from the American Society of Mechanical Engineers on or before the date of State plan approval.
- (B) The owner or operator of a designated facility may request that the Administrator waive the requirement specified in §60.54b(d) of subpart Eb of this part for chief facility operators, shift supervisors, and control room operators who have obtained provisional certification from the American Society of Mechanical Engineers on or before the initial date of State plan approval.
- (C) The initial training requirements specified in §60.54b(f)(1) of subpart Eb of this part shall be completed no later than the date specified in paragraph (c)(4)(iii)(C)( 1 ), (c)(4)(iii)(C)( 2 ), or (c)(4)(iii)(C)( 3 ), of this section whichever is later.
- ( 1 ) The date 6 months after the date of startup of the affected facility;
- ( 2 ) Twelve months after State plan approval; or
- ( 3 ) The date prior to the day when the person assumes responsibilities affecting municipal waste combustor unit operation.
- (5) A State plan shall require all designated facilities for which construction, modification, or reconstruction is commenced after June 26, 1987 to comply with the emission limit for mercury specified in §60.33b(a)(3) and the emission limit for dioxins/furans specified in §60.33b(c)(1) within 1 year following issuance of a revised construction or operation permit, if a permit modification is required, or within 1 year following approval of the State plan, whichever is later.
- (d) In the event no plan for implementing the emission guidelines is approved by EPA, all designated facilities meeting the applicability requirements under §60.32b shall be in compliance with all of the guidelines, except those specified under §60.33b (a)(4), (b)(3), and (d)(3), no later than December 19, 2000.
- (e) Not later than August 25, 1998, each State in which a designated facility is operating shall submit to EPA a plan to implement and enforce all provisions of this subpart specified in §60.33b(b)(3) and (d)(3) and the emission limit in paragraph (a)(4) that applies before April 28, 2009.
- (f) In the event no plan for implementing the emission guidelines is approved by EPA, all designated facilities meeting the applicability requirements under §60.32b shall be in compliance with all of the guidelines, including those specified under §60.33b (a)(4), (b)(3), and (d)(3), no later than August 26, 2002.

- (g) For approval, a revised State plan submitted not later than April 28, 2007 in accordance with paragraph (b) of this section, shall include compliance schedules for meeting the revised April 28, 2009 emission limits in §60.33b(a), (c), and (d) and the revised testing provisions in §60.38b(b).
- (1) Compliance with the revised April 28, 2009 emission limits is required as expeditiously as practicable, but no later than April 28, 2009, except as provided in paragraph (g)(2) of this section.
  - (2) The owner or operator of an affected facility who is planning an extensive emission control system upgrade may petition the Administrator for a longer compliance schedule and must demonstrate to the satisfaction of the Administrator the need for the additional time. If approved, the schedule may exceed the schedule in paragraph (g)(1) of this section, but cannot exceed May 10, 2011.
- (h) In the event no plan for implementing the emission guidelines is approved by EPA, all designated facilities meeting the applicability requirements under §60.32b shall be in compliance with all of the guidelines, including the revised April 28, 2009 emission limits in §60.33b(a), (b), (c), (d), and §60.34b(a), and the revised testing provisions in §60.38b(b), no later than May 10, 2011.

[60 FR 65415, Dec. 19, 1995, as amended at 62 FR 45120, 45125, Aug. 25, 1997; 71 FR 27333, May 10, 2006]



**Table 1 to Subpart Cb of Part 60—Nitrogen Oxides Guidelines for Designated Facilities**

<b>Municipal waste combustor technology</b>	<b>Before April 28, 2009, nitrogen oxides emission limit (parts per million by volume)<sup>a</sup></b>	<b>On and after April 28, 2009, nitrogen oxides emission limit (parts per million by volume)<sup>a</sup></b>
Mass burn waterwall	205	205.
Mass burn rotary waterwall	250	210.
Refuse-derived fuel combustor	250	250.
Fluidized bed combustor	180	180.
Mass burn refractory combustors	No limit	No limit.

<sup>a</sup>Corrected to 7 percent oxygen, dry basis.

[71 FR 27334, May 10, 2006]

**Table 2 to Subpart Cb of Part 60—Nitrogen Oxides Limits for Existing Designated Facilities Included in an Emissions Averaging Plan at a Municipal Waste Combustor Plant<sup>b</sup>**

<b>Municipal waste combustor technology</b>	<b>Before April 28, 2009, nitrogen oxides emission limit (parts per million by volume)<sup>b</sup></b>	<b>On and after April 28, 2009, nitrogen oxides emission limit (parts per million by volume)<sup>a</sup></b>
Mass burn waterwall	185	185
Mass burn rotary waterwall	220	190
Refuse-derived fuel combustor	230	230
Fluidized bed combustor	165	165

<sup>a</sup>Mass burn refractory municipal waste combustors and other MWC technologies not listed above may not be included in an emissions averaging plan.

<sup>b</sup>Corrected to 7 percent oxygen, dry basis.

[71 FR 27334, May 10, 2006]

Table 3 to Subpart Cb of Part 60—Municipal Waste Combustor Operating Guidelines

Municipal waste combustor technology	Carbon monoxide emissions levels (parts per million by volume) <sup>a</sup>	Averaging time (hrs) <sup>b</sup>
Mass burn waterwall	100	4
Mass burn refractory	100	4
Mass burn rotary refractory	100	24
Mass burn rotary waterwall	250	24
Modular starved air	50	4
Modular excess air	50	4
Refuse-derived fuel stoker	200	24
Fluidized bed, mixed fuel (wood/refuse-derived fuel)	200	<sup>c</sup> 24
Bubbling fluidized bed combustor	100	4
Circulating fluidized bed combustor	100	4
Pulverized coal/refuse-derived fuel mixed fuel-fired combustor	150	4
Spreader stoker coal/refuse-derived fuel mixed fuel-fired combustor	200	24
Semi-suspension refuse-derived fuel-fired combustor/wet refuse-derived fuel process conversion	250	<sup>c</sup> 24
Spreader stoker fixed floor refuse-derived fuel-fired combustor/100 percent coal capable	250	<sup>c</sup> 24

<sup>a</sup>Measured at the combustor outlet in conjunction with a measurement of oxygen concentration, corrected to 7 percent oxygen, dry basis. Calculated as an arithmetic average.

<sup>b</sup>Averaging times are 4-hour or 24-hour block averages.

<sup>c</sup>24-hour block average, geometric mean.

[71 FR 27334, May 10, 2006]

**APPENDIX 40 CFR 60 SUBPART Eb**

**STANDARDS OF PERFORMANCE FOR LARGE MUNICIPAL WASTE COMBUSTORS**

(version dated 04/21/2008)

<b>E.U. ID No.</b>	<b>Brief Description</b>
107	Municipal Waste Combustor Unit 4
112	Ash Handling System (applies to the ash conveying systems)

**Federal Regulations Adopted by Reference**

In accordance with Rule 62-204.800, F.A.C., the following federal regulation in Title 40 of the Code of Federal Regulations (CFR) was adopted by reference. The original federal rule numbering has been retained.

*Federal Revision Date: May 10, 2006*

*Rule Effective Date: May 31, 2007*

*Standardized Conditions Revision Date: April 21, 2008*

**40 CFR Part 60, Subpart Eb - Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994 or for Which Modification or Reconstruction is Commenced After June 19, 1996**

Source: 60 FR 65419, Dec. 19, 1995, unless otherwise noted.

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- 40 CFR 60.50b Applicability and delegation of authority.
- 40 CFR 60.51b Definitions.
- 40 CFR 60.52b Standards for municipal waste combustor metals, acid gases, organics, and nitrogen oxides.
- 40 CFR 60.53b Standards for municipal waste combustor operating practices.
- 40 CFR 60.54b Standards for municipal waste combustor operator training and certification.
- 40 CFR 60.55b Standards for municipal waste combustor fugitive ash emissions.
- 40 CFR 60.56b Standards for air curtain incinerators.
- 40 CFR 60.57b Siting requirements.
- 40 CFR 60.58b Compliance and performance testing.
- 40 CFR 60.59b Reporting and recordkeeping requirements.
- 40 CFR 60.19 General notification and reporting requirements.

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**§ 60.50b Applicability and delegation of authority.**

- (a) The affected facility to which this subpart applies is each municipal waste combustor unit with a combustion capacity greater than 250 tons per day of municipal solid waste for which construction, modification, or reconstruction is commenced after September 20, 1994.
- (b) Any waste combustion unit that is capable of combusting more than 250 tons per day of municipal solid waste and is subject to a federally enforceable permit limiting the maximum amount of municipal solid waste that may be combusted in the unit to less than or equal to 11 tons per day is not subject to this subpart if the owner or operator:
  - (1) Notifies EPA of an exemption claim;
  - (2) Provides a copy of the federally enforceable permit that limits the firing of municipal solid waste to less than 11 tons per day; and
  - (3) Keeps records of the amount of municipal solid waste fired on a daily basis.
- (c) An affected facility to which this subpart applies is not subject to subpart E or Ea of this part.
- (d) Physical or operational changes made to an existing municipal waste combustor unit primarily for the purpose of complying with emission guidelines under subpart Cb are not considered a modification or reconstruction and do not result in an existing municipal waste combustor unit becoming subject to this subpart.
- (e) A qualifying small power production facility, as defined in section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)), that burns homogeneous waste (such as automotive tires or used oil, but not including refuse-derived fuel) for the production of electric energy is not subject to this subpart if the owner or operator of the facility notifies EPA of this exemption and provides data documenting that the facility qualifies for this exemption.

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- (f) A qualifying cogeneration facility, as defined in section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)), that burns homogeneous waste (such as automotive tires or used oil, but not including refuse-derived fuel) for the production of electric energy and steam or forms of useful energy (such as heat) that are used for industrial, commercial, heating, or cooling purposes, is not subject to this subpart if the owner or operator of the facility notifies EPA of this exemption and provides data documenting that the facility qualifies for this exemption.
- (g) Any unit combusting a single-item waste stream of tires is not subject to this subpart if the owner or operator of the unit:
  - (1) Notifies EPA of an exemption claim; and
  - (2) [Reserved]
  - (3) Provides data documenting that the unit qualifies for this exemption.
- (h) Any unit required to have a permit under section 3005 of the Solid Waste Disposal Act is not subject to this subpart.
- (i) Any materials recovery facility (including primary or secondary smelters) that combusts waste for the primary purpose of recovering metals is not subject to this subpart.
- (j) Any cofired combustor, as defined under §60.51b, that meets the capacity specifications in paragraph (a) of this section is not subject to this subpart if the owner or operator of the cofired combustor:
  - (1) Notifies EPA of an exemption claim;
  - (2) Provides a copy of the federally enforceable permit (specified in the definition of cofired combustor in this section); and
  - (3) Keeps a record on a calendar quarter basis of the weight of municipal solid waste combusted at the cofired combustor and the weight of all other fuels combusted at the cofired combustor.
- (k) Air curtain incinerators, as defined under §60.51b, located at a plant that meet the capacity specifications in paragraph (a) of this section and that combust a fuel stream composed of 100 percent yard waste are exempt from all provisions of this subpart except the opacity limit under §60.56b, the testing procedures under §60.58b(l), and the reporting and recordkeeping provisions under §60.59b (e) and (i).
- (l) Air curtain incinerators located at plants that meet the capacity specifications in paragraph (a) of this section combusting municipal solid waste other than yard waste are subject to all provisions of this subpart.
- (m) Pyrolysis/combustion units that are an integrated part of a plastics/rubber recycling unit (as defined in §60.51b) are not subject to this subpart if the owner or operator of the plastics/rubber recycling unit keeps records of the weight of plastics, rubber, and/or rubber tires processed on a calendar quarter basis; the weight of chemical plant feedstocks and petroleum refinery feedstocks produced and marketed on a calendar quarter basis; and the name and address of the purchaser of the feedstocks. The combustion of gasoline, diesel fuel, jet fuel, fuel oils, residual oil, refinery gas, petroleum coke, liquified petroleum gas, propane, or butane produced by chemical plants or petroleum refineries that use feedstocks produced by plastics/rubber recycling units are not subject to this subpart.
- (n) The following authorities are retained by the Administrator of the U.S. EPA and are not transferred to a State:
  - (1) Approval of exemption claims in paragraphs (b), (e), (f), (g) and (j) of this section;
  - (2) Enforceability under Federal law of all Federally enforceable, as defined in §60.51b, limitations and conditions;
  - (3) Determination of compliance with the siting requirements as specified in §60.57b(a);
  - (4) Acceptance of relationship between carbon monoxide and oxygen as part of initial and annual performance tests as specified in §60.58b(b)(7);
  - (5) Approval of other monitoring systems used to obtain emissions data when data is not obtained by CEMS as specified in §60.58b(e)(14), (h)(12), (i)(11), and (n)(14), and (p)(11);
  - (6) Approval of a site-specific monitoring plan for the continuous emission monitoring system specified in “60.58b(n)(13) and (o) of this section or the continuous automated sampling system specified in §60.58b(p)(10) and (q) of this section;

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- (7) Approval of major alternatives to test methods;
- (8) Approval of major alternatives to monitoring;
- (9) Waiver of recordkeeping; and
- (10) Performance test and data reduction waivers under "608(b).

(o) This subpart shall become effective June 19, 1996.

(p) Cement kilns firing municipal solid waste are not subject to this subpart.

[60 FR 65419, Dec. 19, 1995, as amended at 62 FR 45120, 45125, Aug. 25, 1997; 71 FR 27335, May 10, 2006]

**§ 60.51b Definitions.**

*Administrator means:*

- (1) For approved and effective State Section 111(d)/129 plans, the Director of the State air pollution control agency, or employee of the State air pollution control agency that is delegated the authority to perform the specified task;
- (2) For Federal Section 111(d)/129 plans, the Administrator of the EPA, an employee of the EPA, the Director of the State air pollution control agency, or employee of the State air pollution control agency to whom the authority has been delegated by the Administrator of the EPA to perform the specified task; and
- (3) For NSPS, the Administrator of the EPA, an employee of the EPA, the Director of the State air pollution control agency, or employee of the State air pollution control agency to whom the authority has been delegated by the Administrator of the EPA to perform the specified task.

*Air curtain incinerator* means an incinerator that operates by forcefully projecting a curtain of air across an open chamber or pit in which burning occurs. Incinerators of this type can be constructed above or below ground and with or without refractory walls and floor.

*Batch municipal waste combustor* means a municipal waste combustor unit designed so that it cannot combust municipal solid waste continuously 24 hours per day because the design does not allow waste to be fed to the unit or ash to be removed while combustion is occurring.

*Bubbling fluidized bed combustor* means a fluidized bed combustor in which the majority of the bed material remains in a fluidized state in the primary combustion zone.

*Calendar quarter* means a consecutive 3-month period (nonoverlapping) beginning on January 1, April 1, July 1, and October 1.

*Calendar year* means the period including 365 days starting January 1 and ending on December 31.

*Chief facility operator* means the person in direct charge and control of the operation of a municipal waste combustor and who is responsible for daily onsite supervision, technical direction, management, and overall performance of the facility.

*Circulating fluidized bed combustor* means a fluidized bed combustor in which the majority of the fluidized bed material is carried out of the primary combustion zone and is transported back to the primary zone through a recirculation loop.

*Clean wood* means untreated wood or untreated wood products including clean untreated lumber, tree stumps (whole or chipped), and tree limbs (whole or chipped). Clean wood does not include yard waste, which is defined elsewhere in this section, or construction, renovation, and demolition wastes (including but not limited to railroad ties and telephone poles), which are exempt from the definition of municipal solid waste in this section.

*Cofired combustor* means a unit combusting municipal solid waste with nonmunicipal solid waste fuel (e.g., coal, industrial process waste) and subject to a federally enforceable permit limiting the unit to combusting a fuel feed stream, 30 percent or less of the weight of which is comprised, in aggregate, of municipal solid waste as measured on a calendar quarter basis.

*Continuous automated sampling system* means the total equipment and procedures for automated sample collection and sample recovery/analysis to determine a pollutant concentration or emission rate by collecting a single or multiple integrated sample(s) of the pollutant (or diluent gas) for subsequent on-or off-site analysis; integrated sample(s) collected are representative of the emissions for the sample time as specified by the applicable requirement.

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*Continuous emission monitoring system* means a monitoring system for continuously measuring the emissions of a pollutant from an affected facility.

*Dioxin/furan* means tetra- through octa- chlorinated dibenzo-p-dioxins and dibenzofurans.

*EPA* means the Administrator of the U.S. EPA or employee of the U.S. EPA who is delegated to perform the specified task.

*Federally enforceable* means all limitations and conditions that are enforceable by EPA including the requirements of 40 CFR part 60, 40 CFR part 61, and 40 CFR part 63, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

*First calendar half* means the period starting on January 1 and ending on June 30 in any year.

*Four-hour block average* or *4-hour block average* means the average of all hourly emission concentrations when the affected facility is operating and combusting municipal solid waste measured over 4-hour periods of time from 12:00 midnight to 4 a.m., 4 a.m. to 8 a.m., 8 a.m. to 12:00 noon, 12:00 noon to 4 p.m., 4 p.m. to 8 p.m., and 8 p.m. to 12:00 midnight.

*Mass burn refractory municipal waste combustor* means a field-erected combustor that combusts municipal solid waste in a refractory wall furnace. Unless otherwise specified, this includes combustors with a cylindrical rotary refractory wall furnace.

*Mass burn rotary waterwall municipal waste combustor* means a field-erected combustor that combusts municipal solid waste in a cylindrical rotary waterwall furnace or on a tumbling-tile grate.

*Mass burn waterwall municipal waste combustor* means a field-erected combustor that combusts municipal solid waste in a waterwall furnace.

*Materials separation plan* means a plan that identifies both a goal and an approach to separate certain components of municipal solid waste for a given service area in order to make the separated materials available for recycling. A materials separation plan may include elements such as dropoff facilities, buy-back or deposit-return incentives, curbside pickup programs, or centralized mechanical separation systems. A materials separation plan may include different goals or approaches for different subareas in the service area, and may include no materials separation activities for certain subareas or, if warranted, an entire service area.

*Maximum demonstrated municipal waste combustor unit load* means the highest 4-hour arithmetic average municipal waste combustor unit load achieved during four consecutive hours during the most recent dioxin/furan performance test demonstrating compliance with the applicable limit for municipal waste combustor organics specified under §60.52b(c).

*Maximum demonstrated particulate matter control device temperature* means the highest 4-hour arithmetic average flue gas temperature measured at the particulate matter control device inlet during four consecutive hours during the most recent dioxin/furan performance test demonstrating compliance with the applicable limit for municipal waste combustor organics specified under §60.52b(c).

*Modification* or *modified municipal waste combustor unit* means a municipal waste combustor unit to which changes have been made after June 19, 1996 if the cumulative cost of the changes, over the life of the unit, exceed 50 percent of the original cost of construction and installation of the unit (not including the cost of any land purchased in connection with construction or installation) updated to current costs; or any physical change in the municipal waste combustor unit or change in the method of operation of the municipal waste combustor unit increases the amount of any air pollutant emitted by the unit for which standards have been established under section 129 or section 111. Increases in the amount of any air pollutant emitted by the municipal waste combustor unit are determined at 100-percent physical load capability and downstream of all air pollution control devices, with no consideration given for load restrictions based on permits or other nonphysical operational restrictions.

*Modular excess-air municipal waste combustor* means a combustor that combusts municipal solid waste and that is not field-erected and has multiple combustion chambers, all of which are designed to operate at conditions with combustion air amounts in excess of theoretical air requirements.

*Modular starved-air municipal waste combustor* means a combustor that combusts municipal solid waste and that is not field-erected and has multiple combustion chambers in which the primary combustion chamber is designed to operate at substoichiometric conditions.

*Municipal solid waste* or *municipal-type solid waste* or *MSW* means household, commercial/retail, and/or institutional waste. Household waste includes material discarded by single and multiple residential dwellings, hotels, motels, and other similar

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permanent or temporary housing establishments or facilities. Commercial/retail waste includes material discarded by stores, offices, restaurants, warehouses, nonmanufacturing activities at industrial facilities, and other similar establishments or facilities. Institutional waste includes material discarded by schools, nonmedical waste discarded by hospitals, material discarded by nonmanufacturing activities at prisons and government facilities, and material discarded by other similar establishments or facilities. Household, commercial/retail, and institutional waste does not include used oil; sewage sludge; wood pallets; construction, renovation, and demolition wastes (which includes but is not limited to railroad ties and telephone poles); clean wood; industrial process or manufacturing wastes; medical waste; or motor vehicles (including motor vehicle parts or vehicle fluff). Household, commercial/retail, and institutional wastes include:

- (1) Yard waste;
- (2) Refuse-derived fuel; and
- (3) Motor vehicle maintenance materials limited to vehicle batteries and tires except as specified in §60.50b(g).

*Municipal waste combustor, MWC, or municipal waste combustor unit:*

- (1) Means any setting or equipment that combusts solid, liquid, or gasified municipal solid waste including, but not limited to, field-erected incinerators (with or without heat recovery), modular incinerators (starved-air or excess-air), boilers (i.e., steam generating units), furnaces (whether suspension-fired, grate-fired, mass-fired, air curtain incinerators, or fluidized bed-fired), and pyrolysis/combustion units. Municipal waste combustors do not include pyrolysis/combustion units located at a plastics/rubber recycling unit (as specified in §60.50b(m)). Municipal waste combustors do not include cement kilns firing municipal solid waste (as specified in §60.50b(p)). Municipal waste combustors do not include internal combustion engines, gas turbines, or other combustion devices that combust landfill gases collected by landfill gas collection systems.
- (2) The boundaries of a municipal solid waste combustor are defined as follows. The municipal waste combustor unit includes, but is not limited to, the municipal solid waste fuel feed system, grate system, flue gas system, bottom ash system, and the combustor water system. The municipal waste combustor boundary starts at the municipal solid waste pit or hopper and extends through:
  - (i) The combustor flue gas system, which ends immediately following the heat recovery equipment or, if there is no heat recovery equipment, immediately following the combustion chamber,
  - (ii) The combustor bottom ash system, which ends at the truck loading station or similar ash handling equipment that transfer the ash to final disposal, including all ash handling systems that are connected to the bottom ash handling system; and
  - (iii) The combustor water system, which starts at the feed water pump and ends at the piping exiting the steam drum or superheater.
- (3) The municipal waste combustor unit does not include air pollution control equipment, the stack, water treatment equipment, or the turbine-generator set.

*Municipal waste combustor acid gases* means all acid gases emitted in the exhaust gases from municipal waste combustor units including, but not limited to, sulfur dioxide and hydrogen chloride gases.

*Municipal waste combustor metals* means metals and metal compounds emitted in the exhaust gases from municipal waste combustor units.

*Municipal waste combustor organics* means organic compounds emitted in the exhaust gases from municipal waste combustor units and includes tetra-through octa- chlorinated dibenzo-p-dioxins and dibenzofurans.

*Municipal waste combustor plant* means one or more affected facilities (as defined in §60.50b) at the same location.

*Municipal waste combustor unit capacity* means the maximum charging rate of a municipal waste combustor unit expressed in tons per day of municipal solid waste combusted, calculated according to the procedures under §60.58b(j). Section 60.58b(j) includes procedures for determining municipal waste combustor unit capacity for continuous and batch feed municipal waste combustors.

*Municipal waste combustor unit load* means the steam load of the municipal waste combustor unit measured as specified in §60.58b(i)(6).

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*Particulate matter* means total particulate matter emitted from municipal waste combustor units as measured by EPA Reference Method 5 (see §60.58b(c)).

*Plastics/rubber recycling unit* means an integrated processing unit where plastics, rubber, and/or rubber tires are the only feed materials (incidental contaminants may be included in the feed materials) and they are processed into a chemical plant feedstock or petroleum refinery feedstock, where the feedstock is marketed to and used by a chemical plant or petroleum refinery as input feedstock. The combined weight of the chemical plant feedstock and petroleum refinery feedstock produced by the plastics/rubber recycling unit on a calendar quarter basis shall be more than 70 percent of the combined weight of the plastics, rubber, and rubber tires processed by the plastics/rubber recycling unit on a calendar quarter basis. The plastics, rubber, and/or rubber tire feed materials to the plastics/rubber recycling unit may originate from the separation or diversion of plastics, rubber, or rubber tires from MSW or industrial solid waste, and may include manufacturing scraps, trimmings, and off-specification plastics, rubber, and rubber tire discards. The plastics, rubber, and rubber tire feed materials to the plastics/rubber recycling unit may contain incidental contaminants (e.g., paper labels on plastic bottles, metal rings on plastic bottle caps, etc.).

*Potential hydrogen chloride emission concentration* means the hydrogen chloride emission concentration that would occur from combustion of municipal solid waste in the absence of any emission controls for municipal waste combustor acid gases.

*Potential mercury emission concentration* means the mercury emission concentration that would occur from combustion of municipal solid waste in the absence of any mercury emissions control.

*Potential sulfur dioxide emissions* means the sulfur dioxide emission concentration that would occur from combustion of municipal solid waste in the absence of any emission controls for municipal waste combustor acid gases.

*Pulverized coal/refuse-derived fuel mixed fuel-fired combustor* means a combustor that fires coal and refuse-derived fuel simultaneously, in which pulverized coal is introduced into an air stream that carries the coal to the combustion chamber of the unit where it is fired in suspension. This includes both conventional pulverized coal and micropulverized coal.

*Pyrolysis/combustion unit* means a unit that produces gases, liquids, or solids through the heating of municipal solid waste, and the gases, liquids, or solids produced are combusted and emissions vented to the atmosphere.

*Reconstruction* means rebuilding a municipal waste combustor unit for which the reconstruction commenced after June 19, 1996, and the cumulative costs of the construction over the life of the unit exceed 50 percent of the original cost of construction and installation of the unit (not including any cost of land purchased in connection with such construction or installation) updated to current costs (current dollars).

*Refractory unit or refractory wall furnace* means a combustion unit having no energy recovery (e.g., via a waterwall) in the furnace (i.e., radiant heat transfer section) of the combustor.

*Refuse-derived fuel* means a type of municipal solid waste produced by processing municipal solid waste through shredding and size classification. This includes all classes of refuse-derived fuel including low-density fluff refuse-derived fuel through densified refuse-derived fuel and pelletized refuse-derived fuel.

*Refuse-derived fuel stoker* means a steam generating unit that combusts refuse-derived fuel in a semisuspension firing mode using air-fed distributors.

*Same location* means the same or contiguous property that is under common ownership or control including properties that are separated only by a street, road, highway, or other public right-of-way. Common ownership or control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, subdivision, or any combination thereof including any municipality or other governmental unit, or any quasi-governmental authority (e.g., a public utility district or regional waste disposal authority).

*Second calendar half* means the period starting July 1 and ending on December 31 in any year.

*Shift supervisor* means the person who is in direct charge and control of the operation of a municipal waste combustor and who is responsible for onsite supervision, technical direction, management, and overall performance of the facility during an assigned shift.

*Spreader stoker coal/refuse-derived fuel mixed fuel-fired combustor* means a combustor that fires coal and refuse-derived fuel simultaneously, in which coal is introduced to the combustion zone by a mechanism that throws the fuel onto a grate from above. Combustion takes place both in suspension and on the grate.



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

*Total mass dioxin/furan or total mass* means the total mass of tetra- through octa- chlorinated dibenzo-p-dioxins and dibenzofurans, as determined using EPA Reference Method 23 and the procedures specified under §60.58b(g).

*Tumbling-tile* means a grate tile hinged at one end and attached to a ram at the other end. When the ram extends, the grate tile rotates around the hinged end.

*Twenty-four hour daily average or 24-hour daily average* means either the arithmetic mean or geometric mean (as specified) of all hourly emission concentrations when the affected facility is operating and combusting municipal solid waste measured over a 24-hour period between 12:00 midnight and the following midnight.

*Untreated lumber* means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Untreated lumber does not include wood products that have been painted, pigment-stained, or "pressure-treated." Pressure-treating compounds include, but are not limited to, chromate copper arsenate, pentachlorophenol, and creosote.

*Waterwall furnace* means a combustion unit having energy (heat) recovery in the furnace (i.e., radiant heat transfer section) of the combustor.

*Yard waste* means grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs that are generated by residential, commercial/retail, institutional, and/or industrial sources as part of maintenance activities associated with yards or other private or public lands. Yard waste does not include construction, renovation, and demolition wastes, which are exempt from the definition of municipal solid waste in this section. Yard waste does not include clean wood, which is exempt from the definition of municipal solid waste in this section.

[60 FR 65419, Dec. 19, 1995, as amended at 62 FR 45121, 45126, Aug. 25, 1997; 66 FR 36476, July 12, 2001; 71 FR 27335, May 10, 2006]

**§ 60.52b Standards for municipal waste combustor metals, acid gases, organics, and nitrogen oxides.**

(a) The limits for municipal waste combustor metals are specified in paragraphs (a)(1) through (a)(5) of this section.

- (1) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be discharged into the atmosphere from that affected facility any gases that contain particulate matter in excess of the limits specified in paragraph (a)(1)(i) or (a)(1)(ii) of this section.
  - (i) For affected facilities that commenced construction, modification, or reconstruction after September 20, 1994, and on or before December 19, 2005, the emission limit is 24 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.
  - (ii) For affected facilities that commenced construction, modification, or reconstruction after December 19, 2005, the emission limit is 20 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.
- (2) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 10 percent opacity (6-minute average).
- (3) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be discharged into the atmosphere from that affected facility any gases that contain cadmium in excess of the limits specified in paragraph (a)(3)(i) or (a)(3)(ii) of this section.
  - (i) For affected facilities that commenced construction, modification, or reconstruction after September 20, 1994, and on or before December 19, 2005, the emission limit is 20 micrograms per dry standard cubic meter, corrected to 7 percent oxygen.
  - (ii) For affected facilities that commenced construction, modification, or reconstruction after December 19, 2005, the emission limit is 10 micrograms per dry standard cubic meter, corrected to 7 percent oxygen.
- (4) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be discharged into the

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atmosphere from the affected facility any gases that contain lead in excess of the limits specified in paragraph (a)(4)(i) or (a)(4)(ii) of this section.

- (i) For affected facilities that commenced construction, modification, or reconstruction after September 20, 1994, and on or before December 19, 2005, the emission limit is 200 micrograms per dry standard cubic meter, corrected to 7 percent oxygen.
  - (ii) For affected facilities that commenced construction, modification, or reconstruction after December 19, 2005, the emission limit is 140 micrograms per dry standard cubic meter, corrected to 7 percent oxygen.
  - (5) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be discharged into the atmosphere from the affected facility any gases that contain mercury in excess of the limits specified in paragraph (a)(5)(i) or (a)(5)(ii) of this section.
    - (i) For affected facilities that commenced construction, modification, or reconstruction after September 20, 1994 and on or before December 19, 2005, the emission limit is 80 micrograms per dry standard cubic meter or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent.
    - (ii) For affected facilities that commenced construction, modification, or reconstruction after December 19, 2005, the emission limit is 50 micrograms per dry standard cubic meter, or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent.
- (b) The limits for municipal waste combustor acid gases are specified in paragraphs (b)(1) and (b)(2) of this section.
- (1) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be discharged into the atmosphere from that affected facility any gases that contain sulfur dioxide in excess of 30 parts per million by volume or 20 percent of the potential sulfur dioxide emission concentration (80-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent. The averaging time is specified under §60.58b(e).
  - (2) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be discharged into the atmosphere from that affected facility any gases that contain hydrogen chloride in excess of 25 parts per million by volume or 5 percent of the potential hydrogen chloride emission concentration (95-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent.
- (c) The limits for municipal waste combustor organics are specified in paragraphs (c)(1) and (c)(2) of this section.
- (1) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility for which construction, modification or reconstruction commences on or before November 20, 1997 shall cause to be discharged into the atmosphere from that affected facility any gases that contain dioxin/furan emissions that exceed 30 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen, for the first 3 years following the date of initial startup. After the first 3 years following the date of initial startup, no owner or operator shall cause to be discharged into the atmosphere from that affected facility any gases that contain dioxin/furan total mass emissions that exceed 13 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen.
  - (2) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility for which construction, modification, or reconstruction commences after November 20, 1997 shall cause to be discharged into the atmosphere from that affected facility any gases that contain dioxin/furan total mass emissions that exceed 13 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen.
- (d) The limits for nitrogen oxides are specified in paragraphs (d)(1) and (d)(2) of this section.
- (1) During the first year of operation after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be

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discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides in excess of 180 parts per million by volume, corrected to 7 percent oxygen (dry basis). The averaging time is specified under §60.58b(h).

- (2) After the first year of operation following the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides in excess of 150 parts per million by volume, corrected to 7 percent oxygen (dry basis). The averaging time is specified under §60.58b(h).

[60 FR 65419, Dec. 19, 1995, as amended at 62 FR 45121, 45126, Aug. 25, 1997; 71 FR 27336, May 10, 2006]

**§ 60.53b Standards for municipal waste combustor operating practices.**

- (a) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be discharged into the atmosphere from that affected facility any gases that contain carbon monoxide in excess of the emission limits specified in table 1 of this subpart.

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Table 1—Municipal Waste Combustor Operating Standards

Municipal waste combustor technology	Carbon monoxide emission limit (parts per million by volume) <sup>a</sup>	Averaging time (hours) <sup>b</sup>
Mass burn waterwall	100	4
Mass burn refractory	100	4
Mass burn rotary waterwall	100	24
Modular starved air	50	4
Modular excess air	50	4
Refuse-derived fuel stoker	150	24
Bubbling fluidized bed combustor	100	4
Circulating fluidized bed combustor	100	4
Pulverized coal/refuse-derived fuel mixed fuel-fired combustor	150	4
Spreader stoker coal/refuse-derived fuel mixed fuel-fired combustor	150	24

<sup>a</sup>Measured at the combustor outlet in conjunction with a measurement of oxygen concentration, corrected to 7 percent oxygen (dry basis). The averaging times are specified in greater detail in §60.58b(i).

<sup>b</sup>Averaging times are 4-hour or 24-hour block averages.

- (b) No owner or operator of an affected facility shall cause such facility to operate at a load level greater than 110 percent of the maximum demonstrated municipal waste combustor unit load as defined in §60.51b, except as specified in paragraphs (b)(1) and (b)(2) of this section. The averaging time is specified under §60.58b(i).
- (1) During the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, no municipal waste combustor unit load limit is applicable if the provisions of paragraph (b)(2) of this section are met.
  - (2) The municipal waste combustor unit load limit may be waived in writing by the Administrator for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions. The municipal waste combustor unit load limit continues to apply, and remains enforceable, until and unless the Administrator grants the waiver.
- (c) No owner or operator of an affected facility shall cause such facility to operate at a temperature, measured at the particulate matter control device inlet, exceeding 17 °C above the maximum demonstrated particulate matter control device temperature as defined in §60.51b, except as specified in paragraphs (c)(1) and (c)(2) of this section. The averaging time is specified under §60.58b(i). The requirements specified in this paragraph apply to each particulate matter control device utilized at the affected facility.
- (1) During the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, no particulate matter control device temperature limitations are applicable if the provisions of paragraph (b)(2) of this section are met.
  - (2) The particulate matter control device temperature limits may be waived in writing by the Administrator for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or

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related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions. The temperature limits continue to apply, and remain enforceable, until and unless the Administrator grants the waiver.

- (d) Paragraph (m)(2) of §60.58b addresses treatment of activated carbon injection rate during dioxin/furan or mercury testing.

[60 FR 65419, Dec. 19, 1995, as amended at 62 FR 45126, Aug. 25, 1997; 71 FR 27336, May 10, 2006]

**§ 60.54b Standards for municipal waste combustor operator training and certification.**

- (a) No later than the date 6 months after the date of startup of an affected facility or on December 19, 1996, whichever is later, each chief facility operator and shift supervisor shall obtain and maintain a current provisional operator certification from either the American Society of Mechanical Engineers [QRO-1-1994 (incorporated by reference—see §60.17 of subpart A of this part)] or a State certification program.
- (b) Not later than the date 6 months after the date of startup of an affected facility or on December 19, 1996, whichever is later, each chief facility operator and shift supervisor shall have completed full certification or shall have scheduled a full certification exam with either the American Society of Mechanical Engineers [QRO-1-1994 (incorporated by reference—see §60.17 of subpart A of this part)] or a State certification program.
- (c) No owner or operator of an affected facility shall allow the facility to be operated at any time unless one of the following persons is on duty and at the affected facility: A fully certified chief facility operator, a provisionally certified chief facility operator who is scheduled to take the full certification exam according to the schedule specified in paragraph (b) of this section, a fully certified shift supervisor, or a provisionally certified shift supervisor who is scheduled to take the full certification exam according to the schedule specified in paragraph (b) of this section.
- (1) The requirement specified in paragraph (c) of this section shall take effect 6 months after the date of startup of the affected facility or on December 19, 1996, whichever is later.
- (2) If both the certified chief facility operator and certified shift supervisor are unavailable, a provisionally certified control room operator on site at the municipal waste combustion unit may fulfill the certified operator requirement. Depending on the length of time that a certified chief facility operator and certified shift supervisor are away, the owner or operator of the affected facility must meet one of three criteria:
- (i) When the certified chief facility operator and certified shift supervisor are both off site for 12 hours or less, and no other certified operator is on site, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor.
- (ii) When the certified chief facility operator and certified shift supervisor are off site for more than 12 hours, but for two weeks or less, and no other certified operator is on site, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor without notice to, or approval by, the Administrator. However, the owner or operator of the affected facility must record the period when the certified chief facility operator and certified shift supervisor are off site and include that information in the annual report as specified under §60.59b(g)(5).
- (iii) When the certified chief facility operator and certified shift supervisor are off site for more than two weeks, and no other certified operator is on site, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor without approval by the Administrator. However, the owner or operator of the affected facility must take two actions:
- (A) Notify the Administrator in writing. In the notice, state what caused the absence and what actions are being taken by the owner or operator of the facility to ensure that a certified chief facility operator or certified shift supervisor is on site as expeditiously as practicable.
- (B) Submit a status report and corrective action summary to the Administrator every four weeks following the initial notification. If the Administrator provides notice that the status report or corrective action summary is disapproved, the municipal waste combustion unit may continue operation for 90 days, but then must cease operation. If corrective actions are taken in the 90-day period such that the Administrator withdraws the disapproval, municipal waste combustion unit operation may continue.

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- (3) A provisionally certified operator who is newly promoted or recently transferred to a shift supervisor position or a chief facility operator position at the municipal waste combustion unit may perform the duties of the certified chief facility operator or certified shift supervisor without notice to, or approval by, the Administrator for up to six months before taking the ASME QRO certification exam.
- (d) All chief facility operators, shift supervisors, and control room operators at affected facilities must complete the EPA or State municipal waste combustor operator training course no later than the date 6 months after the date of startup of the affected facility or by December 19, 1996, whichever is later.
- (e) The owner or operator of an affected facility shall develop and update on a yearly basis a site-specific operating manual that shall, at a minimum, address the elements of municipal waste combustor unit operation specified in paragraphs (e)(1) through (e)(11) of this section.
  - (1) A summary of the applicable standards under this subpart;
  - (2) A description of basic combustion theory applicable to a municipal waste combustor unit;
  - (3) Procedures for receiving, handling, and feeding municipal solid waste;
  - (4) Municipal waste combustor unit startup, shutdown, and malfunction procedures;
  - (5) Procedures for maintaining proper combustion air supply levels;
  - (6) Procedures for operating the municipal waste combustor unit within the standards established under this subpart;
  - (7) Procedures for responding to periodic upset or off-specification conditions;
  - (8) Procedures for minimizing particulate matter carryover;
  - (9) Procedures for handling ash;
  - (10) Procedures for monitoring municipal waste combustor unit emissions; and
  - (11) Reporting and recordkeeping procedures.
- (f) The owner or operator of an affected facility shall establish a training program to review the operating manual according to the schedule specified in paragraphs (f)(1) and (f)(2) of this section with each person who has responsibilities affecting the operation of an affected facility including, but not limited to, chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers.
  - (1) Each person specified in paragraph (f) of this section shall undergo initial training no later than the date specified in paragraph (f)(1)(i), (f)(1)(ii), or (f)(1)(iii) of this section whichever is later.
    - (i) The date 6 months after the date of startup of the affected facility;
    - (ii) The date prior to the day the person assumes responsibilities affecting municipal waste combustor unit operation; or
    - (iii) December 19, 1996.
  - (2) Annually, following the initial review required by paragraph (f)(1) of this section.
- (g) The operating manual required by paragraph (e) of this section shall be kept in a readily accessible location for all persons required to undergo training under paragraph (f) of this section. The operating manual and records of training shall be available for inspection by the EPA or its delegated enforcement agency upon request.

[60 FR 65419, Dec. 19, 1995, as amended at 62 FR 45126, Aug. 25, 1997; 71 FR 27337, May 10, 2006]

**§ 60.55b Standards for municipal waste combustor fugitive ash emissions.**

- (a) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be discharged to 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 observations as specified in §60.58b(k), except as provided in paragraphs (b) and (c) of this section.

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- (b) The emission limit specified in paragraph (a) of this section does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the emission limit specified in paragraph (a) of this section does cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems.
- (c) The provisions specified in paragraph (a) of this section do not apply during maintenance and repair of ash conveying systems.

[60 FR 65419, Dec. 19, 1995, as amended at 62 FR 45126, Aug. 25, 1997]

**§ 60.56b Standards for air curtain incinerators.**

On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, the owner or operator of an air curtain incinerator with the capacity to combust greater than 250 tons per day of municipal solid waste and that combusts a fuel feed stream composed of 100 percent yard waste and no other municipal solid waste materials shall at no time cause to be discharged into the atmosphere from that incinerator any gases that exhibit greater than 10-percent opacity (6-minute average), except that an opacity level of up to 35 percent (6-minute average) is permitted during startup periods during the first 30 minutes of operation of the unit.

[60 FR 65419, Dec. 19, 1995, as amended at 62 FR 45126, Aug. 25, 1997]

**§ 60.57b Siting requirements.**

- (a) The owner or operator of an affected facility shall prepare a materials separation plan, as defined in §60.51b, for the affected facility and its service area, and shall comply with the requirements specified in paragraphs (a)(1) through (a)(10) of this section. The initial application is defined as representing a good faith submittal as determined by EPA.
  - (1) The owner or operator shall prepare a preliminary draft materials separation plan and shall make the plan available to the public as specified in paragraphs (a)(1)(i) and (a)(1)(ii) of this section.
    - (i) The owner or operator shall distribute the preliminary draft materials separation plan to the principal public libraries in the area where the affected facility is to be constructed.
    - (ii) The owner or operator shall publish a notification of a public meeting in the principal newspaper(s) serving the area where the affected facility is to be constructed and where the waste treated by the affected facility will primarily be collected. As a minimum, the notification shall include the information specified in paragraphs (a)(1)(ii)(A) through (a)(1)(ii)(D) of this section.
      - (A) The date, time, and location of the public meeting.
      - (B) The location of the public libraries where the preliminary draft materials separation plan may be found, including normal business hours of the libraries.
      - (C) An agenda of the issues to be discussed at the public meeting.
      - (D) The dates that the public comment period on the preliminary draft materials separation plan begins and ends.
  - (2) The owner or operator shall conduct a public meeting, accept comments on the preliminary draft materials separation plan, and comply with the requirements specified in paragraphs (a)(2)(i) through (a)(2)(iv) of this section.
    - (i) The public meeting shall be conducted in the county where the affected facility is to be located.
    - (ii) The public meeting shall be scheduled to occur 30 days or more after making the preliminary draft materials separation plan available to the public as specified under paragraph (a)(1) of this section.
    - (iii) Suggested issues to be addressed at the public meeting are listed in paragraphs (a)(2)(iii)(A) through (a)(2)(iii)(H) of this section.
      - (A) The expected size of the service area for the affected facility.
      - (B) The amount of waste generation anticipated for the service area.
      - (C) The types and estimated amounts of materials proposed for separation.
      - (D) The methods proposed for materials separation.

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- (E) The amount of residual waste to be disposed.
  - (F) Alternate disposal methods for handling the residual waste.
  - (G) Identification of the location(s) where responses to public comment on the preliminary draft materials separation plan will be available for inspection, as specified in paragraphs (a)(3) and (a)(4) of this section.
  - (H) Identification of the locations where the final draft materials separation plan will be available for inspection, as specified in paragraph (a)(7).
- (iv) Nothing in this section shall preclude an owner or operator from combining this public meeting with any other public meeting required as part of any other Federal, State, or local permit review process except the public meeting required under paragraph (b)(4) of this section.
- (3) Following the public meeting required by paragraph (a)(2) of this section, the owner or operator shall prepare responses to the comments received at the public meeting.
  - (4) The owner or operator shall make the document summarizing responses to public comments available to the public (including distribution to the principal public libraries used to announce the meeting) in the service area where the affected facility is to be located.
  - (5) The owner or operator shall prepare a final draft materials separation plan for the affected facility considering the public comments received at the public meeting.
  - (6) As required under §60.59b(a), the owner or operator shall submit to EPA a copy of the notification of the public meeting, a transcript of the public meeting, the document summarizing responses to public comments, and copies of both the preliminary and final draft materials separation plans on or before the time the facility's application for a construction permit is submitted under 40 CFR part 51, subpart I, or part 52, as applicable.
  - (7) As part of the distribution of the siting analysis required under paragraph (b)(3) of this section, the owner or operator shall make the final draft materials separation plan required under paragraph (a)(5) of this section available to the public, as specified in paragraph (b)(3) of this section.
  - (8) As part of the public meeting for review of the siting analysis required under paragraph (b)(4) of this section, the owner or operator shall address questions concerning the final draft materials separation plan required by paragraph (a)(5) of this section including discussion of how the final draft materials separation plan has changed from the preliminary draft materials separation plan that was discussed at the first public meeting required by paragraph (a)(2) of this section.
  - (9) If the owner or operator receives any comments on the final draft materials separation plan during the public meeting required in paragraph (b)(4) of this section, the owner or operator shall respond to those comments in the document prepared in accordance with paragraph (b)(5) of this section.
  - (10) The owner or operator shall prepare a final materials separation plan and shall submit, as required under §60.59b(b)(5)(ii), the final materials separation plan as part of the initial notification of construction.
- (b) The owner or operator of an affected facility for which the initial application for a construction permit under 40 CFR part 51, subpart I, or part 52, as applicable, is submitted after December 19, 1995 shall prepare a siting analysis in accordance with paragraphs (b)(1) and (b)(2) of this section and shall comply with the requirements specified in paragraphs (b)(3) through (b)(7) of this section.
- (1) The siting analysis shall be an analysis of the impact of the affected facility on ambient air quality, visibility, soils, and vegetation.
  - (2) The analysis shall consider air pollution control alternatives that minimize, on a site-specific basis, to the maximum extent practicable, potential risks to the public health or the environment.
  - (3) The owner or operator shall make the siting analysis and final draft materials separation plan required by paragraph (a)(5) of this section available to the public as specified in paragraphs (b)(3)(i) and (b)(3)(ii) of this section.
    - (i) The owner or operator shall distribute the siting analysis and final draft materials separation plan to the principal public libraries in the area where the affected facility is to be constructed.



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- (ii) The owner or operator shall publish a notification of a public meeting in the principal newspaper(s) serving the area where the affected facility is to be constructed and where the waste treated by the affected facility will primarily be collected. As a minimum, the notification shall include the information specified in paragraphs (b)(3)(ii)(A) through (b)(3)(ii)(D) of this section.
  - (A) The date, time, and location of the public meeting.
  - (B) The location of the public libraries where the siting analyses and final draft materials separation plan may be found, including normal business hours.
  - (C) An agenda of the issues to be discussed at the public meeting.
  - (D) The dates that the public comment period on the siting analyses and final draft materials separation plan begins and ends.
- (4) The owner or operator shall conduct a public meeting and accept comments on the siting analysis and the final draft materials separation plan required under paragraph (a)(5) of this section. The public meeting shall be conducted in the county where the affected facility is to be located and shall be scheduled to occur 30 days or more after making the siting analysis available to the public as specified under paragraph (b)(3) of this section.
- (5) The owner or operator shall prepare responses to the comments on the siting analysis and the final draft materials separation plan that are received at the public meeting.
- (6) The owner or operator shall make the document summarizing responses to public comments available to the public (including distribution to all public libraries) in the service area where the affected facility is to be located.
- (7) As required under §60.59b(b)(5), the owner or operator shall submit a copy of the notification of the public meeting, a transcript of the public meeting, the document summarizing responses to public comments, and the siting analysis as part of the initial notification of construction.
- (c) The owner or operator of an affected facility for which construction is commenced after September 20, 1994 shall prepare a siting analysis in accordance with 40 CFR part 51, Subpart I, or part 52, as applicable, and shall submit the siting analysis as part of the initial notification of construction. Affected facilities subject to paragraphs (a) and (b) of this section are not subject to this paragraph.

[60 FR 65419, Dec. 19, 1995, as amended at 62 FR 45126, Aug. 25, 1997; 71 FR 27337, May 10, 2006]

**§ 60.58b Compliance and performance testing.**

- (a) The provisions for startup, shutdown, and malfunction are provided in paragraphs (a)(1) and (a)(2) of this section.
  - (1) Except as provided by §60.56b, the standards under this subpart apply at all times except during periods of startup, shutdown, and malfunction. Duration of startup, shutdown, or malfunction periods are limited to 3 hours per occurrence, except as provided in paragraph (a)(1)(iii) of this section. During periods of startup, shutdown, or malfunction, monitoring data shall be dismissed or excluded from compliance calculations, but shall be recorded and reported in accordance with the provisions of 40 CFR 60.59b(d)(7).
    - (i) The startup period commences when the affected facility begins the continuous burning of municipal solid waste and does not include any warmup period when the affected facility is combusting fossil fuel or other nonmunicipal solid waste fuel, and no municipal solid waste is being fed to the combustor.
    - (ii) Continuous burning is the continuous, semicontinuous, or batch feeding of municipal solid waste for purposes of waste disposal, energy production, or providing heat to the combustion system in preparation for waste disposal or energy production. The use of municipal solid waste solely to provide thermal protection of the grate or hearth during the startup period when municipal solid waste is not being fed to the grate is not considered to be continuous burning.
    - (iii) For the purpose of compliance with the carbon monoxide emission limits in §60.53b(a), if a loss of boiler water level control ( e.g., boiler waterwall tube failure) or a loss of combustion air control ( e.g., loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction, the duration of the malfunction period is limited to 15 hours per occurrence. During such periods of malfunction, monitoring data

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shall be dismissed or excluded from compliance calculations, but shall be recorded and reported in accordance with the provisions of §60.59b(d)(7).

- (2) The opacity limits for air curtain incinerators specified in §60.56b apply at all times as specified under §60.56b except during periods of malfunction. Duration of malfunction periods are limited to 3 hours per occurrence.
- (b) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring the oxygen or carbon dioxide content of the flue gas at each location where carbon monoxide, sulfur dioxide, nitrogen oxides emissions, or particulate matter (if the owner or operator elects to continuously monitor emissions under paragraph (n) of this section) are monitored and record the output of the system and shall comply with the test procedures and test methods specified in paragraphs (b)(1) through (b)(8) of this section.
  - (1) The span value of the oxygen (or 20 percent carbon dioxide) monitor shall be 25 percent oxygen (or 20 percent carbon dioxide).
  - (2) The monitor shall be installed, evaluated, and operated in accordance with §60.13 of subpart A of this part.
  - (3) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under §60.8 of subpart A of this part.
  - (4) The monitor shall conform to Performance Specification 3 in appendix B of this part except for section 2.3 (relative accuracy requirement).
  - (5) The quality assurance procedures of appendix F of this part except for section 5.1.1 (relative accuracy test audit) shall apply to the monitor.
  - (6) If carbon dioxide is selected for use in diluent corrections, the relationship between oxygen and carbon dioxide levels shall be established during the initial performance test according to the procedures and methods specified in paragraphs (b)(6)(i) through (b)(6)(iv) of this section. This relationship may be reestablished during performance compliance tests.
    - (i) The fuel factor equation in Method 3B shall be used to determine the relationship between oxygen and carbon dioxide at a sampling location. Method 3, 3A, or 3B, or as an alternative ASME PTC-19-10-1981—Part 10, as applicable, shall be used to determine the oxygen concentration at the same location as the carbon dioxide monitor.
    - (ii) Samples shall be taken for at least 30 minutes in each hour.
    - (iii) Each sample shall represent a 1-hour average.
    - (iv) A minimum of three runs shall be performed.
  - (7) The relationship between carbon dioxide and oxygen concentrations that is established in accordance with paragraph (b)(6) of this section shall be submitted to EPA as part of the initial performance test report and, if applicable, as part of the annual test report if the relationship is reestablished during the annual performance test.
  - (8) During a loss of boiler water level control or loss of combustion air control malfunction period as specified in paragraph (a)(1)(iii) of this section, a diluent cap of 14 percent for oxygen or 5 percent for carbon dioxide may be used in the emissions calculations for sulfur dioxide and nitrogen oxides.
- (c) Except as provided in paragraph (c)(10) of this section, the procedures and test methods specified in paragraphs (c)(1) through (c)(11) of this section shall be used to determine compliance with the emission limits for particulate matter and opacity under §60.52b(a)(1) and (a)(2).
  - (1) The EPA Reference Method 1 shall be used to select sampling site and number of traverse points.
  - (2) The EPA Reference Method 3, 3A or 3B, or as an alternative ASME PTC-19-10-1981—Part 10, as applicable, shall be used for gas analysis.
  - (3) EPA Reference Method 5 shall be used for determining compliance with the particulate matter emission limit. The minimum sample volume shall be 1.7 cubic meters. The probe and filter holder heating systems in the sample train shall be set to provide a gas temperature no greater than 160 °C. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 5 run.

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- (4) The owner or operator of an affected facility may request that compliance with the particulate matter emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.
- (5) As specified under §60.8 of subpart A of this part, all performance tests shall consist of three test runs. The average of the particulate matter emission concentrations from the three test runs is used to determine compliance.
- (6) In accordance with paragraphs (c)(7) and (c)(11) of this section, EPA Reference Method 9 shall be used for determining compliance with the opacity limit except as provided under §60.11(e) of subpart A of this part.
- (7) The owner or operator of an affected facility shall conduct an initial performance test for particulate matter emissions and opacity as required under §60.8 of subpart A of this part.
- (8) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous opacity monitoring system for measuring opacity and shall follow the methods and procedures specified in paragraphs (c)(8)(i) through (c)(8)(iv) of this section.
  - (i) The output of the continuous opacity monitoring system shall be recorded on a 6-minute average basis.
  - (ii) The continuous opacity monitoring system shall be installed, evaluated, and operated in accordance with §60.13 of subpart A of this part.
  - (iii) The continuous opacity monitoring system shall conform to Performance Specification 1 in appendix B of this part.
  - (iv) The initial performance evaluation shall be completed no later than 180 days after the date of the initial startup of the municipal waste combustor unit, as specified under §60.8 of subpart A of this part.
- (9) Following the date that the initial performance test for particulate matter is completed or is required to be completed under §60.8 of subpart A of this part for an affected facility, the owner or operator shall conduct a performance test for particulate matter on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period).
- (10) In place of particulate matter testing with EPA Reference Method 5, an owner or operator may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring particulate matter emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who elects to continuously monitor particulate matter emissions instead of conducting performance testing using EPA Method 5 shall install, calibrate, maintain, and operate a continuous emission monitoring system and shall comply with the requirements specified in paragraphs (c)(10)(i) through (c)(10)(xiv) of this section. The owner or operator who elects to continuously monitor particulate matter emissions instead of conducting performance testing using EPA Method 5 is not required to complete performance testing for particulate matter as specified in paragraph (c)(9) of this section and is not required to continuously monitor opacity as specified in paragraph (c)(8) of this section.
  - (i) Notify the Administrator one month before starting use of the system.
  - (ii) Notify the Administrator one month before stopping use of the system.
  - (iii) The monitor shall be installed, evaluated, and operated in accordance with §60.13 of subpart A of this part.
  - (iv) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under §60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of the continuous monitoring system if the owner or operator was previously determining compliance by Method 5 performance tests, whichever is later.
  - (v) The owner or operator of an affected facility may request that compliance with the particulate matter emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.

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- (vi) The owner or operator of an affected facility shall conduct an initial performance test for particulate matter emissions as required under §60.8 of subpart A of this part. Compliance with the particulate matter emission limit shall be determined by using the continuous emission monitoring system specified in paragraph (c)(10) of this section to measure particulate matter and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19, section 12.4.1.
- (vii) Compliance with the particulate matter emission limit shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data.
- (viii) After April 28, 2008, at a minimum, valid continuous monitoring system hourly averages shall be obtained as specified in paragraphs (c)(10)(viii)(A) and (c)(10)(viii)(B) for at least 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.
- (A) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.
- (B) Each particulate matter 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
- (ix) The 1-hour arithmetic averages required under paragraph (c)(10)(vii) of this section shall be expressed in milligrams per dry standard cubic meter corrected to 7 percent oxygen (dry basis) and shall be used to calculate the 24-hour daily arithmetic average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under §60.13(e)(2) of subpart A of this part.
- (x) All valid continuous emission monitoring system data shall be used in calculating average emission concentrations even if the minimum continuous emission monitoring system data requirements of paragraph (c)(10)(viii) of this section are not met.
- (xi) The continuous emission monitoring system shall be operated according to Performance Specification 11 in appendix B of this part.
- (xii) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 11 in appendix B of this part, particulate matter and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (c)(10)(xii)(A) and (c)(10)(xii)(B) of this section.
- (A) For particulate matter, EPA Reference Method 5 shall be used.
- (B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, as applicable shall be used.
- (xiii) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 2 in appendix F of this part.
- (xiv) When particulate matter emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 90 percent of the hours per calendar quarter and 95 percent of the hours per calendar year that the affected facility is operated and combusting municipal solid waste.
- (11) Following the date that the initial performance test for opacity is completed or is required to be completed under §60.8 of subpart A of this part for an affected facility, the owner or operator shall conduct a performance test for opacity on an annual basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period) using the test method specified in paragraph (c)(6) of this section.
- (d) The procedures and test methods specified in paragraphs (d)(1) and (d)(2) of this section shall be used to determine compliance with the emission limits for cadmium, lead, and mercury under §60.52b(a).
- (1) The procedures and test methods specified in paragraphs (d)(1)(i) through (d)(1)(ix) of this section shall be used to determine compliance with the emission limits for cadmium and lead under §60.52b(a) (3) and (4).

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- (i) The EPA Reference Method 1 shall be used for determining the location and number of sampling points.
  - (ii) The EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC-19-10-1981—Part 10, as applicable, shall be used for flue gas analysis.
  - (iii) The EPA Reference Method 29 shall be used for determining compliance with the cadmium and lead emission limits.
  - (iv) An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 29 test run for cadmium and lead required under paragraph (d)(1)(iii) of this section.
  - (v) The owner or operator of an affected facility may request that compliance with the cadmium or lead emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.
  - (vi) All performance tests shall consist of a minimum of three test runs conducted under representative full load operating conditions. The average of the cadmium or lead emission concentrations from three test runs or more shall be used to determine compliance.
  - (vii) Following the date of the initial performance test or the date on which the initial performance test is required to be completed under §60.8 of subpart A of this part, the owner or operator of an affected facility shall conduct a performance test for compliance with the emission limits for cadmium and lead on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period).
  - (viii)–(ix) [Reserved]
- (2) The procedures and test methods specified in paragraphs (d)(2)(i) through (d)(2)(xi) of this section shall be used to determine compliance with the mercury emission limit under §60.52b(a)(5).
- (i) The EPA Reference Method 1 shall be used for determining the location and number of sampling points.
  - (ii) The EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC-19-10-1981—Part 10, as applicable, shall be used for flue gas analysis.
  - (iii) The EPA Reference Method 29 or as an alternative ASTM D6784-02 shall be used to determine the mercury emission concentration. The minimum sample volume when using Method 29 as an alternative ASTM D6784-02 for mercury shall be 1.7 cubic meters.
  - (iv) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 29 or as an alternative ASTM D6784-02 test run for mercury required under paragraph (d)(2)(iii) of this section.
  - (v) The percent reduction in the potential mercury emissions (%PHg) is computed using equation 1:

$$\left( \%P_{\text{Hg}} \right) = \left( \frac{E_i - E_o}{E_i} \right) \times 100 \quad (1)$$

where:

%P<sub>Hg</sub> = percent reduction of the potential mercury emissions achieved.

E<sub>i</sub> = potential mercury emission concentration measured at the control device inlet, corrected to 7 percent oxygen (dry basis).

E<sub>o</sub> = controlled mercury emission concentration measured at the mercury control device outlet, corrected to 7 percent oxygen (dry basis).

- (vi) All performance tests shall consist of a minimum of three test runs conducted under representative full load operating conditions. The average of the mercury emission concentrations or percent reductions from three test runs or more is used to determine compliance.

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- (vii) The owner or operator of an affected facility may request that compliance with the mercury emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.
- (viii) The owner or operator of an affected facility shall conduct an initial performance test for mercury emissions as required under §60.8 of subpart A of this part.
- (ix) Following the date that the initial performance test for mercury is completed or is required to be completed under §60.8 of subpart A of this part, the owner or operator of an affected facility shall conduct a performance test for mercury emissions on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months from the previous performance test; and must complete five performance tests in each 5-year calendar period).
- (x) [Reserved]
- (xi) The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit shall follow the procedures specified in paragraph (m) of this section for measuring and calculating carbon usage.
- (3) In place of cadmium and lead testing with EPA Reference Method 29 as an alternative ASTM D6784-02, an owner or operator may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring cadmium and lead emissions discharged to the atmosphere and record the output of the system according to the provisions of paragraphs (n) and (o) of this section.
- (4) In place of mercury testing with EPA Reference Method 29 or as an alternative ASTM D6784-02, an owner or operator may elect to install, calibrate, maintain, and operate a continuous emission monitoring system or a continuous automated sampling system for monitoring mercury emissions discharged to the atmosphere and record the output of the system according to the provisions of paragraphs (n) and (o) of this section, or paragraphs (p) and (q) of this section, as appropriate. The owner or operator who elects to continuously monitor mercury in place of mercury testing with EPA Reference Method 29 or as an alternative ASTM D6784-02 is not required to complete performance testing for mercury as specified in paragraph (d)(2)(ix) of this section.
- (e) The procedures and test methods specified in paragraphs (e)(1) through (e)(14) of this section shall be used for determining compliance with the sulfur dioxide emission limit under §60.52b(b)(1).
- (1) The EPA Reference Method 19, section 4.3, shall be used to calculate the daily geometric average sulfur dioxide emission concentration.
- (2) The EPA Reference Method 19, section 5.4, shall be used to determine the daily geometric average percent reduction in the potential sulfur dioxide emission concentration.
- (3) The owner or operator of an affected facility may request that compliance with the sulfur dioxide emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.
- (4) The owner or operator of an affected facility shall conduct an initial performance test for sulfur dioxide emissions as required under §60.8 of subpart A of this part. Compliance with the sulfur dioxide emission limit (concentration or percent reduction) shall be determined by using the continuous emission monitoring system specified in paragraph (e)(5) of this section to measure sulfur dioxide and calculating a 24-hour daily geometric average emission concentration or a 24-hour daily geometric average percent reduction using EPA Reference Method 19, sections 4.3 and 5.4, as applicable.
- (5) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring sulfur dioxide emissions discharged to the atmosphere and record the output of the system.
- (6) Following the date that the initial performance test for sulfur dioxide is completed or is required to be completed under §60.8 of subpart A of this part, compliance with the sulfur dioxide emission limit shall be determined based on the 24-hour daily geometric average of the hourly arithmetic average emission concentrations using continuous

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emission monitoring system outlet data if compliance is based on an emission concentration, or continuous emission monitoring system inlet and outlet data if compliance is based on a percent reduction.

- (7) At a minimum, valid continuous monitoring system hourly averages shall be obtained as specified in paragraphs (e)(7)(i) and (e)(7)(ii) for 90 percent of the operating hours per calendar quarter and 95 percent of the operating days per calendar year that the affected facility is combusting municipal solid waste.
    - (i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.
    - (ii) Each sulfur dioxide 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
  - (8) The 1-hour arithmetic averages required under paragraph (e)(6) of this section shall be expressed in parts per million corrected to 7 percent oxygen (dry basis) and used to calculate the 24-hour daily geometric average emission concentrations and daily geometric average emission percent reductions. The 1-hour arithmetic averages shall be calculated using the data points required under §60.13(e)(2) of subpart A of this part.
  - (9) All valid continuous emission monitoring system data shall be used in calculating average emission concentrations and percent reductions even if the minimum continuous emission monitoring system data requirements of paragraph (e)(7) of this section are not met.
  - (10) The procedures under §60.13 of subpart A of this part shall be followed for installation, evaluation, and operation of the continuous emission monitoring system.
  - (11) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the municipal waste combustor as specified under §60.8 of subpart A of this part.
  - (12) The continuous emission monitoring system shall be operated according to Performance Specification 2 in appendix B of this part. For sources that have actual inlet emissions less than 100 parts per million dry volume, the relative accuracy criterion for inlet sulfur dioxide continuous emission monitoring systems should be no greater than 20 percent of the mean value of the reference method test data in terms of the units of the emission standard, or 5 parts per million dry volume absolute value of the mean difference between the reference method and the continuous emission monitoring systems, whichever is greater.
    - (i) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 2 in appendix B of this part, sulfur dioxide and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (e)(12)(i)(A) and (e)(12)(i)(B) of this section.
      - (A) For sulfur dioxide, EPA Reference Method 6, 6A, or 6C, or as an alternative ASME PTC-19-10-1981—Part 10, shall be used.
      - (B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC-19-10-1981—Part 10, as applicable, shall be used.
    - (ii) The span value of the continuous emissions monitoring system at the inlet to the sulfur dioxide control device shall be 125 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit. The span value of the continuous emission monitoring system at the outlet of the sulfur dioxide control device shall be 50 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit.
  - (13) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 1 in appendix F of this part.
  - (14) When sulfur dioxide emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and/or zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by EPA or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 90 percent of the hours per calendar quarter and 95 percent of the hours per calendar year that the affected facility is operated and combusting municipal solid waste.
- (f) The procedures and test methods specified in paragraphs (f)(1) through (f)(8) of this section shall be used for determining compliance with the hydrogen chloride emission limit under §60.52b(b)(2).

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- (1) The EPA Reference Method 26 or 26A, as applicable, shall be used to determine the hydrogen chloride emission concentration. The minimum sampling time shall be 1 hour.
- (2) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each test run for hydrogen chloride required by paragraph (f)(1) of this section.
- (3) The percent reduction in potential hydrogen chloride emissions (% P<sub>HCl</sub>) is computed using equation 2:

$$(\% P_{HCl}) = \left( \frac{E_i - E_o}{E_i} \right) \times 100 \quad (2)$$

where:

%P<sub>HCl</sub> = percent reduction of the potential hydrogen chloride emissions achieved.

E<sub>i</sub> = potential hydrogen chloride emission concentration measured at the control device inlet, corrected to 7 percent oxygen (dry basis).

E<sub>o</sub> = controlled hydrogen chloride emission concentration measured at the control device outlet, corrected to 7 percent oxygen (dry basis).

- (4) The owner or operator of an affected facility may request that compliance with the hydrogen chloride emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.
  - (5) As specified under §60.8 of subpart A of this part, all performance tests shall consist of three test runs. The average of the hydrogen chloride emission concentrations or percent reductions from the three test runs is used to determine compliance.
  - (6) The owner or operator of an affected facility shall conduct an initial performance test for hydrogen chloride as required under §60.8 of subpart A of this part.
  - (7) Following the date that the initial performance test for hydrogen chloride is completed or is required to be completed under §60.8 of subpart A of this part, the owner or operator of an affected facility shall conduct a performance test for hydrogen chloride emissions on an annual basis (no more than 12 calendar months following the previous performance test).
  - (8) In place of hydrogen chloride testing with EPA Reference Method 26 or 26A, an owner or operator may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring hydrogen chloride emissions discharged to the atmosphere and record the output of the system according to the provisions of paragraphs (n) and (o) of this section.
- (g) The procedures and test methods specified in paragraphs (g)(1) through (g)(9) of this section shall be used to determine compliance with the limits for dioxin/furan emissions under §60.52b(c).
- (1) The EPA Reference Method 1 shall be used for determining the location and number of sampling points.
  - (2) The EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC-19-10-1981—Part 10, as applicable, shall be used for flue gas analysis.
  - (3) The EPA Reference Method 23 shall be used for determining the dioxin/furan emission concentration.
    - (i) The minimum sample time shall be 4 hours per test run.
    - (ii) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 23 test run for dioxins/furans.
  - (4) The owner or operator of an affected facility shall conduct an initial performance test for dioxin/furan emissions in accordance with paragraph (g)(3) of this section, as required under §60.8 of subpart A of this part.
  - (5) Following the date that the initial performance test for dioxins/furans is completed or is required to be completed under §60.8 of subpart A of this part, the owner or operator of an affected facility shall conduct performance tests



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for dioxin/furan emissions in accordance with paragraph (g)(3) of this section, according to one of the schedules specified in paragraphs (g)(5)(i) through (g)(5)(iii) of this section.

- (i) For affected facilities, performance tests shall be conducted on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period).
  - (ii) For the purpose of evaluating system performance to establish new operating parameter levels, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions, the owner or operator of an affected facility that qualifies for the performance testing schedule specified in paragraph (g)(5)(iii) of this section, may test one unit for dioxin/furan and apply the dioxin/furan operating parameters to similarly designed and equipped units on site by meeting the requirements specified in paragraphs (g)(5)(ii)(A) through (g)(5)(ii)(D) of this section.
    - (A) Follow the testing schedule established in paragraph (g)(5)(iii) of this section. For example, each year a different affected facility at the municipal waste combustor plant shall be tested, and the affected facilities at the plant shall be tested in sequence ( *e.g.* , unit 1, unit 2, unit 3, as applicable).
    - (B) Upon meeting the requirements in paragraph (g)(5)(iii) of this section for one affected facility, the owner or operator may elect to apply the average carbon mass feed rate and associated carbon injection system operating parameter levels for dioxin/furan as established in paragraph (m) of this section to similarly designed and equipped units on site.
    - (C) Upon testing each subsequent unit in accordance with the testing schedule established in paragraph (g)(5)(iii) of this section, the dioxin/furan and mercury emissions of the subsequent unit shall not exceed the dioxin/furan and mercury emissions measured in the most recent test of that unit prior to the revised operating parameter levels.
    - (D) The owner or operator of an affected facility that selects to follow the performance testing schedule specified in paragraph (g)(5)(iii) of this section and apply the carbon injection system operating parameters to similarly designed and equipped units on site shall follow the procedures specified in §60.59b(g)(4) for reporting.
  - (iii) Where all performance tests over a 2-year period indicate that dioxin/furan emissions are less than or equal to 7 nanograms per dry standard cubic meter (total mass) for all affected facilities located within a municipal waste combustor plant, the owner or operator of the municipal waste combustor plant may elect to conduct annual performance tests for one affected facility (i.e., unit) per year at the municipal waste combustor plant. At a minimum, a performance test for dioxin/furan emissions shall be conducted on a calendar year basis (no less than 9 calendar months and no more than 15 months following the previous performance test; and must complete five performance tests in each 5-year calendar period) for one affected facility at the municipal waste combustor plant. Each year a different affected facility at the municipal waste combustor plant shall be tested, and the affected facilities at the plant shall be tested in sequence ( *e.g.* , unit 1, unit 2, unit 3, as applicable). If each annual performance test continues to indicate a dioxin/furan emission level less than or equal to 7 nanograms per dry standard cubic meter (total mass), the owner or operator may continue conducting a performance test on only one affected facility per calendar year. If any annual performance test indicates either a dioxin/furan emission level greater than 7 nanograms per dry standard cubic meter (total mass), performance tests shall thereafter be conducted annually on all affected facilities at the plant until and unless all annual performance tests for all affected facilities at the plant over a 2-year period indicate a dioxin/furan emission level less than or equal to 7 nanograms per dry standard cubic meter (total mass).
- (6) The owner or operator of an affected facility that selects to follow the performance testing schedule specified in paragraph (g)(5)(iii) of this section shall follow the procedures specified in §60.59b(g)(4) for reporting the selection of this schedule.
  - (7) The owner or operator of an affected facility where activated carbon is used shall follow the procedures specified in paragraph (m) of this section for measuring and calculating the carbon usage rate.

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- (8) The owner or operator of an affected facility may request that compliance with the dioxin/furan emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.
- (9) As specified under §60.8 of subpart A of this part, all performance tests shall consist of three test runs. The average of the dioxin/furan emission concentrations from the three test runs is used to determine compliance.
- (10) In place of dioxin/furan sampling and testing with EPA Reference Method 23, an owner or operator may elect to sample dioxin/furan by installing, calibrating, maintaining, and operating a continuous automated sampling system for monitoring dioxin/furan emissions discharged to the atmosphere, recording the output of the system, and analyzing the sample using EPA Method 23. 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. The owner or operator of an affected facility who elects to continuously sample dioxin/furan emissions instead of sampling and testing using EPA Method 23 shall install, calibrate, maintain, and operate a continuous automated sampling system and shall comply with the requirements specified in paragraphs (p) and (q) of this section.
- (h) The procedures and test methods specified in paragraphs (h)(1) through (h)(12) of this section shall be used to determine compliance with the nitrogen oxides emission limit for affected facilities under §60.52b(d).
- (1) The EPA Reference Method 19, section 4.1, shall be used for determining the daily arithmetic average nitrogen oxides emission concentration.
- (2) The owner or operator of an affected facility may request that compliance with the nitrogen oxides emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.
- (3) The owner or operator of an affected facility subject to the nitrogen oxides limit under §60.52b(d) shall conduct an initial performance test for nitrogen oxides as required under §60.8 of subpart A of this part. Compliance with the nitrogen oxides emission limit shall be determined by using the continuous emission monitoring system specified in paragraph (h)(4) of this section for measuring nitrogen oxides and calculating a 24-hour daily arithmetic average emission concentration using EPA Reference Method 19, section 4.1.
- (4) The owner or operator of an affected facility subject to the nitrogen oxides emission limit under §60.52b(d) shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring nitrogen oxides discharged to the atmosphere, and record the output of the system.
- (5) Following the date that the initial performance test for nitrogen oxides is completed or is required to be completed under §60.8 of subpart A of this part, compliance with the emission limit for nitrogen oxides required under §60.52b(d) shall be determined based on the 24-hour daily arithmetic average of the hourly emission concentrations using continuous emission monitoring system outlet data.
- (6) At a minimum, valid continuous emission monitoring system hourly averages shall be obtained as specified in paragraphs (h)(6)(i) and (h)(6)(ii) of this section for 90 percent of the operating hours per calendar quarter and for 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.
- (i) At least 2 data points per hour shall be used to calculate each 1-hour arithmetic average.
- (ii) Each nitrogen oxides 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
- (7) The 1-hour arithmetic averages required by paragraph (h)(5) of this section shall be expressed in parts per million by volume (dry basis) and used to calculate the 24-hour daily arithmetic average concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under §60.13(e)(2) of subpart A of this part.
- (8) All valid continuous emission monitoring system data must be used in calculating emission averages even if the minimum continuous emission monitoring system data requirements of paragraph (h)(6) of this section are not met.

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- (9) The procedures under §60.13 of subpart A of this part shall be followed for installation, evaluation, and operation of the continuous emission monitoring system. The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the municipal waste combustor unit, as specified under §60.8 of subpart A of this part.
- (10) The owner or operator of an affected facility shall operate the continuous emission monitoring system according to Performance Specification 2 in appendix B of this part and shall follow the procedures and methods specified in paragraphs (h)(10)(i) and (h)(10)(ii) of this section.
- (i) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 2 of appendix B of this part, nitrogen oxides and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (h)(10)(i)(A) and (h)(10)(i)(B) of this section.
- (A) For nitrogen oxides, EPA Reference Method 7, 7A, 7C, 7D, or 7E shall be used.
- (B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC-19-10-1981—Part 10, as applicable, shall be used.
- (ii) The span value of the continuous emission monitoring system shall be 125 percent of the maximum estimated hourly potential nitrogen oxide emissions of the municipal waste combustor unit.
- (11) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure I in appendix F of this part.
- (12) When nitrogen oxides continuous emission data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved by EPA or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 90 percent of the hours per calendar quarter and 95 percent of the hours per calendar year the unit is operated and combusting municipal solid waste.
- (i) The procedures specified in paragraphs (i)(1) through (i)(12) of this section shall be used for determining compliance with the operating requirements under §60.53b.
- (1) Compliance with the carbon monoxide emission limits in §60.53b(a) shall be determined using a 4-hour block arithmetic average for all types of affected facilities except mass burn rotary waterwall municipal waste combustors and refuse-derived fuel stokers.
- (2) For affected mass burn rotary waterwall municipal waste combustors and refuse-derived fuel stokers, compliance with the carbon monoxide emission limits in §60.53b(a) shall be determined using a 24-hour daily arithmetic average.
- (3) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring carbon monoxide at the combustor outlet and record the output of the system and shall follow the procedures and methods specified in paragraphs (i)(3)(i) through (i)(3)(iii) of this section.
- (i) The continuous emission monitoring system shall be operated according to Performance Specification 4A in appendix B of this part.
- (ii) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 4A in appendix B of this part, carbon monoxide and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (i)(3)(ii)(A) and (i)(3)(ii)(B) of this section. For affected facilities subject to the 100 parts per million dry volume carbon monoxide standard, the relative accuracy criterion of 5 parts per million dry volume is calculated as the absolute value of the mean difference between the reference method and continuous emission monitoring systems.
- (A) For carbon monoxide, EPA Reference Method 10, 10A, or 10B shall be used.
- (B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, or ASME PTC-19-10-1981—Part 10 (incorporated by reference, see §60.17 of subpart A of this part), as applicable, shall be used.

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- (iii) The span value of the continuous emission monitoring system shall be 125 percent of the maximum estimated hourly potential carbon monoxide emissions of the municipal waste combustor unit.
- (4) The 4-hour block and 24-hour daily arithmetic averages specified in paragraphs (i)(1) and (i)(2) of this section shall be calculated from 1-hour arithmetic averages expressed in parts per million by volume corrected to 7 percent oxygen (dry basis). The 1-hour arithmetic averages shall be calculated using the data points generated by the continuous emission monitoring system. At least two data points shall be used to calculate each 1-hour arithmetic average.
- (5) The owner or operator of an affected facility may request that compliance with the carbon monoxide emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.
- (6) The procedures specified in paragraphs (i)(6)(i) through (i)(6)(v) of this section shall be used to determine compliance with load level requirements under §60.53b(b).
- (i) The owner or operator of an affected facility with steam generation capability shall install, calibrate, maintain, and operate a steam flow meter or a feedwater flow meter; measure steam (or feedwater) flow in kilograms per hour (or pounds per hour) on a continuous basis; and record the output of the monitor. Steam (or feedwater) flow shall be calculated in 4-hour block arithmetic averages.
- (ii) The method included in the “American Society of Mechanical Engineers Power Test Codes: Test Code for Steam Generating Units, Power Test Code 4.1—1964 (R1991)” section 4 (incorporated by reference, see §60.17 of subpart A of this part) shall be used for calculating the steam (or feedwater) flow required under paragraph (i)(6)(i) of this section. The recommendations in “American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th edition (1971),” chapter 4 (incorporated by reference—see §60.17 of subpart A of this part) shall be followed for design, construction, installation, calibration, and use of nozzles and orifices except as specified in (i)(6)(iii) of this section.
- (iii) Measurement devices such as flow nozzles and orifices are not required to be recalibrated after they are installed.
- (iv) All signal conversion elements associated with steam (or feedwater flow) measurements must be calibrated according to the manufacturer's instructions before each dioxin/furan performance test, and at least once per year.
- (7) To determine compliance with the maximum particulate matter control device temperature requirements under §60.53b(c), the owner or operator of an affected facility shall install, calibrate, maintain, and operate a device for measuring on a continuous basis the temperature of the flue gas stream at the inlet to each particulate matter control device utilized by the affected facility. Temperature shall be calculated in 4-hour block arithmetic averages.
- (8) The maximum demonstrated municipal waste combustor unit load shall be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in §60.52b(c) is achieved. The maximum demonstrated municipal waste combustor unit load shall be the highest 4-hour arithmetic average load achieved during four consecutive hours during the most recent test during which compliance with the dioxin/furan emission limit was achieved. If a subsequent dioxin/furan performance test is being performed on only one affected facility at the MWC plant, as provided in paragraph (g)(5)(iii) of this section, the owner or operator may elect to apply the same maximum municipal waste combustor unit load from the tested facility for all the similarly designed and operated affected facilities at the MWC plant.
- (9) For each particulate matter control device employed at the affected facility, the maximum demonstrated particulate matter control device temperature shall be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in §60.52b(c) is achieved. The maximum demonstrated particulate matter control device temperature shall be the highest 4-hour arithmetic average temperature achieved at the particulate matter control device inlet during four consecutive hours during the most recent test during which compliance with the dioxin/furan limit was achieved. If a subsequent

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dioxin/furan performance test is being performed on only one affected facility at the MWC plant, as provided in paragraph (g)(5)(iii) of this section, the owner or operator may elect to apply the same maximum particulate matter control device temperature from the tested facility for all the similarly designed and operated affected facilities at the MWC plant.

- (10) At a minimum, valid continuous emission monitoring system hourly averages shall be obtained as specified in paragraphs (i)(10)(i) and (i)(10)(ii) of this section for at least 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.
- (i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.
  - (ii) At a minimum, each carbon monoxide 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
- (11) All valid continuous emission monitoring system data must be used in calculating the parameters specified under paragraph (i) of this section even if the minimum data requirements of paragraph (i)(10) of this section are not met. When carbon monoxide continuous emission data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved by EPA or EPA Reference Method 10 to provide, as necessary, the minimum valid emission data.
- (12) Quarterly accuracy determinations and daily calibration drift tests for the carbon monoxide continuous emission monitoring system shall be performed in accordance with procedure 1 in appendix F of this part.
- (j) The procedures specified in paragraphs (j)(1) and (j)(2) of this section shall be used for calculating municipal waste combustor unit capacity as defined under §60.51b.
- (1) For municipal waste combustor units capable of combusting municipal solid waste continuously for a 24-hour period, municipal waste combustor unit capacity shall be calculated based on 24 hours of operation at the maximum charging rate. The maximum charging rate shall be determined as specified in paragraphs (j)(1)(i) and (j)(1)(ii) of this section as applicable.
    - (i) For combustors that are designed based on heat capacity, the maximum charging rate shall be calculated based on the maximum design heat input capacity of the unit and a heating value of 12,800 kilojoules per kilogram for combustors firing refuse-derived fuel and a heating value of 10,500 kilojoules per kilogram for combustors firing municipal solid waste that is not refuse-derived fuel.
    - (ii) For combustors that are not designed based on heat capacity, the maximum charging rate shall be the maximum design charging rate.
  - (2) For batch feed municipal waste combustor units, municipal waste combustor unit capacity shall be calculated as the maximum design amount of municipal solid waste that can be charged per batch multiplied by the maximum number of batches that could be processed in a 24-hour period. The maximum number of batches that could be processed in a 24-hour period is calculated as 24 hours divided by the design number of hours required to process one batch of municipal solid waste, and may include fractional batches (e.g., if one batch requires 16 hours, then 24/16, or 1.5 batches, could be combusted in a 24-hour period). For batch combustors that are designed based on heat capacity, the design heating value of 12,800 kilojoules per kilogram for combustors firing refuse-derived fuel and a heating value of 10,500 kilojoules per kilogram for combustors firing municipal solid waste that is not refuse-derived fuel shall be used in calculating the municipal waste combustor unit capacity in megagrams per day of municipal solid waste.
- (k) The procedures specified in paragraphs (k)(1) through (k)(4) of this section shall be used for determining compliance with the fugitive ash emission limit under §60.55b.
- (1) The EPA Reference Method 22 shall be used for determining compliance with the fugitive ash emission limit under §60.55b. The minimum observation time shall be a series of three 1-hour observations. The observation period shall include times when the facility is transferring ash from the municipal waste combustor unit to the area where ash is stored or loaded into containers or trucks.

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- (2) The average duration of visible emissions per hour shall be calculated from the three 1-hour observations. The average shall be used to determine compliance with §60.55b.
  - (3) The owner or operator of an affected facility shall conduct an initial performance test for fugitive ash emissions as required under §60.8 of subpart A of this part.
  - (4) Following the date that the initial performance test for fugitive ash emissions is completed or is required to be completed under §60.8 of subpart A of this part for an affected facility, the owner or operator shall conduct a performance test for fugitive ash emissions on an annual basis (no more than 12 calendar months following the previous performance test).
- (l) The procedures specified in paragraphs (l)(1) through (l)(3) of this section shall be used to determine compliance with the opacity limit for air curtain incinerators under §60.56b.
- (1) The EPA Reference Method 9 shall be used for determining compliance with the opacity limit.
  - (2) The owner or operator of the air curtain incinerator shall conduct an initial performance test for opacity as required under §60.8 of subpart A of this part.
  - (3) Following the date that the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, the owner or operator of the air curtain incinerator shall conduct a performance test for opacity on an annual basis (no more than 12 calendar months following the previous performance test).
- (m) The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit under §60.52b(a)(5), and/or the dioxin/furan emission limits under §60.52(b)(c), or the dioxin/furan emission level specified in paragraph (g)(5)(iii) of this section shall follow the procedures specified in paragraphs (m)(1) through (m)(4) of this section.
- (1) During the performance tests for dioxins/furans and mercury, as applicable, the owner or operator shall estimate an average carbon mass feed rate based on carbon injection system operating parameters such as the screw feeder speed, hopper volume, hopper refill frequency, or other parameters appropriate to the feed system being employed, as specified in paragraphs (m)(1)(i) and (m)(1)(ii) of this section.
    - (i) An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance test for mercury emissions and each subsequent performance test for mercury emissions.
    - (ii) An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance test for dioxin/furan emissions and each subsequent performance test for dioxin/furan emissions. If a subsequent dioxin/furan performance test is being performed on only one affected facility at the MWC plant, as provided in paragraph (g)(5)(iii) of this section, the owner or operator may elect to apply the same estimated average carbon mass feed rate from the tested facility for all the similarly designed and operated affected facilities at the MWC plant.
  - (2) During operation of the affected facility, the carbon injection system operating parameter(s) that are the primary indicator(s) of the carbon mass feed rate ( e.g. , screw feeder setting) shall be averaged over a block 8-hour period, and the 8-hour block average must equal or exceed the level(s) documented during the performance tests specified under paragraphs (m)(1)(i) and (m)(1)(ii) of this section, except as specified in paragraphs (m)(2)(i) and (m)(2)(ii) of this section.
    - (i) During the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, no limit is applicable for average mass carbon feed rate if the provisions of paragraph (m)(2)(ii) of this section are met.
    - (ii) The limit for average mass carbon feed rate may be waived in accordance with permission granted by the Administrator for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.
  - (3) The owner or operator of an affected facility shall estimate the total carbon usage of the plant (kilograms or pounds) for each calendar quarter by two independent methods, according to the procedures in paragraphs (m)(3)(i) and (m)(3)(ii) of this section.

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- (i) The weight of carbon delivered to the plant.
  - (ii) Estimate the average carbon mass feed rate in kilograms per hour or pounds per hour for each hour of operation for each affected facility based on the parameters specified under paragraph (m)(1) of this section, and sum the results for all affected facilities at the plant for the total number of hours of operation during the calendar quarter.
- (4) Pneumatic injection pressure or other carbon injection system operational indicator shall be used to provide additional verification of proper carbon injection system operation. The operational indicator shall provide an instantaneous visual and/or audible alarm to alert the operator of a potential interruption in the carbon feed that would not normally be indicated by direct monitoring of carbon mass feed rate ( *e.g.* , continuous weight loss feeder) or monitoring of the carbon system operating parameter(s) that are the indicator(s) of carbon mass feed rate ( *e.g.* , screw feeder speed). The carbon injection system operational indicator used to provide additional verification of carbon injection system operation, including basis for selecting the indicator and operator response to the indicator alarm, shall be included in section (e)(6) of the site-specific operating manual required under §60.54b(e) of this subpart.
- (n) In place of periodic manual testing of mercury, cadmium, lead, or hydrogen chloride with EPA Reference Method 26, 26A, 29, or as an alternative ASTM D6784–02 (as applicable), the owner or operator of an affected facility may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring emissions discharged to the atmosphere and record the output of the system. The option to use a continuous emission monitoring system for mercury takes effect on the date of approval of the site-specific monitoring plan required in paragraph (n)(13) and (o) of this section. The option to use a continuous emission monitoring system for cadmium, lead, or hydrogen chloride takes effect on the date a final performance specification applicable to cadmium, lead, or hydrogen chloride monitor is published in the Federal Register or the date of approval of the site-specific monitoring plan required in paragraphs (n)(13) and (o) of this section. The owner or operator of an affected facility who elects to continuously monitor emissions instead of conducting manual performance testing shall install, calibrate, maintain, and operate a continuous emission monitoring system and shall comply with the requirements specified in paragraphs (n)(1) through (n)(13) of this section.
- (1) Notify the Administrator one month before starting use of the system.
  - (2) Notify the Administrator one month before stopping use of the system.
  - (3) The monitor shall be installed, evaluated, and operated in accordance with §60.13 of subpart A of this part.
  - (4) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under §60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of the continuous monitoring system if the owner or operator was previously determining compliance by Method 26, 26A, 29, or as an alternative ASTM D6784–02 (as applicable) performance tests, whichever is later.
  - (5) The owner or operator may request that compliance with the emission limits be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.
  - (6) The owner or operator shall conduct an initial performance test for emissions as required under §60.8 of subpart A of this part. Compliance with the emission limits shall be determined by using the continuous emission monitoring system specified in paragraph (n) of this section to measure emissions and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19, section 12.4.1.
  - (7) Compliance with the emission limits shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data.
  - (8) Beginning on April 28, 2008 for mercury and on the date two years after final performance specifications for cadmium, lead or hydrogen chloride monitors are published in the Federal Register or the date two years after approval of a site-specific monitoring plan, valid continuous monitoring system hourly averages shall be obtained as specified in paragraphs (n)(8)(i) and (n)(8)(ii) of this section for at least 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.

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- (i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.
  - (ii) Each 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
- (9) The 1-hour arithmetic averages required under paragraph (n)(7) of this section shall be expressed in micrograms per dry standard cubic meter for mercury, cadmium, lead and parts per million dry volume for hydrogen chloride corrected to 7 percent oxygen (dry basis) and shall be used to calculate the 24-hour daily arithmetic (block) average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under §60.13(e)(2) of subpart A of this part.
- (10) All valid continuous emission monitoring system data shall be used in calculating average emission concentrations even if the minimum continuous emission monitoring system data requirements of paragraph (n)(8) of this section are not met.
- (11) The continuous emission monitoring system shall be operated according to the performance specifications in paragraphs (n)(11)(i) through (n)(11)(iii) of this section or the approved site-specific monitoring plan.
- (i) For mercury, Performance Specification 12A in appendix B of this part.
  - (ii) [Reserved]
  - (iii) [Reserved]
- (12) During each relative accuracy test run of the continuous emission monitoring system required by the performance specifications in paragraph (n)(11) of this section, mercury, cadmium, lead, hydrogen chloride, and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (n)(12)(i) through (n)(12)(iii) of this section.
- (i) For mercury, cadmium, and lead, EPA Reference Method 29 or as an alternative ASTM D6784-02 shall be used.
  - (ii) For hydrogen chloride, EPA Reference Method 26 or 26A shall be used.
  - (iii) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, as applicable shall be used.
- (13) The owner or operator who elects to install, calibrate, maintain, and operate a continuous emission monitoring system for mercury, cadmium, lead, or hydrogen chloride must develop and implement a site-specific monitoring plan as specified in paragraph (o) of this section. The owner or operator who relies on a performance specification may refer to that document in addressing applicable procedures and criteria.
- (14) When emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, parametric monitoring data shall be obtained by using other monitoring systems as approved by EPA.
- (o) The owner or operator who elects to install, calibrate, maintain, and operate a continuous emission monitoring system for mercury, cadmium, lead, or hydrogen chloride must develop and submit for approval by EPA, a site-specific mercury, cadmium, lead, or hydrogen chloride monitoring plan that addresses the elements and requirements in paragraphs (o)(1) through (o)(7) of this section.
- (1) Installation of the continuous emission monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (*e.g.*, on or downstream of the last control device).
  - (2) Performance and equipment specifications for the sample interface, the pollutant concentration analyzer, and the data collection and reduction system.
  - (3) Performance evaluation procedures and acceptance criteria (*e.g.*, calibrations).
  - (4) Provisions for periods when the continuous emission monitoring system is out of control as described in paragraphs (o)(4)(i) through (o)(4)(iii) of this section.
    - (i) A continuous emission monitoring system is out of control if either of the conditions in paragraphs (o)(4)(i)(A) or (o)(4)(ii)(B) of this section are met.



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- (A) The zero (low-level), mid-level (if applicable), or high-level calibration drift exceeds two times the applicable calibration drift specification in the applicable performance specification or in the relevant standard; or
- (B) The continuous emission monitoring system fails a performance test audit ( e.g. , cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit.
- (ii) When the continuous emission monitoring system is out of control as defined in paragraph (o)(4)(i) of this section, the owner or operator of the affected source shall take the necessary corrective action and shall repeat all necessary tests that indicate that the system is out of control. The owner or operator shall take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour the owner or operator conducts a performance check ( e.g. , calibration drift) that indicates an exceedance of the performance requirements established under this part. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. During the period the continuous emission monitoring system is out of control, recorded data shall not be used in data averages and calculations or to meet any data availability requirements in paragraph (n)(8) of this section.
- (iii) The owner or operator of a continuous emission monitoring system that is out of control as defined in paragraph (o)(4) of this section shall submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken in the annual or semiannual compliance reports required in §60.59b(g) or (h).
- (5) Ongoing data quality assurance procedures for continuous emission monitoring systems as described in paragraphs (o)(5)(i) and (o)(5)(ii) of this section.
- (i) Develop and implement a continuous emission monitoring system quality control program. As part of the quality control program, the owner or operator shall develop and submit to EPA for approval, upon request, a site-specific performance evaluation test plan for the continuous emission monitoring system performance evaluation required in paragraph (o)(5)(ii) of this section. In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the operations described in paragraphs (o)(7)(i)(A) through (o)(7)(i)(F) of this section.
- (A) Initial and any subsequent calibration of the continuous emission monitoring system;
- (B) Determination and adjustment of the calibration drift of the continuous emission monitoring system;
- (C) Preventive maintenance of the continuous emission monitoring system, including spare parts inventory;
- (D) Data recording, calculations, and reporting;
- (E) Accuracy audit procedures, including sampling and analysis methods; and
- (F) Program of corrective action for a malfunctioning continuous emission monitoring system.
- (ii) The performance evaluation test plan shall include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external quality assurance program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data. The internal quality assurance program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of continuous emission monitoring system performance, for example, plans for relative accuracy testing using the appropriate reference method in §60.58b(n)(12) of this section. The external quality assurance program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.
- (6) Conduct a performance evaluation of each continuous emission monitoring system in accordance with the site-specific monitoring plan.
- (7) Operate and maintain the continuous emission monitoring system in continuous operation according to the site-specific monitoring plan.

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- (p) In place of periodic manual testing of dioxin/furan or mercury with EPA Reference Method 23, 29, or as an alternative ASTM D6784-02 (as applicable), the owner or operator of an affected facility may elect to install, calibrate, maintain, and operate a continuous automated sampling system for determining emissions discharged to the atmosphere. This option takes effect on the date a final performance specification applicable to such continuous automated sampling systems is published in the Federal Register or the date of approval of a site-specific monitoring plan required in paragraphs (p)(10) and (q) of this section. The owner or operator of an affected facility who elects to use a continuous automated sampling system to determine emissions instead of conducting manual performance testing shall install, calibrate, maintain, and operate the sampling system and conduct analyses in compliance with the requirements specified in paragraphs (p)(1) through (p)(12) of this section.
- (1) Notify the Administrator one month before starting use of the system.
  - (2) Notify the Administrator one month before stopping use of the system.
  - (3) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under §60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of the continuous monitoring system if the owner or operator was previously determining compliance by manual performance testing using Method 23, 29, or as an alternative ASTM D6784-02 (as applicable), whichever is later.
  - (4) The owner or operator may request that compliance with the emission limits be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.
  - (5) The owner or operator shall conduct an initial performance test for emissions as required under §60.8 of subpart A of this part. Compliance with the emission limits shall be determined by using the continuous automated sampling system specified in paragraph (p) of this section to collect integrated samples and analyze emissions for the time period specified in paragraphs (p)(5)(i) and (ii) of this section.
    - (i) For dioxin/furan, the continuous automated sampling system shall collect an integrated sample over each 2-week period. The collected sample shall be analyzed using Method 23.
    - (ii) For mercury, the continuous automated sampling system shall collect an integrated sample over each 24-hour daily period and the sample shall be analyzed according to the applicable final performance specification or the approved site-specific monitoring plan required by paragraph (q) of this section.
  - (6) Compliance with the emission limits shall be determined based on 2-week emission concentrations for dioxin/furan and on the 24-hour daily emission concentrations for mercury using samples collected at the system outlet. The emission concentrations shall be expressed in nanograms per dry standard cubic meter (total mass) for dioxin/furan and micrograms per dry standard cubic meter for mercury, corrected to 7 percent oxygen (dry basis).
  - (7) Beginning on the date two years after the respective final performance specification for continuous automated sampling systems for dioxin/furan or mercury is published in the Federal Register or two years after approval of a site-specific monitoring plan, the continuous automated sampling system must be operated and collect emissions for at least 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.
  - (8) All valid data shall be used in calculating emission concentrations.
  - (9) The continuous automated sampling system shall be operated according to the final performance specification in paragraphs (p)(9)(i) or (p)(9)(ii) of this section or the approved site-specific monitoring plan.
    - (i) [Reserved]
    - (ii) [Reserved]
  - (10) The owner or operator who elects to install, calibrate, maintain, and operate a continuous automated sampling system for dioxin/furan or mercury must develop and implement a site-specific monitoring plan as specified in paragraph (q) of this section. The owner or operator who relies on a performance specification may refer to that document in addressing applicable procedures and criteria.

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- (11) When emissions data are not obtained because of continuous automated sampling system breakdowns, repairs, quality assurance checks, or adjustments, parametric monitoring data shall be obtained by using other monitoring systems as approved by EPA.
- (q) The owner or operator who elects to install, calibrate, maintain, and operate a continuous automated sampling system for dioxin/furan or mercury must develop and submit for approval by EPA, a site-specific monitoring plan that has sufficient detail to assure the validity of the continuous automated sampling system data and that addresses the elements and requirements in paragraphs (q)(1) through (q)(7) of this section.
- (1) Installation of the continuous automated sampling system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions ( *e.g.* , on or downstream of the last control device).
  - (2) Performance and equipment specifications for the sample interface, the pollutant concentration analytical method, and the data collection system.
  - (3) Performance evaluation procedures and acceptance criteria.
  - (4) Provisions for periods when the continuous automated sampling system is malfunctioning or is out of control as described in paragraphs (q)(4)(i) through (q)(4)(iii) of this section.
    - (i) The site-specific monitoring plan shall identify criteria for determining that the continuous automated sampling system is out of control. This shall include periods when the sampling system is not collecting a representative sample or is malfunctioning, or when the analytical method does not meet site-specific quality criteria established in paragraph (q)(5) of this section.
    - (ii) When the continuous automated sampling system is out of control as defined in paragraph (q)(4)(i) of this section, the owner or operator shall take the necessary corrective action and shall repeat all necessary tests that indicate that the system is out of control. The owner or operator shall take corrective action and conduct retesting until the performance requirements are within the applicable limits. The out-of-control period includes all hours that the sampling system was not collecting a representative sample or was malfunctioning, or hours represented by a sample for which the analysis did not meet the relevant quality criteria. Emissions data obtained during an out-of-control period shall not be used in determining compliance with the emission limits or to meet any data availability requirements in paragraph (p)(8) of this section.
    - (iii) The owner or operator of a continuous automated sampling system that is out of control as defined in paragraph (q)(4) of this section shall submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken in the annual or semiannual compliance reports required in §60.59b(g) or (h).
  - (5) Ongoing data quality assurance procedures for continuous automated sampling systems as described in paragraphs (q)(5)(i) and (q)(5)(ii) of this section.
    - (i) Develop and implement a continuous automated sampling system and analysis quality control program. As part of the quality control program, the owner or operator shall develop and submit to EPA for approval, upon request, a site-specific performance evaluation test plan for the continuous automated sampling system performance evaluation required in paragraph (q)(5)(ii) of this section. In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the operations described in paragraphs (q)(7)(i)(A) through (q)(7)(i)(F) of this section.
      - (A) Correct placement, installation of the continuous automated sampling system such that the system is collecting a representative sample of gas;
      - (B) Initial and subsequent calibration of flow such that the sample collection rate of the continuous automated sampling system is known and verifiable;
      - (C) Procedures to assure representative ( *e.g.* , proportional or isokinetic) sampling;
      - (D) Preventive maintenance of the continuous automated sampling system, including spare parts inventory and procedures for cleaning equipment, replacing sample collection media, or other servicing at the end of each sample collection period;

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- (E) Data recording and reporting, including an automated indicator and recording device to show when the continuous automated monitoring system is operating and collecting data and when it is not collecting data;
  - (F) Accuracy audit procedures for analytical methods; and
  - (G) Program of corrective action for a malfunctioning continuous automated sampling system.
- (ii) The performance evaluation test plan shall include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external quality assurance program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data. The internal quality assurance program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of continuous automated sampling system performance, for example, plans for relative accuracy testing using the appropriate reference method in 60.58b(p)(3), and an assessment of quality of analysis results. The external quality assurance program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.
- (6) Conduct a performance evaluation of each continuous automated sampling system in accordance with the site-specific monitoring plan.
  - (7) Operate and maintain the continuous automated sampling system in continuous operation according to the site-specific monitoring plan.

[60 FR 65419, Dec. 19, 1995, as amended at 62 FR 45126, Aug. 25, 1997; 65 FR 61753, Oct. 17, 2000; 66 FR 57827, Nov. 16, 2001; 71 FR 27337, May 10, 2006]

**§ 60.59b Reporting and recordkeeping requirements.**

- (a) The owner or operator of an affected facility with a capacity to combust greater than 250 tons per day shall submit, on or before the date the application for a construction permit is submitted under 40 CFR part 51, subpart I, or part 52, as applicable, the items specified in paragraphs (a)(1) through (a)(4) of this section.
  - (1) The preliminary and final draft materials separation plans required by §60.57b(a)(1) and (a)(5).
  - (2) A copy of the notification of the public meeting required by §60.57b(a)(1)(ii).
  - (3) A transcript of the public meeting required by §60.57b(a)(2).
  - (4) A copy of the document summarizing responses to public comments required by §60.57b(a)(3).
- (b) The owner or operator of an affected facility with a capacity to combust greater than 250 tons per day shall submit a notification of construction, which includes the information specified in paragraphs (b)(1) through (b)(5) of this section.
  - (1) Intent to construct.
  - (2) Planned initial startup date.
  - (3) The types of fuels that the owner or operator plans to combust in the affected facility.
  - (4) The municipal waste combustor unit capacity, and supporting capacity calculations prepared in accordance with §60.58b(j).
  - (5) Documents associated with the siting requirements under §60.57b (a) and (b), as specified in paragraphs (b)(5)(i) through (b)(5)(v) of this section.
    - (i) The siting analysis required by §60.57b (b)(1) and (b)(2).
    - (ii) The final materials separation plan for the affected facility required by §60.57b(a)(10).
    - (iii) A copy of the notification of the public meeting required by §60.57b(b)(3)(ii).
    - (iv) A transcript of the public meeting required by §60.57b(b)(4).
    - (v) A copy of the document summarizing responses to public comments required by §60.57b (a)(9) and (b)(5).

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- (c) The owner or operator of an air curtain incinerator subject to the opacity limit under §60.56b shall provide a notification of construction that includes the information specified in paragraphs (b)(1) through (b)(4) of this section.
- (d) The owner or operator of an affected facility subject to the standards under §§60.52b, 60.53b, 60.54b, 60.55b, and 60.57b shall maintain records of the information specified in paragraphs (d)(1) through (d)(15) of this section, as applicable, for each affected facility for a period of at least 5 years.
- (1) The calendar date of each record.
- (2) The emission concentrations and parameters measured using continuous monitoring systems as specified under paragraphs (d)(2)(i) and (d)(2)(ii) of this section.
- (i) The measurements specified in paragraphs (d)(2)(i)(A) through (d)(2)(i)(F) of this section shall be recorded and be available for submittal to the Administrator or review on site by an EPA or State inspector.
- (A) All 6-minute average opacity levels as specified under §60.58b(c).
- (B) All 1-hour average sulfur dioxide emission concentrations as specified under §60.58b(e).
- (C) All 1-hour average nitrogen oxides emission concentrations as specified under §60.58b(h).
- (D) All 1-hour average carbon monoxide emission concentrations, municipal waste combustor unit load measurements, and particulate matter control device inlet temperatures as specified under §60.58b(i).
- (E) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing using EPA manual test methods, all 1-hour average particulate matter, cadmium, lead, mercury, or hydrogen chloride emission concentrations as specified under §60.58b(n).
- (ii) The average concentrations and percent reductions, as applicable, specified in paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(F) of this section shall be computed and recorded, and shall be available for submittal to the Administrator or review on-site by an EPA or State inspector.
- (A) All 24-hour daily geometric average sulfur dioxide emission concentrations and all 24-hour daily geometric average percent reductions in sulfur dioxide emissions as specified under §60.58b(e).
- (B) All 24-hour daily arithmetic average nitrogen oxides emission concentrations as specified under §60.58b(h).
- (C) All 4-hour block or 24-hour daily arithmetic average carbon monoxide emission concentrations, as applicable, as specified under §60.58b(i).
- (D) All 4-hour block arithmetic average municipal waste combustor unit load levels and particulate matter control device inlet temperatures as specified under §60.58b(i).
- (E) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing using EPA manual test methods, all 24-hour daily arithmetic average particulate matter, cadmium, lead, mercury, or hydrogen chloride emission concentrations as specified under §60.58b(n).
- (F) For owners and operators who elect to use a continuous automated sampling system to monitor mercury or dioxin/furan instead of conducting performance testing using EPA manual test methods, all integrated 24-hour mercury concentrations or all integrated 2-week dioxin/furan concentrations as specified under §60.586(p).
- (3) Identification of the calendar dates when any of the average emission concentrations, percent reductions, or operating parameters recorded under paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(F) of this section, or the opacity levels recorded under paragraph (d)(2)(i)(A) of this section are above the applicable limits, with reasons for such exceedances and a description of corrective actions taken.
- (4) For affected facilities that apply activated carbon for mercury or dioxin/furan control, the records specified in paragraphs (d)(4)(i) through (d)(4)(v) of this section.

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- (i) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated as required under §60.58b(m)(1)(i) of this section during the initial mercury performance test and all subsequent annual performance tests, with supporting calculations.
  - (ii) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated as required under §60.58b(m)(1)(ii) of this section during the initial dioxin/furan performance test and all subsequent annual performance tests, with supporting calculations.
  - (iii) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated for each hour of operation as required under §60.58b(m)(3)(ii) of this section, with supporting calculations.
  - (iv) The total carbon usage for each calendar quarter estimated as specified by paragraph 60.58b(m)(3) of this section, with supporting calculations.
  - (v) Carbon injection system operating parameter data for the parameter(s) that are the primary indicator(s) of carbon feed rate (e.g., screw feeder speed).
- (5) [Reserved]
- (6) Identification of the calendar dates and times (hours) for which valid hourly data specified in paragraphs (d)(6)(i) through (d)(6)(vi) of this section have not been obtained, or continuous automated sampling systems were not operated as specified in paragraph (d)(6)(vii) of this section, including reasons for not obtaining the data and a description of corrective actions taken.
- (i) Sulfur dioxide emissions data;
  - (ii) Nitrogen oxides emissions data;
  - (iii) Carbon monoxide emissions data;
  - (iv) Municipal waste combustor unit load data;
  - (v) Particulate matter control device temperature data; and
  - (vi) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of performance testing by EPA manual test methods, particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions data.
  - (vii) For owners and operators who elect to use continuous automated sampling systems for dioxins/furans or mercury as allowed under “60.58b(p) and (q), dates and times when the sampling systems were not operating or were not collecting a valid sample.
- (7) Identification of each occurrence that sulfur dioxide emissions data, nitrogen oxides emissions data, particulate matter emissions data, cadmium emissions data, lead emissions data, mercury emissions data, hydrogen chloride emissions data, or dioxin/furan emissions data (for owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride, or who elect to use continuous automated sampling systems for dioxin/furan or mercury emissions, instead of conducting performance testing using EPA manual test methods) or operational data ( *i.e.* , carbon monoxide emissions, unit load, and particulate matter control device temperature) have been excluded from the calculation of average emission concentrations or parameters, and the reasons for excluding the data.
- (8) The results of daily drift tests and quarterly accuracy determinations for sulfur dioxide, nitrogen oxides, and carbon monoxide continuous emission monitoring systems, as required under appendix F of this part, procedure I.
- (9) The test reports documenting the results of the initial performance test and all annual performance tests listed in paragraphs (d)(9)(i) and (d)(9)(ii) of this section shall be recorded along with supporting calculations.
- (i) The results of the initial performance test and all annual performance tests conducted to determine compliance with the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission limits.
  - (ii) For the initial dioxin/furan performance test and all subsequent dioxin/furan performance tests recorded under paragraph (d)(9)(i) of this section, the maximum demonstrated municipal waste combustor unit load and

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maximum demonstrated particulate matter control device temperature (for each particulate matter control device).

- (10) An owner or operator who elects to continuously monitor emissions instead of performance testing by EPA manual methods must maintain records specified in paragraphs (10)(i) through (iii) of this section.
- (i) For owners and operators who elect to continuously monitor particulate matter instead of conducting performance testing using EPA manual test methods, as required under appendix F of this part, procedure 2, the results of daily drift tests and quarterly accuracy determinations for particulate matter.
  - (ii) For owners and operators who elect to continuously monitor cadmium, lead, mercury, or hydrogen chloride instead of conducting EPA manual test methods, the results of all quality evaluations, such as daily drift tests and periodic accuracy determinations, specified in the approved site-specific performance evaluation test plan required by §60.58b(o)(5).
  - (iii) For owners and operators who elect to use continuous automated sampling systems for dioxin/furan or mercury, the results of all quality evaluations specified in the approved site-specific performance evaluation test plan required by §60.58b(q)(5).
- (11) For each affected facility subject to the siting provisions under §60.57b, the siting analysis, the final materials separation plan, a record of the location and date of the public meetings, and the documentation of the responses to public comments received at the public meetings.
- (12) The records specified in paragraphs (d)(12)(i) through (d)(12)(iv) of this section.
- (i) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been provisionally certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program as required by §60.54b(a) including the dates of initial and renewal certifications and documentation of current certification.
  - (ii) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been fully certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program as required by §60.54b(b) including the dates of initial and renewal certifications and documentation of current certification.
  - (iii) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have completed the EPA municipal waste combustor operator training course or a State-approved equivalent course as required by §60.54b(d) including documentation of training completion.
  - (iv) Records of when a certified operator is temporarily off site. Include two main items:
    - (A) If the certified chief facility operator and certified shift supervisor are off site for more than 12 hours, but for 2 weeks or less, and no other certified operator is on site, record the dates that the certified chief facility operator and certified shift supervisor were off site.
    - (B) When all certified chief facility operators and certified shift supervisors are off site for more than 2 weeks and no other certified operator is on site, keep records of four items:
      - ( 1 ) Time of day that all certified persons are off site.
      - ( 2 ) The conditions that cause those people to be off site.
      - ( 3 ) The corrective actions taken by the owner or operator of the affected facility to ensure a certified chief facility operator or certified shift supervisor is on site as soon as practicable.
      - ( 4 ) Copies of the written reports submitted every 4 weeks that summarize the actions taken by the owner or operator of the affected facility to ensure that a certified chief facility operator or certified shift supervisor will be on site as soon as practicable.
- (13) Records showing the names of persons who have completed a review of the operating manual as required by §60.54b(f) including the date of the initial review and subsequent annual reviews.

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- (14) For affected facilities that apply activated carbon, identification of the calendar dates when the average carbon mass feed rates recorded under paragraph (d)(4)(iii) of this section were less than either of the hourly carbon feed rates estimated during performance tests for mercury emissions and recorded under paragraphs (d)(4)(i) and (d)(4)(ii) of this section, respectively, with reasons for such feed rates and a description of corrective actions taken. For affected facilities that apply activated carbon, identification of the calendar dates when the average carbon mass feed rates recorded under paragraph (d)(4)(iii) of this section were less than either of the hourly carbon feed rates estimated during performance tests for dioxin/furan emissions and recorded under paragraphs (d)(4)(i) and (d)(4)(ii) of this section, respectively, with reasons for such feed rates and a description of corrective actions taken.
- (15) For affected facilities that apply activated carbon for mercury or dioxin/furan control, identification of the calendar dates when the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate (e.g., screw feeder speed) recorded under paragraph (d)(4)(v) of this section are below the level(s) estimated during the performance tests as specified in §60.58b(m)(1)(i) and §60.58b(m)(1)(ii) of this section, with reasons for such occurrences and a description of corrective actions taken.
- (e) The owner or operator of an air curtain incinerator subject to the opacity limit under §60.56b shall maintain records of results of the initial opacity performance test and subsequent performance tests required by §60.58b(l) for a period of at least 5 years.
- (f) The owner or operator of an affected facility shall submit the information specified in paragraphs (f)(1) through (f)(6) of this section in the initial performance test report.
- (1) The initial performance test data as recorded under paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(D) of this section for the initial performance test for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, and particulate matter control device inlet temperature.
  - (2) The test report documenting the initial performance test recorded under paragraph (d)(9) of this section for particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emissions.
  - (3) The performance evaluation of the continuous emission monitoring system using the applicable performance specifications in appendix B of this part.
  - (4) The maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device inlet temperature(s) established during the initial dioxin/furan performance test as recorded under paragraph (d)(9) of this section.
  - (5) For affected facilities that apply activated carbon injection for mercury control, the owner or operator shall submit the average carbon mass feed rate recorded under paragraph (d)(4)(i) of this section.
  - (6) For those affected facilities that apply activated carbon injection for dioxin/furan control, the owner or operator shall submit the average carbon mass feed rate recorded under paragraph (d)(4)(ii) of this section.
- (g) Following the first year of municipal waste combustor operation, the owner or operator of an affected facility shall submit an annual report that includes the information specified in paragraphs (g)(1) through (g)(5) of this section, as applicable, no later than February 1 of each year following the calendar year in which the data were collected (once the unit is subject to permitting requirements under title V of the Act, the owner or operator of an affected facility must submit these reports semiannually).
- (1) A summary of data collected for all pollutants and parameters regulated under this subpart, which includes the information specified in paragraphs (g)(1)(i) through (g)(1)(v) of this section.
    - (i) A list of the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission levels achieved during the performance tests recorded under paragraph (d)(9) of this section.
    - (ii) A list of the highest emission level recorded for sulfur dioxide, nitrogen oxides, carbon monoxide, particulate matter, cadmium, lead, mercury, hydrogen chloride, and dioxin/furan (for owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, hydrogen chloride, and dioxin/furan emissions instead of conducting performance testing using EPA manual test methods), municipal waste combustor unit load level, and particulate matter control device inlet temperature based on the data recorded under paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(E) of this section.



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- (iii) List the highest opacity level measured, based on the data recorded under paragraph (d)(2)(i)(A) of this section.
- (iv) Periods when valid data were not obtained as described in paragraphs (g)(1)(iv)(A) through (g)(1)(iv)(C) of this section.
- (A) The total number of hours per calendar quarter and hours per calendar year that valid data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, or particulate matter control device temperature data were not obtained based on the data recorded under paragraph (d)(6) of this section.
- (B) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, and hydrogen chloride emissions instead of conducting performance testing using EPA manual test methods, the total number of hours per calendar quarter and hours per calendar year that valid data for particulate matter, cadmium, lead, mercury, and hydrogen chloride were not obtained based on the data recorded under paragraph (d)(6) of this section. For each continuously monitored pollutant or parameter, the hours of valid emissions data per calendar quarter and per calendar year expressed as a percent of the hours per calendar quarter or year that the affected facility was operating and combusting municipal solid waste.
- (C) For owners and operators who elect to use continuous automated sampling systems for dioxin/furan or mercury, the total number of hours per calendar quarter and hours per calendar year that the sampling systems were not operating or were not collecting a valid sample based on the data recorded under paragraph (d)(6)(vii) of this section. Also, the number of hours during which the continuous automated sampling system was operating and collecting a valid sample as a percent of hours per calendar quarter or year that the affected facility was operating and combusting municipal solid waste.
- (v) Periods when valid data were excluded from the calculation of average emission concentrations or parameters as described in paragraphs (g)(1)(v)(A) through (g)(1)(v)(C) of this section.
- (A) The total number of hours that data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature were excluded from the calculation of average emission concentrations or parameters based on the data recorded under paragraph (d)(7) of this section.
- (B) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing using EPA manual test methods, the total number of hours that data for particulate matter, cadmium, lead, mercury, or hydrogen chloride were excluded from the calculation of average emission concentrations or parameters based on the data recorded under paragraph (d)(7) of this section.
- (C) For owners and operators who elect to use continuous automated sampling systems for dioxin/furan or mercury, the total number of hours that data for mercury and dioxin/furan were excluded from the calculation of average emission concentrations or parameters based on the data recorded under paragraph (d)(7) of this section.
- (2) The summary of data reported under paragraph (g)(1) of this section shall also provide the types of data specified in paragraphs (g)(1)(i) through (g)(1)(vi) of this section for the calendar year preceding the year being reported, in order to provide the Administrator with a summary of the performance of the affected facility over a 2-year period.
- (3) The summary of data including the information specified in paragraphs (g)(1) and (g)(2) of this section shall highlight any emission or parameter levels that did not achieve the emission or parameter limits specified under this subpart.
- (4) A notification of intent to begin the reduced dioxin/furan performance testing schedule specified in §60.58b(g)(5)(iii) of this section during the following calendar year and notification of intent to apply the average carbon mass feed rate and associated carbon injection system operating parameter levels as established in §60.58b(m) to similarly designed and equipped units on site.
- (5) Documentation of periods when all certified chief facility operators and certified shift supervisors are off site for more than 12 hours.

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- (h) The owner or operator of an affected facility shall submit a semiannual report that includes the information specified in paragraphs (h)(1) through (h)(5) of this section for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit specified under this subpart, according to the schedule specified under paragraph (h)(6) of this section.
- (1) The semiannual report shall include information recorded under paragraph (d)(3) of this section for sulfur dioxide, nitrogen oxides, carbon monoxide, particulate matter, cadmium, lead, mercury, hydrogen chloride, dioxin/furan (for owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride, or who elect to use continuous automated sampling systems for dioxin/furan or mercury emissions, instead of conducting performance testing using EPA manual test methods) municipal waste combustor unit load level, particulate matter control device inlet temperature, and opacity.
  - (2) For each date recorded as required by paragraph (d)(3) of this section and reported as required by paragraph (h)(1) of this section, the semiannual report shall include the sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, particulate matter control device inlet temperature, or opacity data, as applicable, recorded under paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(D) and (d)(2)(i)(A) of this section, as applicable.
  - (3) If the test reports recorded under paragraph (d)(9) of this section document any particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission levels that were above the applicable pollutant limits, the semiannual report shall include a copy of the test report documenting the emission levels and the corrective actions taken.
  - (4) The semiannual report shall include the information recorded under paragraph (d)(15) of this section for the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate.
  - (5) For each operating date reported as required by paragraph (h)(4) of this section, the semiannual report shall include the carbon feed rate data recorded under paragraph (d)(4)(iii) of this section.
  - (6) Semiannual reports required by paragraph (h) of this section shall be submitted according to the schedule specified in paragraphs (h)(6)(i) and (h)(6)(ii) of this section.
    - (i) If the data reported in accordance with paragraphs (h)(1) through (h)(5) of this section were collected during the first calendar half, then the report shall be submitted by August 1 following the first calendar half.
    - (ii) If the data reported in accordance with paragraphs (h)(1) through (h)(5) of this section were collected during the second calendar half, then the report shall be submitted by February 1 following the second calendar half.
- (i) The owner or operator of an air curtain incinerator subject to the opacity limit under §60.56b shall submit the results of the initial opacity performance test and all subsequent annual performance tests recorded under paragraph (e) of this section. Annual performance tests shall be submitted by February 1 of the year following the year of the performance test.
- (j) All reports specified under paragraphs (a), (b), (c), (f), (g), (h), and (i) of this section shall be submitted as a paper copy, postmarked on or before the submittal dates specified under these paragraphs, and maintained onsite as a paper copy for a period of 5 years.
- (k) All records specified under paragraphs (d) and (e) of this section shall be maintained onsite in either paper copy or computer-readable format, unless an alternative format is approved by the Administrator.
- (l) If the owner or operator of an affected facility would prefer a different annual or semiannual date for submitting the periodic reports required by paragraphs (g), (h) and (i) of this section, then the dates may be changed by mutual agreement between the owner or operator and the Administrator according to the procedures specified in §60.19(c) of subpart A of this part.
- (m) Owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride, or who elect to use continuous automated sampling systems for dioxin/furan or mercury emissions, instead of conducting performance testing using EPA manual test methods must notify the Administrator one month prior to starting or stopping use of the particulate matter, cadmium, lead, mercury, hydrogen chloride, and dioxin/furan continuous emission monitoring systems or continuous automated sampling systems.

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- (n) *Additional recordkeeping and reporting requirements for affected facilities with continuous cadmium, lead, mercury, or hydrogen chloride monitoring systems.* In addition to complying with the requirements specified in paragraphs (a) through (m) of this section, the owner or operator of an affected source who elects to install a continuous emission monitoring system for cadmium, lead, mercury, or hydrogen chloride as specified in §60.58b(n), shall maintain the records in paragraphs (n)(1) through (n)(10) of this section and report the information in paragraphs (n)(11) through (n)(12) of this section, relevant to the continuous emission monitoring system:
- (1) All required continuous emission monitoring measurements (including monitoring data recorded during unavoidable continuous emission monitoring system breakdowns and out-of-control periods);
  - (2) The date and time identifying each period during which the continuous emission monitoring system was inoperative except for zero (low-level) and high-level checks;
  - (3) The date and time identifying each period during which the continuous emission monitoring system was out of control, as defined in §60.58b(o)(4);
  - (4) The specific identification (*i.e.*, the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the standard, that occurs during startups, shutdowns, and malfunctions of the affected source;
  - (5) The specific identification (*i.e.*, the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the standard, that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;
  - (6) The nature and cause of any malfunction (if known);
  - (7) The corrective action taken to correct any malfunction or preventive measures adopted to prevent further malfunctions;
  - (8) The nature of the repairs or adjustments to the continuous emission monitoring system that was inoperative or out of control;
  - (9) All procedures that are part of a quality control program developed and implemented for the continuous emission monitoring system under §60.58b(o);
  - (10) When more than one continuous emission monitoring system is used to measure the emissions from one affected source (*e.g.*, multiple breechings, multiple outlets), the owner or operator shall report the results as required for each continuous emission monitoring system.
  - (11) Submit to EPA for approval, the site-specific monitoring plan required by §60.58b(n)(13) and §60.58b(o), including the site-specific performance evaluation test plan for the continuous emission monitoring system required by §60.58b(o)(5). The owner or operator shall maintain copies of the site-specific monitoring plan on record for the life of the affected source to be made available for inspection, upon request, by the Administrator. If the site-specific monitoring plan is revised and approved, the owner or operator shall keep previous (*i.e.*, superseded) versions of the plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan.
  - (12) Submit information concerning all out-of-control periods for each continuous emission monitoring system, including start and end dates and hours and descriptions of corrective actions taken, in the annual or semiannual reports required in paragraphs (g) or (h) of this section.
- (o) *Additional recordkeeping and reporting requirements for affected facilities with continuous automated sampling systems for dioxin/furan or mercury monitoring.* In addition to complying with the requirements specified in paragraphs (a) through (m) of this section, the owner or operator of an affected source who elects to install a continuous automated sampling system for dioxin/furan or mercury, as specified in §60.58b(p), shall maintain the records in paragraphs (o)(1) through (o)(10) of this section and report the information in (o)(11) and (o)(12) of this section, relevant to the continuous automated sampling system:
- (1) All required 24-hour integrated mercury concentration or 2-week integrated dioxin/furan concentration data (including any data obtained during unavoidable system breakdowns and out-of-control periods);
  - (2) The date and time identifying each period during which the continuous automated sampling system was inoperative;

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- (3) The date and time identifying each period during which the continuous automated sampling system was out of control, as defined in §60.58b(q)(4);
- (4) The specific identification ( *i.e.* , the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the standard, that occurs during startups, shutdowns, and malfunctions of the affected source;
- (5) The specific identification ( *i.e.* , the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the standard, that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;
- (6) The nature and cause of any malfunction (if known);
- (7) The corrective action taken to correct any malfunction or preventive measures adopted to prevent further malfunctions;
- (8) The nature of the repairs or adjustments to the continuous automated sampling system that was inoperative or out of control;
- (9) All procedures that are part of a quality control program developed and implemented for the continuous automated sampling system under §60.58b(q);
- (10) When more than one continuous automated sampling system is used to measure the emissions from one affected source ( *e.g.* , multiple breechings, multiple outlets), the owner or operator shall report the results as required for each system.
- (11) Submit to EPA for approval, the site-specific monitoring plan required by §60.58b(p)(11) and §60.58b(q) including the site-specific performance evaluation test plan for the continuous emission monitoring system required by §60.58(b)(q)(5). The owner or operator shall maintain copies of the site-specific monitoring plan on record for the life of the affected source to be made available for inspection, upon request, by the Administrator. If the site-specific monitoring plan is revised and approved, the owner or operator shall keep previous ( *i.e.* , superseded) versions of the plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan.
- (12) Submit information concerning all out-of-control periods for each continuous automated sampling system, including start and end dates and hours and descriptions of corrective actions taken in the annual or semiannual reports required in paragraphs (g) or (h) of this section.

[60 FR 65419, Dec. 19, 1995, as amended at 62 FR 45121, 45127, Aug. 25, 1997; 71 FR 27345, May 10, 2006]

**REFERENCED ATTACHMENTS.**

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**The Following Attachments Are Included for Applicant Convenience:**

Table 1-1, Summary of Air Pollutant Standards and Terms.

Table 2-1, Summary of Compliance Requirements.

Table H-1, Permit History/ID Number Changes.

U.S. EPA letter dated July 7, 1999 regarding CAM applicability for MWCs.

U.S. EPA letter dated April 6, 2000 regarding Beryllium Containing Wastes.

U.S. EPA e-mail dated January 22, 2009 regarding Testing Schedule for Fugitive Ash and HCl Emissions.

**Table 1, Summary of Air Pollutant Standards and Terms**

Hillsborough County			Revised Draft/Proposed Permit No. 0570261-012-AV							
Hillsborough County Resource Recovery Facility			Facility ID No. 0570261							
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.										
<b>E.U. ID No.</b>	<b>Brief Description</b>									
107	Municipal Waste Combustor & Auxiliary Burners - Unit 4									
Pollutant Name or Parameter	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)	
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY			
PM/PM <sub>10</sub>	MSW	8760	12.0 mg/dscm, corrected to 7% O <sub>2</sub>	3.3		14.45		40 CFR 60.52b(a)(1)(ii) & PSD-FL-369	III.G.9.	
VE (opacity)	MSW	8760	10%, 6-minute average			N/A	N/A	40 CFR 60.52b(a)(2) & PSD-FL-369	III.G.9.	
Cd	MSW	8760	10 ug/dscm, corrected to 7% O <sub>2</sub>					40 CFR 60.52b(a)(3)(ii) & PSD-FL-369	III.G.9.	
Hg	MSW	8760	28 ug/dscm, corrected to 7% O <sub>2</sub> or	0.022			0.1	40 CFR 60.52b(a)(5)(ii) & PSD-FL-369	III.G.9.	
			85% reduction by weight <sup>1</sup>							
Pb	MSW	8760	140 ug/dscm, corrected to 7% O <sub>2</sub>				84.1	40 CFR 60.52b(a)(4)(ii) & PSD-FL-369	III.G.9.	
			26 ppmvd, corrected to 7% O <sub>2</sub> or							
SO <sub>2</sub>	MSW	8760	80% reduction by weight or volume, 24-hour daily geometric mean <sup>1</sup>					40 CFR 60.52b(b)(1) & PSD-FL-369	III.G.9.	
			25 ppmvd, corrected to 7% O <sub>2</sub> or							
HCl	MSW	8760	95% reduction by weight or volume <sup>1</sup>				111.25	40 CFR 60.52b(b)(2) & PSD-FL-369	III.G.9.	
			13 ng/dscm, corrected to 7% O <sub>2</sub>							
Dioxin/Furan	MSW	8760		3.61 x 10 <sup>-5</sup>			1.58 x 10 <sup>-5</sup>	40 CFR 60.52b(c)(1) & PSD-FL-369	III.G.9.	
NO <sub>x</sub>	MSW	8760	110 ppmvd, corrected to 7% O <sub>2</sub> , 24-hour average	58.5				40 CFR 60.52b(d) & PSD-FL-369	III.G.9.	
			90 ppmvd, corrected to 7% O <sub>2</sub> , 12-month rolling average	47.9			209.8	PSD-FL-369	III.G.9.	
CO	MSW	8760	100 ppmvd, corrected to 7% O <sub>2</sub> , 4-hour block average	32.4				40 CFR 60.53b(a) & PSD-FL-369	III.G.9.	
			80 ppmvd, corrected to 7% O <sub>2</sub> , 30-day rolling average	25.9			113.4	PSD-FL-369	III.G.9.	
ammonia slip	MSW	8760	@195-MMBtu/hr: 10 ppmvd; @260 MMBtu/hr: 15 ppmvd; corrected to 7% O <sub>2</sub>					PSD-FL-151E	III.G.9.	
VE - fugitive ash emissions		8760	5% of the observation period (i.e., 9 minutes per 3-hour period)				N/A	N/A	40 CFR 60.55b	III.D.2.
O <sub>2</sub> /CO <sub>2</sub>	MSW	8760	N/A				N/A	N/A	40 CFR 60.58b(b)	III.G.21.
<b>Notes:</b>										
"N/A" represents not applicable.										
* The "Equivalent Emissions" listed are for informational purposes only. The "lbs./hour" equivalent emission values are based on a stack gas flow rate of 73,061 dscfm.										
<sup>1</sup> Whichever is least stringent.										

**Table 2, Summary of Compliance Requirements**

Hillsborough County						Revised Draft/Proposed Permit No. 0570261-012-AV		
Hillsborough County Resource Recovery Facility						Facility ID No. 0570261		
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.								
<b>E.U. ID No.</b>	<b>Brief Description</b>							
107	Municipal Waste Combustor & Auxiliary Burners - Unit 4							
Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	Regulatory Citation(s)		See permit condition(s)
						CMS <sup>1</sup>		
PM/PM <sub>10</sub>	MSW	EPA Method 5	CY, 5 in 5-year period		3 1-hour test runs	No	40 CFR 60.58b(c)(9)	III.G.27. - 29.
VE (opacity)	MSW	EPA Method 9 or COMS	CY, 5 in 5-year period (COMS)		1-hour test	Yes	40 CFR 60.58b(c)(8) & Rule 62-297.310(7)(a)4., F.A.C.	III.G.27. - 29.
Cd	MSW	EPA Method 29	CY, 5 in 5-year period		3 1-hour test runs	No	40 CFR 60.58b(d)(1)(vii)	III.G.27. - 29.
Hg	MSW	EPA Method 29	CY, 5 in 5-year period		3 1-hour test runs	No	40 CFR 60.58b(d)(2)	III.G.27. - 29.
Pb	MSW	EPA Method 29	CY, 5 in 5-year period		3 1-hour test runs	No	40 CFR 60.58b(d)(1)(vii)	III.G.27. - 29.
SO <sub>2</sub>	MSW	CEMS	daily (CEMS)		24-hour daily geometric mean	Yes	40 CFR 60.58b(e)(4)	III.G.27. - 29.
HCl	MSW	EPA Method 26 or 26A	annual <sup>3</sup>		1-hour	No	40 CFR 60.58b(f)(7)	III.G.27. - 29.
Dioxin/Furan	MSW	EPA Method 23	CY, 5 in 5-year period <sup>4</sup>		4-hours	No	40 CFR 60.58b(g)(i)-(iii)	III.G.27. - 29.
NOx	MSW	CEMS	daily (CEMS)		24-hour daily arithmetic average	Yes	40 CFR 60.58b(h)(3)	III.G.27. - 29.
CO	MSW	CEMS	daily (CEMS)		4-hour block average	Yes	40 CFR 60.58b(i)(3)	III.G.27. - 29.
ammonia slip	MSW	EPA Method CTM-027 (Conditional Test Method)	annual		3 1-hour test runs		PSD-FL-369	III.G.27. - 29.
VE - fugitive ash emissions		EPA Method 22	annual <sup>3</sup>		3 1-hour observations	No	40 CFR 60.58b(k)	III.G.27. - 29.
O <sub>2</sub> /CO <sub>2</sub>	MSW	Method 3, 3A, or 3B, or as an alternative ASME PTC-19-10-1981-Part 10	N/A		N/A	Yes	40 CFR 60.58b(b)	III.G.21.
steam flow	MSW		N/A		N/A	Yes	40 CFR 60.58b(i)(6)	III.G.6.
inlet temperature to baghouse			N/A		N/A	Yes	40 CFR 60.58b(i)(7)	III.G.33.
<b>Notes:</b>								
"N/A" represents not applicable.								
"CY" represents calendar year.								
* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.								
<sup>1</sup> CMS [=] continuous monitoring system.								
<sup>3</sup> The CFR contained an error on testing frequency per the 01/22/2009 dated e-mail from U.S. EPA.								
<sup>4</sup> Test at least one MWC unit annually, subject to 40 CFR 60.58b(g) requirements.								

## Appendix H-1: Permit History

Hillsborough County  
Hillsborough County Resource Recovery Facility

Revised Draft/Proposed Permit No. 0570261-012-AV  
Facility ID No. 0570261

E.U. ID No.	Description	Permit No.	Effective Date	Expiration Date	Project Type
All	Facility	0570261-001-AV	10/24/2000	10/24/2005	Initial Title V Permit
001	Unit #1	0570261-002-AC	07/20/2000	12/19/2000	Construction (mod.)
002	Unit #2				
003	Unit #3				
100	Ash Handling				
All	Facility	0570261-003-AV	04/23/2001	10/24/2005	Admin. Correction
106	Dolomitic Lime Storage Silo	0570261-004-AC	03/27/2002	12/31/2002	Construction (new)
All	Facility	0570261-005-AV	04/30/2003	10/24/2005	Revision of Title V Permit
All	Facility	0570261-006-AV	05/29/2007	05/28/2012	Renewal (1 <sup>st</sup> )
107, 108 & 11-112	Unit #4 and Ancillary Equipment	0570261-007-AC/PSD-FL-369	10/02/2006	12/31/2009	Construction (new)
001 to 003	Unit #1, Unit #2, and Unit #3	0570261-008-AC	03/26/2007	05/31/2007	Construction
107	Unit #4	0570261-009-AC/PSD-FL-369A	09/07/2007		Construction (mod.)
107	Unit #4	0570261-010-AC/PSD-FL-369B	09/30/2009	10/01/2010	Construction (mod.)
		0570261-011-AC	NA	NA	Withdrawn
107, 108 & 11-112	Incorporation of Unit #4 and Ancillary Equipment	0570261-012-AV	pending	NA	Revision of Title V Permit
107	Unit #4	0570261-013-AC/PSD-FL-369C	pending	NA	Construction (mod.)
All	Facility	0570261-014-AV			Renewal (2 <sup>nd</sup> )



July 7, 1999

Ms. Maria Zannes  
President  
Integrated Waste Services Association  
1401 H Street, NW, Suite 220  
Washington, DC 20005

Re: Applicability of Maximum Achievable Control Technology Standard Monitoring to Satisfy  
Title V Periodic or Compliance Assurance Monitoring

Dear Ms. Zannes:

This letter is in response to your letter, dated April 22, 1999, in which you seek our views on using monitoring contained in subparts Eb of title 40 of the Code of Federal Regulations (CFR), part 60, and referenced in subpart Cb to satisfy title V periodic monitoring (40 CFR part 70) or compliance assurance monitoring (CAM) (40 CFR part 64) requirements for other applicable requirements under existing air pollution regulations, such as State implementation plans (SIP's). We understand that facility owners are now installing and operating monitoring that satisfies subpart Cb or Eb requirements before those emissions limitations become effective. Your question is whether you can expect that same monitoring to be adequate to show compliance with similar existing emissions limitations and can avoid having to provide additional monitoring to satisfy periodic monitoring or CAM requirements.

The monitoring requirements in subpart Eb are rigorous and specify use of continuous monitoring systems for opacity, for emissions of acid gases, organic gases, and nitrogen oxides, and for operational parameters that serve as surrogates for monitoring compliance particulate matter, dioxins and furans, and metals emissions limits. See generally 40 CFR, sections 60.58b and 60.38b. We expect that in most cases monitoring that complies with the requirements in subpart Eb will also provide the assurance of compliance required by part 70 or part 64 for other emissions limitations or standards for the same or similar pollutants. On the other hand, it is impossible for us to state definitively that monitoring that complies with subpart Eb requirements will provide adequate assurance of compliance for all other emissions limitations or standards. For example, a local or State agency may impose a volatile organic compounds (VOC) emissions limit, an emissions limit not directly addressed in subpart Eb. Whether the monitoring in subpart Eb alone is sufficient to satisfy part 70 or part 64 monitoring requirements for emissions

limitations not addressed in subpart Eb must be evaluated on a case-by-case basis by the permitting authority in the title V permit application review and approval process.

Factors to consider in making this evaluation include whether the other applicable requirements regulate the same or similar pollutants (e.g., metals other than cadmium, mercury, or lead). Other factors include whether different pollutant emission limitations share a common format (e.g., pounds per hour or parts per million) or can be converted easily to a common format (e.g., convert pounds per hour to tons per year). Applying monitoring required in subpart Eb to show compliance with an emission limitation for a pollutant whose emissions are related to those of a regulated pollutant may also be possible (e.g., using the carbon monoxide continuous emissions monitoring system for monitoring for compliance with a VOC emissions limit). Where possible, as determined through the permitting authority on a case-by-case basis, we fully support simplifying monitoring requirements for permits, including through the application of one monitoring approach for multiple emissions limitations of the same pollutant or dissimilar pollutants.

Should you have questions concerning this response, please contact Barrett Parker at (919) 541-5635.

Sincerely,

/s/

Steven J. Hitte  
Group Leader  
Operating Permits Group

cc: Zofia Kosim, OECA  
Barrett Parker, OAQPS  
Walt Stevenson, OAQPS  
Peter Westlin, OAQPS  
Title V Contacts, Regions I-X



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

APR 06 2000

4APT-ARB

Mr. Howard L. Rhodes, Director  
Department of Environmental Protection  
Division of Air Resources Management  
Mail Station 5500  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

RECEIVED

APR 1 2000

DIVISION OF AIR  
RESOURCES MANAGEMENT

SUBJ: Beryllium-Containing Wastes

Dear Mr. Rhodes:

Thank you for your correspondence, dated March 28, 2000, requesting an Environmental Protection Agency (EPA) determination regarding the applicability of the national emission standard for beryllium (40 C.F.R. part 61, subpart C) to municipal waste combustor (MWC) units subject to the emission guideline requirements of 40 C.F.R. part 60, subpart Cb. The question being addressed is whether a MWC unit is subject to the beryllium standard, because their air permit contains an emission limit for beryllium, although the unit does not accept or combust beryllium-containing wastes (as defined under subpart C).

Existing MWC units with a capacity to combust greater than 250 tons per day of municipal solid waste (MSW) are subject to 40 CFR part 60, subpart Cb (except as exempted in §60.32b). Pursuant to subpart Cb:

“MSW” is defined as household, commercial/retail, and institutional waste. Household waste includes material discarded by single and multiple residential dwellings, hotels, motels, and other similar permanent or temporary housing establishments or facilities. Commercial/retail waste includes material discarded by stores, offices, restaurants, warehouses, nonmanufacturing activities at industrial facilities, and other similar establishments or facilities. Institutional waste includes material discarded by schools, nonmedical waste discarded by hospitals, material discarded by nonmanufacturing activities at prisons and government facilities, and material discarded by similar establishments or facilities. Household, commercial/retail, and institutional waste does not include used oil, sewage sludge, wood pallets, construction, renovation and demolition wastes (including but not limited to railroad ties and telephone poles), clean wood, industrial process or manufacturing waste, medical waste, or motor vehicles (including motor vehicle parts or vehicle fluff). Household, commercial/retail, and institutional wastes include yard waste, refuse-derived fuel, and motor vehicle maintenance materials limited to vehicle batteries and tires (as specified in the rule).

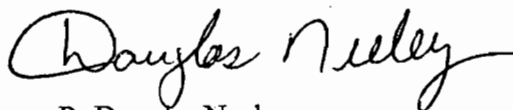
"MWC units" are defined as any setting or equipment that combusts solid, liquid, or gasified MSW including but not limited to, field-erected incinerators (with or without heat recovery), modular incinerators (starved-air or excess-air), boilers (i.e., steam generating units), furnaces (whether suspension-fired, grate-fired, mass-fired, air curtain incinerators, or fluidized bed-fired), and pyrolysis/combustion units. MWC units do not include pyrolysis/combustion units located at a plastics/rubber recycling units, cement kilns firing MSW, or internal combustion engines, gas turbines, or other combustion devices that combust landfill gases collected by landfill gas collection systems.

The provisions of 40 C.F.R. part 61, subpart C, are applicable to extraction plants, ceramic plants, foundries, incinerators, and propellant plants which process beryllium ore, beryllium, beryllium oxide, beryllium alloys, or beryllium-containing waste. Beryllium-containing waste is defined as material contaminated with beryllium and/or beryllium compounds used or generated during any process or operation performed by a source subject to subpart C. For this standard, an incinerator means any furnace used in the process of burning waste for the primary purpose of reducing the volume of the waste by removing combustible matter.

EPA addressed the issue at question in July 16, 1979, correspondence from the Division of Stationary Source Enforcement to EPA Region II regarding the definition of beryllium-containing waste in §61.31 (see Enclosure). According to this determination, beryllium-containing waste does not include materials such as scrap metals and calculators which may be burned at municipal waste incinerators. Beryllium-containing wastes only include wastes generated at ceramic plants, extraction plants, foundries, and propellant plants. However, should any of these wastes be disposed of at a municipal waste incinerator, that incinerator would be subject to the subpart C beryllium regulations. This same conclusion would also apply to MWC units; they would not be subject to subpart C requirements unless the unit combusted beryllium-containing waste from a subpart C affected facility.

Thank you for the opportunity to assist in this determination. If you have any questions, please contact Mr. Scott Davis of the EPA Region 4 staff at (404) 562-9127.

Sincerely,



R. Douglas Neeley  
Chief

Air and Radiation Technology Branch  
Air, Pesticides and Toxics  
Management Division

Enclosure

cc: Don Elias, RTP Environmental Associates  
Walt Stevenson, OAQPS  
Debbie Thomas, OECA

## Determination Detail

---

Control Number: ZC012

**Category:** NESHAP  
**EPA Office:** DSSE  
**Date:** 07/16/1979  
**Title:** Beryllium Containing Wastes  
**Recipient:** Dvorkin, Stephen A.  
**Author:** Reich, Edward E.  
**Comments:**

---

---

---

### **Abstract:**

Does the term "beryllium containing wastes" include materials such as scrap metals and discarded electronic calculators which may be burned in municipal incinerators?

The term beryllium containing wastes includes only those wastes generated by a foundry, extraction plant, ceramic plant, or propellant plant.

---

### **Letter:**

Control Number: ZC12

July 16, 1979

MEMORANDUM

**SUBJECT:** Beryllium Regulations

**FROM:** Director  
Division of Stationary Source Enforcement

**TO:** Stephen A. Dvorkin, Chief  
General Enforcement Branch  
Region II

This is a response to your memo of May 10, 1979, in which you requested a determination regarding the applicability of the beryllium standard to municipal incinerators. Basically, you asked whether the term "beryllium containing waste", as defined in 61.31(g) of the regulations, includes materials such as discarded electronic calculators and scrap metals which may be burned in municipal incinerators or whether it includes only those beryllium wastes generated at ceramic plants, extraction plants, foundries, and propellant plants.

I interpret the term "beryllium containing waste", defined as:

"material contaminated with beryllium and/or beryllium compounds used or generated during any process or operation performed by a source subject to this subpart"

to include only those wastes generated by a foundry, extraction plant, ceramic plant or propellant plant. While one might argue that incinerators are also "sources subject to this subpart" (see above definition) and that any beryllium wastes that contain beryllium which are burned in any incinerator should be subject to the standard, the control techniques and background documents do not support such an interpretation.

Section 3.6 of the document entitled "Control Techniques for Beryllium Air Pollutants" (February 1973) contains a discussion of methods for disposal of beryllium containing wastes. The document clearly indicates that it was the incineration of wastes generated by extraction plants, ceramic plants, propellant plants and foundries that we were concerned about in developing the standard. Moreover, the Economic Impact section of the document "Background Information on Development of National Emission Standards for Hazardous Air Pollutants: Asbestos, Beryllium, and Mercury" (March 1973) discusses the impact of the standard on only four industries: ceramic plants, extraction plants, propellant plants, and foundries. An assumption is made that most of the sources in those four categories will incinerate their own wastes on site. Thus, the cost of controlling emissions from beryllium incinerators seems to be taken into account in estimating the cost of the standard to the four listed source categories. This is one further indication that the standard was only intended to apply to the incineration of wastes generated at foundries, ceramic plants, extraction plants, and propellant plants. There certainly is no indication in either the preambles to the proposed and promulgated standards or any of the background documents that the standard was intended to apply to each municipal incinerator.

While most generators of "beryllium containing waste" may incinerate their wastes on site it is possible that in some cases they may transport the wastes to another facility for disposal. Should the wastes be disposed of at a municipal incinerator, that incinerator would be subject to the beryllium regulations. The regulations apply to any incinerator which burns beryllium containing wastes generated at a foundry, ceramic plant, propellant plant or extraction plant.

If the Regional Offices are not certain where beryllium containing wastes are being incinerated and whether the incineration facilities are in compliance with the NESHAP regulations, it might be desirable to request this information from the owners of beryllium waste generators via a 114 letter. In this manner, a list of incinerators subject to the beryllium standard could be assembled.

Should you wish to discuss this issue further, please contact Libby Scopino of my staff at FTS 755-2564.

Edward E. Reich

cc: Simms Roy, ESED  
Stu Roth, R. II, Enf.

## Sheplak, Scott

---

**From:** Stevenson.Walt@epamail.epa.gov  
**Sent:** Thursday, January 22, 2009 11:45 AM  
**To:** Sheplak, Scott  
**Subject:** Re: May 10, 2006 federal amendments for MWCs

**Attachments:** Pasco Response to RAI.pdf; JohnPower1010056-006-AVRAI.pdf



Pasco  
Response to RAI.pdf6-006-AVRAI

JohnPower1

Scott

Yes -- there was a Federal Register error in the HCl testing schedule and fugitive ash testing schedule. It will be corrected in the future. If more detail is needed on this issue, please call.

take care

Walt Stevenson, PE, BCEE  
919-541-5264

)

Sheplak, Scott

- file -

---

**From:** Sheplak, Scott  
**Sent:** Thursday, January 22, 2009 9:57 AM  
**To:** 'stevenson.walt@epa.gov'  
**Subject:** May 10, 2006 federal amendments for MWCs  
**Attachments:** Pasco Response to RAI.pdf; JohnPower1010056-006-AVRAI.pdf

Mr. Walt Stevenson  
U.S. Environmental Protection Agency  
Research Triangle Park, North Carolina 27711

Dear Mr. Stevenson:

I understand that there was a scrivener's error in the code of federal regulations (CFR) regarding the performance testing change from the May 10, 2006 federal amendments. A few consultants have brought this to my attention (please see the attached letters regarding the testing change). It seems the intent in the federal register (page 27326) was for the testing change to apply to HCL and fugitive ash emissions as well. I am rolling the May 10, 2006 federal amendment changes into Title V permits here in Florida. Was this in fact an error?

Thank you in advance for your reply.

Sincerely,

Scott M. Sheplak  
State of Florida  
Department of Environmental Protection  
Mail Station #5505  
2600 Blair Stone Road  
Tallahassee, FL 32399

850/921-9532  
[Scott.Sheplak@dep.state.fl.us](mailto:Scott.Sheplak@dep.state.fl.us)

1/22/2009



## Friday, Barbara

---

**From:** Friday, Barbara  
**Sent:** Tuesday, November 15, 2011 2:12 PM  
**To:** 'berryp@hillsboroughcounty.org'  
**Cc:** 'ghoag@covantaenergy.com'; 'jgorrie@covantaenergy.com'; 'hauckpl@cdm.com'; 'strobridgede@cdm.com'; 'lee@epchc.org'; Zhang-Torres; Mulkey, Cindy; 'ceron.heather@epa.gov'; 'forney.kathleen@epamail.epa.gov'; Searce, Lynn; Sheplak, Scott; Arif, Syed  
**Subject:** HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)  
**Attachments:** 0570261-012-AV&013-ACSignedCoverLetter&WrittenNoticeofIntent.pdf

Tracking:	Recipient	Delivery	Read
	✓ berryp@hillsboroughcounty.org'		
	✓ ghoag@covantaenergy.com'		
	✓ jgorrie@covantaenergy.com'		
	✓ hauckpl@cdm.com'		
	✓ strobridgede@cdm.com'		
	✓ lee@epchc.org'		
	✓ Zhang-Torres	Delivered: 11/15/2011 2:12 PM	
	✓ Mulkey, Cindy	Delivered: 11/15/2011 2:12 PM	Read: 11/15/2011 2:19 PM
	'ceron.heather@epa.gov'		
	'forney.kathleen@epamail.epa.gov'		
	✓ Searce, Lynn	Delivered: 11/15/2011 2:12 PM	
	✓ Sheplak, Scott	Delivered: 11/15/2011 2:12 PM	
	✓ Arif, Syed	Delivered: 11/15/2011 2:12 PM	

Dear Ms. Berry:

Attached is the official **Revised Notice of Draft/Proposed Permit** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

**Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).**

Attention: Scott Sheplak

Owner/Company Name: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY  
Facility Name: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY  
Project Number: 0570261-012-AV/0570261-013-AC(PSD-FL-369C)  
Permit Status: REVISED DRAFT/PROPOSED  
Permit Activity: PERMIT REVISION  
Facility County: HILLSBOROUGH

Click on the following link to access the permit project documents:

[http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf\\_permit\\_zip\\_files/0570261.012.AV.R\\_pdf.zip](http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0570261.012.AV.R_pdf.zip)

Click on the following link to access the permit project documents:

[http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf\\_permit\\_zip\\_files/0570261.013.AC.R\\_pdf.zip](http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0570261.013.AC.R_pdf.zip)

The Office of Permitting and Compliance is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the "*Air Permit Documents Search*" website at <http://www.dep.state.fl.us/air/emission/apds/default.asp>.

Permit project documents addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Office of Permitting and Compliance.

Note: The attached document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html>.

Regards,

**Barbara Friday**

Office of Permitting and Compliance (OPC)

Division of Air Resources Management

850-717-9095

*Please take a few minutes to share your comments on the service you received from the department by clicking on this link. [DEP Customer Survey](#).*

**Friday, Barbara**

---

**From:** Microsoft Exchange  
**To:** 'berryp@hillsboroughcounty.org'  
**Sent:** Tuesday, November 15, 2011 2:13 PM  
**Subject:** Relayed: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

**Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:**

'berryp@hillsboroughcounty.org'

Subject: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

---

---

Sent by Microsoft Exchange Server 2007

## Friday, Barbara

---

**From:** Berry, Patricia [BerryP@HillsboroughCounty.ORG]  
**To:** Friday, Barbara  
**Sent:** Tuesday, November 15, 2011 2:31 PM  
**Subject:** Read: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

Your message was read on Tuesday, November 15, 2011 2:31:13 PM (GMT-05:00) Eastern Time (US & Canada).

## Friday, Barbara

---

**From:** Berry, Patricia [BerryP@HillsboroughCounty.ORG]  
**Sent:** Tuesday, November 15, 2011 4:44 PM  
**To:** Friday, Barbara  
**Cc:** Johnson, Nate; Caride, E. JoAnn  
**Subject:** RE: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

Please note, I am able to open and view the documents. Thank you.

**Patricia V. Berry**

Solid Waste Management Group Manager  
Public Utilities Department  
Hillsborough County BOCC  
p: 813.272.5977 ext. 43338 | f: 813.272.6224  
c: 813.323.6557  
e: [berryv@hillsboroughcounty.org](mailto:berryv@hillsboroughcounty.org)  
w: <http://www.hillsboroughcounty.org>

Please note: all correspondence to or from this office is subject to Florida's Public Records laws.



---

**From:** Friday, Barbara [<mailto:Barbara.Friday@dep.state.fl.us>]  
**Sent:** Tuesday, November 15, 2011 2:12 PM  
**To:** Berry, Patricia  
**Cc:** 'ghoag@covantaenergy.com'; 'jgorrie@covantaenergy.com'; 'hauckpl@cdm.com'; 'strobridged@cdm.com'; Lee, Diana; Zhang-Torres; Mulkey, Cindy; 'ceron.heather@epa.gov'; 'forney.kathleen@epamail.epa.gov'; Searce, Lynn; Sheplak, Scott; Arif, Syed  
**Subject:** HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

Dear Ms. Berry:

Attached is the official **Revised Notice of Draft/Proposed Permit** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

*Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).*

Attention: Scott Sheplak

Owner/Company Name: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY  
Facility Name: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY  
Project Number: 0570261-012-AV/0570261-013-AC(PSD-FL-369C)  
Permit Status: REVISED DRAFT/PROPOSED  
Permit Activity: PERMIT REVISION  
Facility County: HILLSBOROUGH

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[http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf\\_permit\\_zip\\_files/0570261.012.AV.R\\_pdf.zip](http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0570261.012.AV.R_pdf.zip)

Click on the following link to access the permit project documents:

[http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf\\_permit\\_zip\\_files/0570261.013.AC.R\\_pdf.zip](http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0570261.013.AC.R_pdf.zip)

The Office of Permitting and Compliance is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the “*Air Permit Documents Search*” website at <http://www.dep.state.fl.us/air/emission/apds/default.asp>.

Permit project documents addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Office of Permitting and Compliance.

Note: The attached document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html>.

Regards,

**Barbara Friday**

Office of Permitting and Compliance (OPC)

Division of Air Resources Management

850-717-9095

Please take a few minutes to share your comments on the service you received from the department by clicking on this link. [DEP Customer Survey](#).

**Friday, Barbara**

---

**From:** Microsoft Exchange  
**To:** 'ghoag@covantaenergy.com'; 'jgorrie@covantaenergy.com'  
**Sent:** Tuesday, November 15, 2011 2:13 PM  
**Subject:** Relayed: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

**Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:**

'ghoag@covantaenergy.com'

'jgorrie@covantaenergy.com'

Subject: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

---

Sent by Microsoft Exchange Server 2007

## Friday, Barbara

---

**From:** Hoag, Glenn [GHoag@CovantaEnergy.com]  
**To:** Friday, Barbara  
**Sent:** Tuesday, November 15, 2011 2:14 PM  
**Subject:** Read: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

Your message was read on Tuesday, November 15, 2011 2:14:16 PM (GMT-05:00) Eastern Time (US & Canada).



## Friday, Barbara

---

**From:** Gorrie, Jason [jgorrie@CovantaEnergy.com]  
**To:** Friday, Barbara  
**Sent:** Tuesday, November 15, 2011 2:50 PM  
**Subject:** Read: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

Your message was read on Tuesday, November 15, 2011 2:50:29 PM (GMT-05:00) Eastern Time (US & Canada).

**Friday, Barbara**

---

**From:** Microsoft Exchange  
**To:** 'hauckpl@cdm.com'; 'strobridgedede@cdm.com'  
**Sent:** Tuesday, November 15, 2011 2:14 PM  
**Subject:** Relayed: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

**Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:**

'hauckpl@cdm.com'

'strobridgedede@cdm.com'

Subject: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

---

Sent by Microsoft Exchange Server 2007

## Friday, Barbara

---

**From:** Hauck, Paul [HauckPL@cdm.com]  
**To:** Friday, Barbara  
**Sent:** Tuesday, November 15, 2011 2:23 PM  
**Subject:** Read: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

Your message was read on Tuesday, November 15, 2011 2:23:18 PM (GMT-05:00) Eastern Time (US & Canada).

## Friday, Barbara

---

**From:** Strobridge, Daniel [StrobridgeDE@CDM.com]  
**To:** Friday, Barbara  
**Sent:** Tuesday, November 15, 2011 2:45 PM  
**Subject:** Read: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

Your message was read on Tuesday, November 15, 2011 2:45:15 PM (GMT-05:00) Eastern Time (US & Canada).

## Friday, Barbara

---

**From:** Strobridge, Daniel [StrobridgeDE@CDM.com]  
**Sent:** Tuesday, November 15, 2011 2:46 PM  
**To:** Friday, Barbara  
**Subject:** RE: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

I have access to the below referenced documents

---

**From:** Friday, Barbara [<mailto:Barbara.Friday@dep.state.fl.us>]  
**Sent:** Tuesday, November 15, 2011 2:12 PM  
**To:** 'berryp@hillsboroughcounty.org'  
**Cc:** 'ghoag@covantaenergy.com'; 'jgorrie@covantaenergy.com'; Hauck, Paul; Strobridge, Daniel; 'lee@epchc.org'; Zhang-Torres; Mulkey, Cindy; 'ceron.heather@epa.gov'; 'forney.kathleen@epamail.epa.gov'; Searce, Lynn; Sheplak, Scott; Arif, Syed  
**Subject:** HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

Dear Ms. Berry:

Attached is the official **Revised Notice of Draft/Proposed Permit** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

*Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).*

Attention: Scott Sheplak

Owner/Company Name: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY  
Facility Name: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY  
Project Number: 0570261-012-AV/0570261-013-AC(PSD-FL-369C)  
Permit Status: REVISED DRAFT/PROPOSED  
Permit Activity: PERMIT REVISION  
Facility County: HILLSBOROUGH

Click on the following link to access the permit project documents:

[http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf\\_permit\\_zip\\_files/0570261.012.AV.R\\_pdf.zip](http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0570261.012.AV.R_pdf.zip)

Click on the following link to access the permit project documents:

[http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf\\_permit\\_zip\\_files/0570261.013.AC.R\\_pdf.zip](http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_zip_files/0570261.013.AC.R_pdf.zip)

The Office of Permitting and Compliance is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the "Air Permit Documents Search" website at <http://www.dep.state.fl.us/air/emission/apds/default.asp>.

Permit project documents addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise

this office of any changes to your e-mail address or that of the Engineer-of-Record. If you have any problems opening the documents or would like further information, please contact the Florida Department of Environmental Protection, Office of Permitting and Compliance.

Note: The attached document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html> .

Regards,

**Barbara Friday**

Office of Permitting and Compliance (OPC)

Division of Air Resources Management

850-717-9095

*Please take a few minutes to share your comments on the service you received from the department by clicking on this link. [DEP Customer Survey](#).*

**Friday, Barbara**

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**From:** Microsoft Exchange  
**To:** 'lee@epchc.org'  
**Sent:** Tuesday, November 15, 2011 2:13 PM  
**Subject:** Relayed: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

**Delivery to these recipients or distribution lists is complete, but delivery notification was not sent by the destination:**

'lee@epchc.org'

**Subject:** HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

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Sent by Microsoft Exchange Server 2007

## Friday, Barbara

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**From:** Lee, Diana [Lee@epchc.org]  
**To:** Friday, Barbara  
**Sent:** Tuesday, November 15, 2011 4:03 PM  
**Subject:** Read: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

Your message was read on Tuesday, November 15, 2011 4:03:00 PM (GMT-05:00) Eastern Time (US & Canada).



## Friday, Barbara

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**From:** Microsoft Exchange  
**To:** Zhang-Torres; Mulkey, Cindy; Searce, Lynn  
**Sent:** Tuesday, November 15, 2011 2:12 PM  
**Subject:** Delivered: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

**Your message has been delivered to the following recipients:**

Zhang-Torres

Mulkey, Cindy

Searce, Lynn

Subject: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

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Sent by Microsoft Exchange Server 2007

## Friday, Barbara

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**From:** Zhang-Torres  
**To:** Friday, Barbara  
**Sent:** Tuesday, November 15, 2011 2:58 PM  
**Subject:** Read: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

Your message was read on Tuesday, November 15, 2011 2:57:54 PM (GMT-05:00) Eastern Time (US & Canada).

## Friday, Barbara

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**From:** Mulkey, Cindy  
**To:** Friday, Barbara  
**Sent:** Tuesday, November 15, 2011 2:19 PM  
**Subject:** Read: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

Your message was read on Tuesday, November 15, 2011 2:18:33 PM (GMT-05:00) Eastern Time (US & Canada).

## Friday, Barbara

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**From:** Searce, Lynn  
**To:** Friday, Barbara  
**Sent:** Tuesday, November 15, 2011 3:28 PM  
**Subject:** Read: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

Your message was read on Tuesday, November 15, 2011 3:27:35 PM (GMT-05:00) Eastern Time (US & Canada).

## Friday, Barbara

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**From:** Microsoft Exchange  
**To:** Sheplak, Scott; Arif, Syed  
**Sent:** Tuesday, November 15, 2011 2:12 PM  
**Subject:** Delivered: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

### Your message has been delivered to the following recipients:

Sheplak, Scott

Arif, Syed

Subject: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

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Sent by Microsoft Exchange Server 2007

## Friday, Barbara

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**From:** Sheplak, Scott  
**To:** Friday, Barbara  
**Sent:** Tuesday, November 15, 2011 2:27 PM  
**Subject:** Read: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

Your message was read on Tuesday, November 15, 2011 2:27:04 PM (GMT-05:00) Eastern Time (US & Canada).

## Friday, Barbara

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**From:** Arif, Syed  
**To:** Friday, Barbara  
**Sent:** Tuesday, November 15, 2011 3:36 PM  
**Subject:** Read: HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY; 0570261-012-AV/0570261-013-AC(PSD-FL-369C)

Your message was read on Tuesday, November 15, 2011 3:36:10 PM (GMT-05:00) Eastern Time (US & Canada).