INDEX

Part A – General Provisions

(1) The following Air and Radiation Management Administration (ARMA) permit-to-construct applications and supplemental information are incorporated into this permit by reference:

(a) Application for Prevention of Significant Deterioration (PSD), and Non-Attainment New Source Review (NA-NSR) approvals received on February 15, 2011 and amendments received on August 25, September 15, 2011, March 29, May 24, and October 9, 2012 for the construction of two (2) 750 tons per day waterwall municipal waste combustors with associated air pollution control equipment, and one (1) 305 brake-horsepower (bhp) emergency firewater pump diesel engine.

(b) Application for Incinerators (Form 10) received on February 15, 2011 for the construction of two (2) 750 tons per day waterwall municipal waste combustors (MWCs), each with a Maximum Continuous Rating of 343.8 MMBtu/hour.

(c) Application for Fuel Burning Equipment (Form 11) received on February 15, 2011 for the construction/installation of one (1) 305 brake-horsepower (bhp) emergency firewater pump diesel engine.

(d) Applications for Gas Cleaning or Emission Control Equipment (Form 6) received on February 15, 2011 for the installation of two (2) spray dryer absorbers (SDA), two (2) baghouses, two (2) selective catalytic reduction (SCR) units, one (1) high efficiency drift eliminator for a cooling tower, and one (1) 2,000 acfm wet scrubber (for the fly ash surge bin), one (1) 61,200 acfm wet scrubber (for the metals and ash recovery building) and two (2) bin vent filters (for two reagent silos).

(e) Summary of Demonstrations for Meeting the Ambient Impact Requirement and T-BACT Requirements (Form 5A) received on February 15, 2011 for the construction of two (2) 750 tons per day waterwall municipal waste combustors with associated control equipment.

(f) Emissions Data (Form 5B) received on February 15, 2011 for the construction of two (2) 750 tons per day waterwall municipal waste combustors with associated control equipment.

(g) Supplemental Information (Air Quality Impact Analysis for 1-hour NO_2 and SO_2 Impacts) received on August 25, 2011.

If there are any conflicts between this permit and the applications, the permit shall govern. Estimates of dimensions, volumes, emissions rates, operating rates, feed rates, hours of operation, and other design data included in the applications do not constitute enforceable numeric limits beyond the extent necessary for compliance with applicable requirements.

(2) Upon presentation of credentials, representatives of the Maryland Department of the Environment ("MDE" or the "Department") and the Frederick County Health Department shall at any reasonable time be granted, without delay and without prior notification, access to the Permittee's property and permitted to:

(a) inspect any construction authorized by this permit;

(b) sample, as necessary to determine compliance with requirements of this permit, any materials stored or processed on-site, any waste materials, and any discharge into the environment;

(c) inspect any monitoring equipment required by this permit;

(d) review and copy any records, including all documents required to be maintained by this permit, relevant to a determination of compliance with requirements of this permit; and

(e) obtain any photographic documentation or evidence necessary to determine compliance with the requirements of this permit.

(3) The Permittee shall notify the Department prior to increasing quantities and/or changing the types of any materials referenced in the application or limited by this permit. If the Department determines that such increases or

changes constitute a modification, the Permittee shall obtain a permit-to-construct prior to implementing the modification.

(4) Nothing in this permit authorizes the violation of any rule or regulation or the creation of a nuisance or air pollution.

(5) If any provision of this permit is declared by proper authority to be invalid, the remaining provisions of the permit shall remain in effect.

(6) Subsequent to issuance of this permit, the Department may impose additional and modified requirements that are incorporated into a State permit-to-operate issued pursuant to COMAR 26.11.02.13.

(7) In accordance to COMAR 26.11.03.01, the Permittee shall submit to the Department a complete application for a Title V Operating Permit (Part 70) within twelve months of the commencement of operation of the MWCs.

Part B – Applicable Regulations

(1) This source is subject to all applicable federal air pollution control requirements including, but not limited to, the following:

(a) All applicable terms, provisions, emissions standards, testing, monitoring, record keeping, and reporting requirements included in federal New Source Performance Standards (NSPS) promulgated under 40 CFR 60, Subparts A and 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, including the following:

§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.
(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.

(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 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.

(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.

(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.
(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) <u>During the first year of operation</u> 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 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) <u>After the first year of operation</u> 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)."

§60.53b – <u>Standards for Municipal Waste Combustor Operating Practices</u>;
"(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.

Excerpt from Table 1—Municipal Waste Combustor Operating Standards

Municipal waste combustor technology	Carbon monoxide emission limit (parts per million by volume)[a]	Averaging time (hours)[b]
Mass burn waterwall	100	4

[a]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).
[b]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).
(b)(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.
(b)(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.
(c)(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.
(c)(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 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.

§60.54b – 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.
(c)(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.
(c)(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:
(c)(2)(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.
(c)(2)(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).
(c)(2)(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:
(c)(2)(iii)(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.
(c)(2)(iii)(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.
(c)(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.
(e)(1) A summary of the applicable standards under this subpart;
(e)(2) A description of basic combustion theory applicable to a municipal waste combustor unit;
(e)(3) Procedures for receiving, handling, and feeding municipal solid waste;
(e)(4) Municipal waste combustor unit startup, shutdown, and malfunction procedures;
(e)(5) Procedures for maintaining proper combustion air supply levels;
(e)(6) Procedures for operating the municipal waste combustor unit within the standards established under this subpart;
(e)(7) Procedures for responding to periodic upset or off-specification conditions;
(e)(8) Procedures for minimizing particulate matter carryover;
(e)(9) Procedures for handling ash;
(e)(10) Procedures for monitoring municipal waste combustor unit emissions; and
(e)(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.
(f)(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.
(f)(1)(i) The date 6 months after the date of startup of the affected facility;
(f)(1)(ii) The date prior to the day the person assumes responsibilities affecting municipal waste combustor unit operation; or
(f)(1)(iii) December 19, 1996.
(f)(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."

§60.55b – 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.

(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."

A summary of the NSPS Subpart Eb emissions standards applicable to the Frederick/Carroll County Renewable Waste to Energy Facility is shown in Table 1.

(b) All applicable terms, provisions, emissions standards, testing, monitoring, record keeping, and reporting requirements included in federal New Source Performance Standards (NSPS) promulgated under 40 CFR Part 60, Subparts A (General Provisions) and Subpart IIII – **Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)**, including the following:.

§60.4202 – What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?
(d) "Beginning with the model years in table 3 to this subpart, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in table 4 to this subpart, for all pollutants, for the same model year and NFPA nameplate power."

A summary of the NSPS Subpart IIII, emissions standards applicable to the emergency firewater pump diesel engine at Frederick/Carroll County Renewable Waste to Energy Facility is shown in Table below.

Excerpt from Table 4 to Subpart IIII of Part 60 "NO_x, NMHC, CO and PM Emission Standards in g/kW-hr (g/Hp-hr) for Emergency Fire Pump Engines

Maximum Engine Power	Model Year	NMHC+NO_x	CO	PM
300≤HP<600	2009+	4.0 g/kW-hr (3.0 g/Hp-hr)	3.5 g/kW-hr (2.6 g/Hp-hr)	0.2 g/kW-hr (0.15 g/Hp-hr)

(c) All applicable terms, provisions, emissions standards, testing, monitoring, record keeping, and reporting requirements included in National Emissions Standards for Hazardous Air Pollutants (NESHAP) promulgated under 40 CFR 63, Subparts A (General Provisions) and ZZZZ – **Stationary Reciprocating Internal Combustion Engines**.

Note: The Permittee must meet the requirements of 40 CFR, Part 63, Subpart ZZZZ by meeting the requirements of 40 CFR, Part 60, Subpart IIII for the emergency generator. No further requirements apply to the emergency generator under 40 CFR, Part 63, Subpart ZZZZ. **[40 CFR §63.6590(c)(1)]**.

All notifications required under 40 CFR 60 or 63, Subparts A, Eb, IIII, and ZZZZ shall be submitted to both of the following:

The Administrator
Compliance Program
Maryland Department of the Environment
Air and Radiation Management Administration
1800 Washington Boulevard, STE 715
Baltimore MD 21230

and

Director, Air Protection Division
U.S. EPA – Region 3
Mail Code 3AP00
1650 Arch Street
Philadelphia, PA 19103-2029

(2) This source is subject to all applicable federally enforceable state air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.01.04 – Testing and Monitoring.
C. Emission Test Methods.
"The following test methods are incorporated by reference:
(1) 40 CFR Part 60, Appendix A, as amended;
(2) The Department's Technical Memorandum 91-01, "Test Methods and Equipment Specifications for Stationary Sources", January, 1991, as amended through Supplement 3 (October 1, 1997); and
(3) For PM10 stack tests, the following EPA approved test methods shall be used:
(a) Test Methods 201 A and 202 in 40 CFR Part 51, Appendix M, as amended;
(b) Test Method 5 (40 CFR Part 60, Appendix A, as amended) and Test Method 202 in 40 CFR Part 51, Appendix M, as amended;
(c) Test Method 5 (40 CFR Part 60, Appendix A, as amended) using front half and back half procedure;
(d) EPA Conditional Test Method 39 may be substituted for Test Method 202 in 40 CFR Part 51, Appendix M, as amended; or
(e) Alternative test methods may be used for PM10 if they are approved by the Department and the EPA."

(b) COMAR 26.11.01.05-1 – Emissions Statements.
A. Applicability.
"This regulation applies to a person who owns or operates any installation, source, or premises that is located in:

(1) Baltimore City, or in Anne Arundel, Baltimore, Calvert, Carroll, Cecil, Charles, Frederick, Harford, Howard, Kent, Montgomery, Prince George's or Queen Anne's counties, and has total actual emissions of either VOC or NO_x from all installations and sources on a premises of 25 tons or more during a calendar year;

B. General Requirements.

(1) By April 1 of each year, beginning with April 1, 1993, a person subject to this regulation shall submit to the Department an emissions statement for the previous calendar year that meets the requirements of this regulation.

(2) A person submitting an emissions statement shall certify that the information in the emissions statement is accurate to the person's best knowledge. The certifying individual shall be:

(a) Familiar with each installation and source for which the statement is submitted; and

(b) Responsible for the accuracy of the statement.

C. Emissions Statement Content.

Emissions statements required by §B of this regulation shall be organized by premises, submitted on a form obtained from the Department, and include the following information:

(1) Identification of each installation or source at the premises that discharges VOC or NO_x, and the actual daily and annual emissions from each installation or source;

(2) An explanation of the method used to determine emissions from each installation or source and operating schedules and production data that were used to determine emissions;

(3) Beginning with the emissions statement for calendar year 1993, an explanation for any increases or decreases in emissions for each installation or source if reported emissions differ from the emissions reported in the previous year's emissions statement; and

(4) Other relevant information as required by the Department.

(c) COMAR 26.11.01.07 – Malfunctions and Other Temporary Increases of Emissions.
C. Report of Excess Emissions.
"(1) In the case of any occurrence of excess emissions, expected to last or actually lasting for 1 hour or more, from any installation required by COMAR 26.11.02.13 to obtain a State permit to operate, the owner or operator shall report the onset and shall report the termination of the occurrence to the Department by telephone.
(2) Telephone reports of excess emissions shall include the following information:
(a) The identity of the installation and the person reporting;

(b) The nature or characteristics of the emissions (for example, hydrocarbons, fluorides);
(c) The time of occurrence of the onset of the excess emissions and the actual or expected duration of the occurrence; and
(d) The actual or probable cause of the excess emissions."

D. Written Report of Excess Emissions.

"(1) When requested by the Department, the owner or operator of any installation from which excess emissions have occurred shall submit a written report to the Department within 10 days of receiving the request.
(2) The report shall set forth the following information:
(a) The identity of the installation;
(b) The nature or characteristics of the emissions (for example, hydrocarbon, fluorides);
(c) The time of occurrence of the onset of the excess emissions and the duration of the occurrence;
(d) The actual or estimated quantity of excess emissions during the occurrence, and operating data and calculations used in determining the quantity;
(e) The actual or probable cause of the occurrence and whether the owner or operator contends that the cause is a malfunction;
(f) The method of correcting the cause of the excess emissions and minimizing the duration and magnitude of the occurrence, including, if applicable, the use of overtime or contractual assistance to make repairs as expeditiously as possible;
(g) A listing of all occurrences of excess emissions from the installation, the duration of each occurrence, and the cause of each occurrence for the last 1-year period or since the effective date of this regulation, whichever is less;
(h) A copy of the maintenance plan for the installation and documentation that the plan is appropriate for the installation;
(i) Documentation that the maintenance plan was being carried out before the occurrence of excess emissions;
(j) The steps taken or planned to prevent the reoccurrence of the excess emissions; and
(k) Any other information requested by the Department which is relevant to the occurrence of excess emissions or a claim by the owner or operator that the excess emissions were the result of a malfunction."

E. "Notwithstanding any provisions to §§A—D, of this regulation, a decision by the Department not to commence enforcement proceedings for an occurrence of excess emissions is not intended to preclude the Department from considering all past periods of excess emissions in determining whether to revoke or suspend a current operating permit or not to issue an operating permit for a future period of time."

F. "The Department may exempt the owner or operator of any installation from the reporting requirements of §C, of this regulation, if it determines that other information submitted to the Department meets the requirements of §C of this regulation, or the information is of insignificant use to the Department."

(d) COMAR 26.11.01.10 – Continuous Opacity Monitoring Requirements.

A. "Applicability and Exceptions.
(1) The provisions of this regulation apply to: (e) A **municipal waste combustor** with a burning capacity of 35 tons or greater per day.

B. General Requirements for COMs.
(1) The owner or operator of an installation subject to this regulation shall:
(a) Install and continuously operate a COM that complies with a plan approved by the Department and EPA in accordance with §B(1)(b) of this regulation; and
(b) Before installing a COM, submit to the Department for approval, a plan containing the COM design specifications, proposed location, and a description of a proposed alternative measurement method consisting of a schedule for utilizing the EPA Reference Method 9 observational procedures.
(2) The Department shall submit the plan to EPA for review and approval.
(3) A COM shall comply with the applicable requirements in 40 CFR Part 51, Appendix P, Sections 3.3—3.9, as amended, which is incorporated by reference.
(4) The owner or operator of fuel burning equipment that is required by this regulation to install and operate a COM is subject to the provisions in COMAR 26.11.09.05.

C. Certification and Quality Assurance Procedures.

(1) All certification testing, including certification performance tests and audits, shall be performed in accordance with 40 CFR Part 60, Appendix B, as amended, which is incorporated by reference.
(2) For fuel burning equipment subject to the federal Acid Rain Program, all certification testing, including certification performance tests and audits, shall be performed in accordance with 40 CFR Part 75, Appendix A, as amended.
(3) Certification testing shall be repeated when the Department determines that the data are invalid because of component replacement or other conditions that affect the accuracy of generated data.
(4) The owner or operator that is required to perform a certification performance test shall:
  (a) At least 60 days before the test, submit a test protocol to the Department for review and approval;
  (b) Schedule the test at a reasonable time and notify the Department at least 10 days before the test is to be conducted; and
  (c) Submit the test results to the Department not later than 45 days after the completion of the test.
(5) The owner or operator of fuel-burning equipment required to install and operate a COM shall meet the quality assurance procedures contained in COMAR 26.11.31.

D. Record Keeping and Reporting Requirements.
(1) System Downtime Reporting Requirements.
  (a) All COM downtime that lasts or is expected to last more than 24 hours shall be reported to the Department by telephone before 10 a.m. of the first regular business day following the first day on which downtime occurs.
  (b) The COM downtime report shall include the reason, if known, for the breakdown and the estimated period of time that the COM will be down. The owner or operator shall notify the Department by telephone when the COM has met performance specifications for accuracy, reliability, and durability of acceptable monitoring systems, as provided in 40 CFR Part 51 Appendix P, and is producing data.
  (c) Except as otherwise approved by the Department and the EPA, a COM shall operate in compliance with the requirements of §B(2) of this regulation and collect data for at least 95 percent of the source's operating time during any calendar quarter. The alternative measurement plan required in §B(1)(b) of this regulation shall be used at

all times when the COM fails to conform to performance standards required by §B(2) of this regulation during data collection.

(2) Data Reporting Requirements.

(a) A COM shall automatically reduce all data to six-minute block averages calculated from 24 or more equally spaced data points.

(b) All COM data shall be reported in a format approved by the Department.

(c) A quarterly summary report shall be submitted to the Department not later than 30 days following each calendar quarter. The report shall be in a format approved by the Department, and shall include the following:

(i) The cause, time periods, and the opacity of all emissions which exceed the applicable quarterly, daily and hourly emission standards as provided in COMAR 26.11.09.05A(4);

(ii) The COM and installation downtimes, including the time and date of the beginning and end of each downtime period, and whether the downtime was scheduled;

(iii) The cause of all COM downtime;

(iv)The total operating time for the quarter, and the total time and percent of the operating time during the quarter that excess emissions occurred, and the percentage of COM downtime, during the calendar quarter;

(v) Quarterly quality assurance activities;

(vi) Daily calibration activities that include reference values, actual values, absolute or percent of span differences, and drift status;

(vii) Other information that the Department determines is necessary to evaluate the data or to ensure that compliance is achieved.

E. All information required by this regulation to be maintained or reported to the Department shall be retained and made available for review by the Department for a minimum of 5 years from the time the report is submitted."

(e) COMAR 26.11.01.11 – <u>Continuous Emission Monitoring Requirements</u>.

A. Applicability and Exemptions.

(1) The provisions of this regulation apply to:

(a) Fuel-burning equipment burning coal that has a rated heat input capacity of 100 million Btu per hour or greater;

(b) Municipal waste combustors with a burning capacity of 35 tons or greater per day;
(c) Fluidized bed combustors; and
(d) Kraft pulp mills.

(2) An owner or operator that is required to install a CEM under any federal requirement is also subject to all of the provisions of this regulation.

B. General Requirements for CEMs.

(1) An owner or operator subject to this regulation shall:
(a) Before installing a CEM, submit to the Department, for approval by the Department and EPA, a plan containing the CEM design specifications, proposed location, and a description of a proposed alternative measurement method; and
(b) Install and operate a CEM in accordance with the plan approved by the Department and EPA under the provisions of §B(1)(a) of this regulation.

(2) The owner or operator of fuel-burning equipment burning coal, with a heat input capacity of 100 million Btu per hour or greater, shall install CEMs to measure and record sulfur dioxide, nitrogen oxide, either oxygen or carbon dioxide, and flow.

(3) The owner or operator of:
(a) A municipal waste combustor (MWC) shall install CEMs to measure and record SOx, NOx, carbon monoxide emissions and either CO2 or oxygen;
(b) A Kraft pulp mill shall install a CEM to measure and record SO2 and flow; and
(c) A fluidized bed combustor of any size shall install CEMs to measure and record sulfur dioxide, nitrogen oxide and either oxygen or carbon dioxide.

(4) Except as otherwise approved by the Department, if the owner or operator is unable to obtain emissions data from CEMs because of a malfunction of the CEM for more than 2 hours in duration, the owner or operator shall use the alternative measurement method approved by the Department and EPA.

C. Quality Assurance for CEMs. A CEM used to monitor a gas concentration shall meet the quality assurance criteria of 40 CFR Part 60, Appendix F, as amended, which is incorporated by reference, or, if applicable, the quality assurance criteria of 40 CFR Part 75, Appendix B, as amended.

D. Monitoring and Determining Compliance.

(1) General. A CEM required by this regulation is the primary method used by the Department to determine compliance or

non-compliance with the applicable emission standards established in any permit or approval, administrative or court order, Certificate of Public Convenience and Necessity, or regulation in this subtitle.

(2) Data Reduction. A CEM used to monitor a gas concentration shall record not less than four equally spaced data points per hour and automatically reduce data in terms of averaging times consistent with the applicable emission standard.

E. Record Keeping and Reporting Requirements.

(1) CEM System Downtime Reporting Requirements.

(a) All CEM system downtime that lasts or is expected to last more than 24 hours shall be reported to the Department by telephone before 10 a.m. of the first regular business day following the breakdown.

(b) The system breakdown report required by §E(1)(a) of this regulation shall include the reason, if known, for the breakdown and the estimated period of time that the CEM will be down. The owner or operator of the CEM shall notify the Department by telephone when an out-of-service CEM is back in operation and producing data that has met performance specifications for accuracy, reliability, and durability of acceptable monitoring systems, as provided in COMAR 26.11.31, and is producing data.

(2) CEM Data Reporting Requirements.

(a) All test results shall be reported in a format approved by the Department.

(b) Certification testing shall be repeated when the Department determines that the CEM data may not meet performance specifications because of component replacement or other conditions that affect the quality of generated data.

(c) A quarterly summary report shall be submitted to the Department not later than 30 days following each calendar quarter. The report shall be in a format approved by the Department, and shall include the following:

(i) The cause, time periods, and magnitude of all emissions which exceed the applicable emission standards;

(ii) The source downtime including the time and date of the beginning and end of each downtime period and whether the source downtime was planned or unplanned;

(iii) The time periods and cause of all CEM downtime including records of any repairs, adjustments, or

maintenance that may affect the ability of the CEM to meet performance specifications of emission data;

(iv) Quarterly totals of excess emissions, installation downtime, and CEM downtime during the calendar quarter;

(v) Quarterly quality assurance activities;

(vi) Daily calibration activities that include reference values, actual values, absolute or percent of span differences, and drift status; and

(vii) Other information required by the Department that is determined to be necessary to evaluate the data, to ensure that compliance is achieved, or to determine the applicability of this regulation.

(d) All information required by this regulation to be reported to the Department shall be retained and made available for review by the Department for a minimum of 2 years from the time the report is submitted.

(f) COMAR 26.11.02.04 – Duration of Permits.

A. Unless a permit to construct, State permit to operate, or an approval is revoked by the Department or superseded by another permit, it remains in effect as provided in this regulation.

B. Permits to Construct and Approvals. A permit to construct or an approval expires if, as determined by the Department:

(1) Substantial construction or modification is not commenced within 18 months after the date of issuance of the permit or approval, unless the Department specifies a longer period in the permit or approval;

(2) Construction or modification is substantially discontinued for a period of 18 months after the construction or modification has commenced; or

(3) The source for which the permit or approval was issued is not completed within a reasonable period after the date of issuance of the permit or approval.

C. State Permits to Operate.

(1) Except as provided by State Government Article, §10-226(b), Annotated Code of Maryland, a State permit to operate expires 5 years from the date of issuance by the Department, unless an earlier expiration date is specified in the permit.

(2) A State permit to operate for a source may be superseded by the issuance of a Part 70 permit covering that source.

D. Temporary Start-Up State Permit to Operate. Notwithstanding B and C of this regulation, the Department may issue a temporary start-up State permit to operate for a source or emission unit within the source for a period not to exceed 90 days. In the case of a newly constructed or modified source, the Department may issue a temporary start-up State permit to operate for a period not to exceed 1 year.

(g) COMAR 26.11.02.09A – Sources Subject to Permit to Construct and Approval.
"A person may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits to construct and approvals: (6) All sources, including installations and air pollution control equipment, except as listed in Regulation .10 of this chapter -- permit to construct required."

(h) COMAR 26.11.02.13A – Sources Subject to State Permits to Operate.
"Except for a source that is covered by a Part 70 permit, a person may not operate or cause to be operated any of the following source without first obtaining, and having in current effect, a State permit to operate as required by this regulation: (61) Any other source that the Department determines has the potential to have a significant impact on air quality."

(i) COMAR 26.11.03.02 – Applications for Part 70 Permits.
A. General Requirement.
"A person who owns or operates a source for which a Part 70 permit is required by Regulation .01 of this chapter shall submit a timely and complete application for an initial permit or renewal of an existing permit on forms provided by the Department and in accordance with this regulation."

(j) COMAR 26.11.06.03D – Fugitive Particulate Matter from Materials Handling and Construction.
"A person may not cause or permit any material to be handled, transported, or stored, or a building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne."

(k) COMAR 26.11.06.12 – Control of NSPS Source.
"A person may not construct, modify, or operate, or cause to be constructed, modified, or operated, a New Source Performance Standard (NSPS) source as defined in COMAR 26.11.01.01C, which results or will result in violation of the provisions of 40 CFR 60, as amended."

(l) COMAR 26.11.06.14 – Control of PSD Source.
B. General Requirements.
"(1) A person may not construct, modify, or operate, or cause to be constructed, modified, or operated, a Prevention of Significant Deterioration (PSD) source, as defined in COMAR 26.11.01.01B(37), which will result in violation of any provision of 40 CFR §52.21, as published in the 2009 edition, as amended by the "Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule" (75 FR 31514).
(2) The reviewing authority is the Department instead of the Administrator unless otherwise specified in 40 CFR §52.1116, and the applicable procedures are those set forth in COMAR 26.11.02."

Conditions (m) thru (n) applies to Reg No. 021-0692-2-0069: Municipal Waste Combustors only

(m) COMAR 26.11.08.02E – Control of Incinerators--Applicability.
"An MWC with a capacity greater than 250 tons per day for which construction began after September 20, 1994, or modification or reconstruction began after June 19, 1996, is also subject to the requirements of 40 CFR Part 60 Subpart Eb, Standards of Performance for Municipal Waste Combustors, as amended, incorporated by reference at COMAR 26.11.06.12."

(n) COMAR 26.11.08.04 – Visible Emissions Standards.
"A. In Areas I, II, V, and VI, the following apply:
(1) Except as provided in Regulations .08 and .08-1 of this chapter, a person may not cause or permit the discharge of emissions from any incinerator, other than water in an uncombined form, which is greater than 20 percent opacity;
(2) A person may not cause or permit the discharge of emissions from any hazardous waste incinerator, other than water in an uncombined form, which is visible to human observers.
C – Exceptions. "The requirements of §§A and B of this regulation do not apply to emissions during start-up, or adjustments or occasional cleaning of control equipment if:

(1) The visible emissions are not greater than 40 percent opacity; and
(2) The visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period."

Conditions (o) thru (q) applies to Reg No. 021-0692-9-0330: Emergency Firewater Pump Diesel Engine only

(o) COMAR 26.11.09.05E(2) – Visible Emissions
(2) Emissions During Idle Mode.
"A person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity."
(3) Emission During Operating Mode.
"A person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity."
COMAR 26.11.09.05E(4) – Exceptions:
(a) Section E(2) of this regulation does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system;
(b) Section E(2) of this regulation does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:
  (i) Engines that are idled continuously when not in service: 30 minutes,
  (ii) All other engines: 15 minutes; and
(c) Section E(2) and (3) of this regulation do not apply while maintenance, repair, or testing is being performed by qualified mechanics."

(p) COMAR 26.11.09.07A(1)(c) – Sulfur Content Limitations for Fuel – In Areas I, II, V, and VI.
"A person may not burn, sell, or make available for sale any fuel with a sulfur content by weight in excess of or which otherwise exceeds the following limitation: (c) Distillate fuel oils, 0.3 percent by weight."

Note: Installations subject to 40 CFR Part 60, Subpart IIII must comply with the fuel standards of §60.4207 which limit the maximum sulfur content of the fuel to 15 ppm.

Condition (n) applies to cooling tower only

(q) COMAR 26.11.06.02C(2) – Visible Emission Standards.
"(1) In Areas I, II, V, and VI a person may not cause or permit the discharge of emissions from any installation or building, other

than water in an uncombined form, which is greater than 20 percent opacity."
COMAR 26.11.06.02A(2) – Exceptions:
"The visible emissions standards in §C of this regulation do not apply to emissions during start-up and process modifications or adjustments, or occasional cleaning of control equipment, if:
(a) The visible emissions are not greater than 40 percent opacity; and
(b) The visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period."

(r) COMAR 26.11.17.03 – Nonattainment Provisions for Major New Sources. – General Conditions.
A. "A person who proposes to construct or modify and emissions unit subject to this chapter may not commence construction of the emissions unit without first obtaining all permits and approvals required under this subtitle."

(3) This source is subject to all applicable State-only enforceable air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.02.19C – Information Required to be Maintained by a Source.
"(1) Beginning January 1, 1994, the owner or operator of a source for which a permit to operate is required shall maintain records necessary to support the emission certification, including the following information:
(a) The total amount of actual emissions of each regulated pollutant and the total of all regulated pollutants;
(b) An explanation of the methods used to quantify the emissions and the operating schedules and production data that were used to determine emissions, including significant assumptions made;
(c) Amounts, types, and analyses of all fuels used;
(d) Emission data from continuous emission monitors that are required by this subtitle or EPA regulations, including monitor calibration and malfunction information;
(e) Identification, description, and use records of all air pollution control equipment and compliance monitoring equipment, including significant maintenance performed, malfunctions and downtime, and episodes of reduced efficiency of this equipment;
(f) Limitations on source operation or any work practice standards that significantly affect emissions; and

(g) Other relevant information as required by the Department.

(2) The logs and other records of information required by §C(1) of this regulation shall be retained for a period of 5 years and made available to the Department upon request.

(3) If the owner or operator of a source for which a permit to operate is required fails to maintain or provide the data required by this section, which the Department requests in order to verify the emissions during the previous calendar year, the annual emission-based fee for that source shall be based on the estimated allowable emissions, as defined in COMAR 26.11.01.01B(4), of that source, as determined by the Department."

(b) COMAR 26.11.02.19D – Emission Certification.

"(1) The responsible official designated by the owner or operator of a source for which a permit to operate is required shall certify, as provided at Regulation .02F of this chapter, the actual emissions of regulated air pollutants from all installations at the plant or facility.

(2) Certification shall be on a form obtained from the Department and shall be submitted to the Department not later than April 1 of the year following the year for which certification is required."

(c) COMAR 26.11.06.08 – Nuisance.

"An installation or premises may not be operated or maintained in such a manner that a nuisance or air pollution is created. Nothing in this regulation relating to the control of emissions may in any manner be construed as authorizing or permitting the creation of, or maintenance of, nuisance or air pollution."

(d) COMAR 26.11.06.09 – Odors.

"A person may not cause or permit the discharge into the atmosphere of gases, vapors, or odors beyond the property line in such a manner that a nuisance or air pollution is created."

(e) COMAR 26.11.15.05 (A) – Control Technology Requirements (T-BACT)

New or Reconstructed Installations.

"A person may not construct, reconstruct, operate, or cause to be constructed, reconstructed, or operated, any new installation or source that will discharge a toxic air pollutant to the atmosphere without installing and operating T-BACT."

(f) COMAR 26.11.15.06(A) – Ambient Impact Requirements. Requirements for New Installations, Sources, or Premises.
"(1) Except as provided in §A(2) of this regulation, a person may not construct, modify, or operate, or cause to be constructed, modified, or operated, any new installation or source without first demonstrating to the satisfaction of the Department using procedures established in this chapter that total allowable emissions from the premises of each toxic air pollutant discharged by the new installation or source will not unreasonably endanger human health.
(2) If a new installation or source will discharge a TAP that is not listed in COMAR 26.11.16.07 and will be part of an existing premises, then emissions of that TAP from existing sources or existing installations on the premises may be omitted from a screening analysis unless the TAP is added to COMAR 26.11.16.07."

(4) The Permittee shall comply with all requirements, including emission limitations and standards, specified in the Prevention of Significant Deterioration Approval No. PSD-2012-001.

(5) The Permittee shall comply with all requirements, including emission limitations and standards, specified in the New Source Review Approval No. NSR-2012-001.

Part C – Construction Conditions

(1) Except as otherwise provided in this part, the two (2) 750 tons per day waterwall municipal waste combustors with associated control equipment shall be constructed in accordance with specifications included in the incorporated applications.

(2) The stack serving after the add on control systems, carrying the exhaust gases from each municipal waste combustor, shall be equipped with emissions test ports and shall be located in accordance with the specifications set forth in the Air and Radiation Management Administration's Technical Memorandum No. 91-01, "Stack Test Methods for Stationary Sources", January, 1991, as amended through Supplement 3 (October 1, 1997), which is incorporated by reference.

(3) Each flue within the stack with minimum height of 270 feet serving the waterwall municipal waste combustors shall be equipped with a continuous emission monitoring systems (CEMS) to monitor and record SO_2, NO_X, CO and CO_2 emissions. Each CEMS shall be designed and installed in accordance with the performance specifications in 40 CFR 60, Appendix B and 40 CFR 60.4345.

(4) To meet emissions limits for PM, PM_{10}, CO, MWC Organics (dioxin/furans), MWC Acid Gases (HCl, SO_2), MWC Metals (Hg, Pb, Cd), HF, and sulfuric acid mist (SAM) from the municipal waste combustors when burning municipal solid waste alone or in conjunction with natural gas, the Permittee shall install the Best Available Control Technology (BACT) as shown in Tables 1 of PSD-2012-1.

Conditions (5) thru (7) apply to Reg. No. 021-0692-9-0330:
Emergency Firewater Pump Diesel Engine only

(5) Except as otherwise provided in this part, the Permittee shall construct the emergency fire pump diesel engine, rated at 305 bhp in accordance with the specifications contained in the permit-to-construct application. The Permittee shall install and configure the emergency fire pump diesel engine in accordance with the manufacturer's specifications.

(6) An emergency fire pump diesel engine subject to the requirements of 40 CFR 60, Subpart IIII ("NSPS emergency diesel generator" or "NSPS emergency diesel engine") shall:
- (a) Conform to the standard specified in §60.4205 (b) for 2007 model year and later model year engines [§60.4205(b)];
- (b) Be equipped with a non-resettable hour meter [Ref: §60.4209(a)]; and
- (c) Have a cylinder displacement of less than 30 liters per cylinder [§60.4200(1)(a)].

(7) For emergency diesel engines subject to NSPS, the Permittee must comply by purchasing an engine certified to the emission standards specified in §60.4205(b) for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications [Ref: §60.4211(c)].

Part D – Operating Conditions

(1) Prior to startup of the two (2) 750 tons per day waterwall municipal waste combustors, the Permittee shall submit to the Department a completed application for a temporary permit-to-operate. The Permittee shall not operate the two (2) 750 tons per day municipal waste combustors before the temporary permit-to-operate is issued.

(2) To comply with the emission limitations specified in PSD-2012-01 and NSR 2012-01, the Permittee shall operate two (2) 750 tons per day waterwall municipal waste combustors and air pollution control equipment in accordance to the manufacturer recommendations and in such a manner as

to achieve full and continuous compliance with all the applicable emission standards.

(3) To meet emissions limits for NO_X, from the municipal waste combustors when burning municipal solid waste alone or in conjunction with natural gas, the Permittee shall apply good combustion practices, and operate and maintain the control equipment to meet Lowest Achievable Emissions Rate (LAER) requirements.

(4) The Permittee shall limit emissions of ammonia resulting from unreacted ammonia ("ammonia slip") emitted from the SCR to 20 parts per million by volume, dry basis, corrected to 7 percent oxygen.

(a) Compliance with the ammonia slip limit shall be determined by annual stack testing using EPA Method 26A modified or MDE approved method. A minimum of 3-1 hour runs shall be conducted. Aqueous ammonia injection rate (lbs/hr) shall be monitored and recorded on a 24-hour block average basis. Corrective actions shall be initiated if ammonia injection rate exceeds 20% of the rate established during stack testing. Corrective actions shall be documented.

(b) Alternatively, the Permittee may request permission from the Department to utilize a continuous in-stack ammonia monitor acceptable to the Department to monitor ammonia emissions.

(5) The Permittee shall not operate the combustors at a unit load level greater than 110% of the maximum demonstrated municipal waste combustor unit load [40 CFR 60.53b(a)], except for testing purposes, as specified in 40 CFR 60.53b(b). Unit load means the steam load of the municipal waste combustor as specified in 40 CFR 60.58b(i)(6). Maximum demonstrated municipal combustor load means the load as defined in 40 CFR 60.51b.

(6) Municipal waste combustor unit capacity shall be calculated using the procedures in 40 CFR 60.58b(j).

(7) The Permittee shall develop and update, at least each calendar year, a site-specific operating manual that shall, at a minimum, address the elements of municipal waste combustor unit operations specified in 40 CFR 60.53b(e). The Permittee shall maintain the manual on site and make it available to the Department upon request.

(8) The Permittee shall not cause the combustors to operate at a temperature, measured at the particulate matter control device inlet, exceeding 17ºC above the maximum demonstrated particulate matter control device

temperature defined in 40 CFR 60.51b, except during certain specified types of testing [40 CFR 60.53b(c)].

(9) The Permittee shall comply with the operator training and certification requirements outlined in 40 CFR 60.54b.

(10) The Permittee shall use the procedures in 40 CFR 60.58b(i) to determine compliance with applicable operating requirements.

(11) Warm-up on Waste-derived Fuel is prohibited. During warm-up, auxiliary fuel (natural gas) shall be used to achieve combustion chamber operating temperature. 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. Continuous burning is the continuous, semicontinuous, or batch feeding of MSW 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 MSW solely to provide thermal protection of grate or hearth during the start-up period shall not be considered to be continuous burning.

<u>Conditions (12) thru (17) apply to Reg. No. 021-0692-9-0330:
Emergency Firewater Pump Diesel Engine only</u>

(12) Except as otherwise provided in this part, the Permittee shall operate the emergency firewater pump diesel engine in accordance with specifications included in the application and any operating procedures recommended by the equipment vendors unless the Permittee obtains from the Department written authorization for alternative operating procedures.

(13) The Permittee, owner and operator of stationary CI ICE subject to the emissions standard of 40 CFR Part 60, Subpart IIII must operate and maintain the stationary CI ICE and control device according to the manufacturer's written instructions, or procedures developed by the Permittee, owner or operator that are approved by the engine manufacturer. In addition, the Permittee, owner and operator may only change those settings that are permitted by the manufacturer, and the Permittee, owner or operator must also meet all applicable requirements of 40 CFR Parts 89, 94 and/or 1068 as applicable [§60.4211(a)].

(14) The Permittee, owner and operator of CI ICE subject to the requirements of this subpart with a displacement less than 30 liters per cylinder must combust diesel fuel meeting the requirements of 40 CFR §80.510(b) (sulfur content: 15 ppm maximum) for non-road diesel [§60.4207(b)].

(15) The Permittee, owner and operator of 2009 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder, which are not fire pump engines, must comply with emissions standard for new non-road CI in §60.4202 for all pollutants for the same model year and maximum engine power for their 2007 model year and later emergency CI ICE [§60.4205(b)].

(16) The Permittee, owner and operator of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emissions standard in §§60.4204 and 4205, according to the manufacturer's written instructions, or procedures developed by the Permittee, owner or operator that are approved by the engine manufacturer, over the entire life of the new generator [40 CFR §60.4206].

(17) The Permittee may operate the CI ICE for the purpose of maintenance checks and readiness testing provided that such tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. The Permittee shall limit maintenance checks and readiness testing to not more than 100 hours per year. There is no time limit on the use of an ICE in emergency situations. The Permittee may petition the Department for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that Federal, State, or local standards require maintenance and testing of the emergency ICE beyond 100 hours per year. The Permittee, owner and operator meeting standards under §60.4205, but not §60.4204, any operation other than emergency operation, and maintenance and testing as permitted in this section is prohibited [40 CFR §60.4211(e)].

Part E – Testing and Monitoring

(1) The Permittee shall comply with all applicable testing and monitoring requirements of 40 CFR Part 60, Subpart Eb for each of the Permittee's combustors including, but not limited to, the following:

§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.
(a)(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).
(a)(1)(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.
(a)(1)(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.
(a)(1)(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 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) *Not Applicable*.
(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."

"(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).
(c)(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.

(c)(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.
(c)(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.
(c)(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.
(c)(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).
(c)(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.
(c)(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).
(d)(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).
(d)(1)(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).
(d)(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).
(d)(2)(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.
(d)(2)(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).
(d)(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.
(d)(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).
(e)(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.
(e)(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.
(e)(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 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."

"(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).
(f)(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.
(f)(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).
(f)(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).
(g)(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.
(g)(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 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.
(g)(5)(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).
(g)(5)(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.
(g)(5))(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 (*i.e.*, 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).
(g)(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.
(g)(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.
(g)(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."

"(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).
(h)(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.
(h)(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.
(h)(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."

"(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.
(i)(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.
(i)(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.
(i)(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)(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.
(i)(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.
(i)(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.

(i)(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 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.

(i)(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."

"(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."

"(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.

(k)(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)."

"(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.
(m)(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.
(m)(1)(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.
(m)(1)(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.
(m)(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.
(m)(2)(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.
(m)(2)(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.
(m)(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.
(m)(3)(i) The weight of carbon delivered to the plant.
(m)(3)(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.
(m)(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.
(n)(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.
(n)(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."

"(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."

"(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."

"(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."

(2) At least 30 days prior to conducting any compliance stack test, the Permittee shall submit a test protocol to the Department for review and approval.

(a) Compliance stack testing shall be conducted in accordance with the Department's Technical Memorandum 91-01, "Test Methods and Equipment Specifications for Stationary Sources," January, 1991, as amended through Supplement 3 (October 1, 1997), 40 CFR §51, 40 CFR §60, or subsequent test protocols approved by the Department; and

(b) Test ports shall be located in accordance with the Departments Technical Memorandum TM 91-01 (October 1997), or subsequent or alternative measures approved by the Department.

(3) Compliance stack testing of the combustors shall be conducted within 180 days after initial startup to quantify pollutant emissions and demonstrate compliance with the emission limits for the following pollutants: PM, PM10, $PM_{2.5}$, SAM, CO, HCl, Hg, dioxin/furans, Cd, and Pb. Emissions of NO_X and SO_2 shall be determined based on the 24-hour daily arithmetic average of the hourly emission concentrations from the CEMs. For all other pollutants, the Permittee may request approval from EPA and the Department to use certified CEMs in lieu of stack testing for compliance. Initial performance tests shall comply with applicable requirements outlined in 40 CFR 60.59b(f).

(4) In accordance with COMAR 26.11.01.04A, the Permittee may be required by the Department to conduct additional stack tests at any reasonable time, to determine compliance with COMAR Title 26, Subtitle 11.

(5) The Permittee shall submit a facility Operation and Maintenance (O&M) Plan to the Department for review and approval at least 60 days prior to anticipated startup of any of the combustors, air pollution control equipment, firewater pump diesel engine, and cooling tower.

(a) At a minimum, the O&M Plan shall identify all air pollution control equipment and normal operating range of each piece of equipment, and shall include a preventative maintenance program for the equipment, a description of the corrective actions to be taken to restore the equipment to proper operation to meet applicable permit conditions, a description of the employee training programs for proper operation and maintenance of the control equipment, and the records kept to demonstrate plan implementation.

(b) The Permittee shall retain a copy of the O&M Plan on site at all times, and it shall be available to the Department upon request.

Part F – Record Keeping and Reporting

(1) The Permittee will be subjected to the following Reporting and Recordkeeping requirements listed in 40CFR, Subpart Eb, Section 60.59b.
"(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)."

"(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.
(d)(1) The calendar date of each record.
(d)(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.
(d)(2)(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.
(d)(2)(i)(A) All 6-minute average opacity levels as specified under §60.58b(c).
(d)(2)(i)(B) All 1-hour average sulfur dioxide emission concentrations as specified under §60.58b(e).
(d)(2)(i)(C) All 1-hour average nitrogen oxides emission concentrations as specified under §60.58b(h).
(d)(2)(i)(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).
(d)(2)(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).
(d)(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.
(d)(ii)(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).
(d)(ii)(B) All 24-hour daily arithmetic average nitrogen oxides emission concentrations as specified under §60.58b(h).
(d)(ii)(C) All 4-hour block or 24-hour daily arithmetic average carbon monoxide emission concentrations, as applicable, as specified under §60.58b(i).
(d)(ii)(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).
(d)(ii)(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).
(d)(ii)(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).
(d)(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.
(d)(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.
(d)(4)(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.
(d)(4)(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.
(d)(4)(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.

(d)(4)(iv) The total carbon usage for each calendar quarter estimated as specified by paragraph §60.58b(m)(3) of this section, with supporting calculations.
(d)(4)(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)."
"(d)(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.
(d)(6)(i) Sulfur dioxide emissions data;
(d)(6)(ii) Nitrogen oxides emissions data;
(d)(6)(iii) Carbon monoxide emissions data;
(d)(6)(iv) Municipal waste combustor unit load data;
(d)(6)(v) Particulate matter control device temperature data; and
(d)(6)(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.
(d)(6)(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.
(d)(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.
(d)(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.
(d)(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.
(d)(9)(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.
(d)(9)(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 maximum demonstrated particulate matter control device temperature (for each particulate matter control device).
(d)(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.
(d)(10)(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.
(d)(10)(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).
(d)(10)(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).
(d)(12) The records specified in paragraphs (d)(12)(i) through (d)(12)(iv) of this section.
(d)(12)(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.
(d)(12)(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.
(d)(12)(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.
(d)(12)(iv) Records of when a certified operator is temporarily off site. Include two main items:

(d)(12)(iv)(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.
(d)(12)(iv)(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:
(d)(12)(iv)(B)(1) Time of day that all certified persons are off site.
(d)(12)(iv)(B)(2) The conditions that cause those people to be off site.
(d)(12)(iv)(B)(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.
(d)(12)(iv)(B)(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.
(d)(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.
(d)(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.
(d)(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."

"(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.

(f)(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.
(f)(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.
(f)(3) The performance evaluation of the continuous emission monitoring system using the applicable performance specifications in appendix B of this part.
(f)(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.
(f)(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.
(f)(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).
(g)(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.
(g)(1)(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.
(g)(1)(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.

(g)(1)(iii) List the highest opacity level measured, based on the data recorded under paragraph (d)(2)(i)(A) of this section.
(g)(1)(iv) Periods when valid data were not obtained as described in paragraphs (g)(1)(iv)(A) through (g)(1)(iv)(C) of this section.
(g)(1)(iv)(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.
(g)(1)(iv)(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.
(g)(1)(iv)(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.
(g)(1)(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.
(g)(1)(v)(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.
(g)(1)(v)(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.

(g)(1)(v)(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."
(g)(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.
(g)(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.
(g)(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.
(g)(5) Documentation of periods when all certified chief facility operators and certified shift supervisors are off site for more than 12 hours."

"(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.
(h)(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.
(h)(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.
(h)(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.
(h)(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.
(h)(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.
(h)(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.
(h)(6)(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.
(h)(6)(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."

"(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:
(n)(1) All required continuous emission monitoring measurements (including monitoring data recorded during unavoidable continuous emission monitoring system breakdowns and out-of-control periods);
(n)(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;
(n)(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);
(n)(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;
(n)(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;
(n)(6) The nature and cause of any malfunction (if known);
(n)(7) The corrective action taken to correct any malfunction or preventive measures adopted to prevent further malfunctions;
(n)(8) The nature of the repairs or adjustments to the continuous emission monitoring system that was inoperative or out of control;
(n)(9) All procedures that are part of a quality control program developed and implemented for the continuous emission monitoring system under §60.58b(o);
(n)(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.
(n)(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 §60.58(b)(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.
(n)(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:
(o)(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);
(o)(2) The date and time identifying each period during which the continuous automated sampling system was inoperative;
(o)(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);
(o)(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;
(o)(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;
(o)(6) The nature and cause of any malfunction (if known);
(o)(7) The corrective action taken to correct any malfunction or preventive measures adopted to prevent further malfunctions;
(o)(8) The nature of the repairs or adjustments to the continuous automated sampling system that was inoperative or out of control;

(o)(9) All procedures that are part of a quality control program developed and implemented for the continuous automated sampling system under §60.58b(q);
(o)(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.
(o)(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.
(o)(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."

<u>Conditions (2) thru (5) applies to Reg. No. 021-0692-9-0330:
Emergency Firewater Pump Diesel Engine only</u>

(2) The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, annual records of the following for the emergency firewater pump diesel engine: (a) hours utilized for maintenance checks and readiness testing; (b) number of hours operated during emergencies; and (c) results of all required combustion analyses [COMAR 26.11.01.05A(2) and COMAR 26.11.09.08G(1)(c)].

(3) The Permittee shall maintain on site for the life of the source the following records for the emergency fire pump diesel engine:
(a) The installation date of the emergency fire pump diesel engine; and
(b) The certifications of compliance or manufacturer engine test data required by 40 CFR §60.4211 and §60.4214(b).

(4) The Permittee shall require each operator of the emergency firewater pump diesel engine to attend operator training programs, at least once every 3 years, on combustion optimization that are sponsored by the Department, the EPA, or equipment vendors; and shall maintain a record of training program attendance for each operator at the site, and make these records available to the Department upon request. For purposes of this condition, the emergency firewater pump diesel engine operator to be trained may be the person who maintains the engine and makes the necessary adjustments

for efficient operation. [COMAR 26.11.09.08G(1)(d)&(e) and COMAR 26.11.09.08B(5)(a)].

(5) For any emergency fire pump diesel engine subject to 40 CFR Part 60, Subpart IIII, the Permittee shall, for each fuel delivery, obtain from the fuel supplier a fuel supplier certification consisting of the name of the oil supplier, the date of delivery, the amount of fuel delivered, and a statement from the fuel supplier that the diesel fuel oil complies with the specifications of 40 CFR §80.510. The Permittee shall maintain the required records on site for at least five (5) years.

(6) The Permittee shall maintain at the facility for at least five (5) years, and shall make available to the Department upon request, records necessary to support annual certifications of emissions and demonstrations of compliance for toxic air pollutants. Such records shall include, if applicable, the following:

1. Mass emissions rates for each regulated pollutant, and the total mass emissions rate for all regulated pollutants for each registered source of emissions;
2. Accounts of the methods and assumptions used to quantify emissions;
3. All operating data, including operating schedules and production data, that were used in determinations of emissions;
4. Amounts, types, and analyses of all fuels used;
5. Any records, the maintenance of which is required by this permit or by State or federal regulations, that pertain to the operation and maintenance of continuous emissions monitors, including:
   (i) All emissions data generated by such monitors;
   (ii) All monitor calibration data;
   (iii) Information regarding the percentage of time each monitor was available for service; and
   (iv) Information concerning any equipment malfunctions.
6. Information concerning operation, maintenance, and performance of air pollution control equipment and compliance monitoring equipment, including:
   (i) Identifications and descriptions of all such equipment;
   (ii) Operating schedules for each item of such equipment;
   (iii) Accounts of any significant maintenance performed;
   (iv) Accounts of all malfunctions and outages; and
   (v) Accounts of any episodes of reduced efficiency.
7. Limitations on source operation or any work practice standards that significantly affect emissions; and
8. Other relevant information as required by the Department.

(7) The Permittee shall submit to the Department by April 1 of each year a certification of emissions for the previous calendar year. The certifications shall be prepared in accordance with requirements, as applicable, adopted under COMAR 26.11.01.05 – 1 and COMAR 26.11.02.19D.

(a) Certifications of emissions shall be submitted on forms obtained from the Department.

(b) A certification of emissions shall include mass emissions rates for each regulated pollutant and the total mass emissions rate for all regulated pollutants for each of the facility's registered sources of emissions.

(c) The person responsible for a certification of emissions shall certify the submittal to the Department in the following manner:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

(8) The Permittee shall report, in accordance with the requirements under COMAR 26.11.01.07, occurrences of excess emissions to the Compliance Program of the Air and Radiation Management Administration.

Part G - State Only Requirements

(1) This source is subject to all applicable State-only enforceable air pollution control requirements including, but not limited to, the following regulations:

(a) COMAR 26.11.02.14D, which requires that the Permittee submit to the Department not later than 60 days prior to initiating operation of the installation for which this permit is issued a completed application for a State permit-to-operate.

(b) COMAR 26.11.02.19C & D, which require that the Permittee submit to the Department annual certifications of emissions, and that the Permittee maintain sufficient records to support the emissions information presented in such submittals.

(c) COMAR 26.11.06.08 and 26.11.06.09, which generally prohibit the discharge of emissions beyond the property line in such a manner that a nuisance or air pollution is created.

(d) COMAR 26.11.15.05, which requires that the Permittee implement “Best Available Control Technology for Toxics” (T – BACT) to control emissions of toxic air pollutants.

(e) COMAR 26.11.15.06, which prohibits the discharge of toxic air pollutants to the extent that such emissions would unreasonably endanger human health.

(f) COMAR 26.11.08.09 – Incinerator Operator Training
(A) Applicability.
“This regulation applies to any person in this State who owns or operates an incinerator.”
(B) Certification and Operation.
“A person may not operate or allow an incinerator to be operated unless the owner certifies to the Department on a form provided by the Department that the incinerator operator:
(1) Has completed an initial training course approved by the Department which meets the requirements of §C or D of this regulation;
(2) Annually, after initial certification, completes a review course approved by the Department; and
(3) Is present at all times whenever the incinerator is in operation.”

(2) Mercury Mitigation and Monitoring

(a) Notwithstanding the mercury short term mass emission limitation contained in Table 1 of PSD -2012-1, the annual mercury emissions from the two MWCs combined shall not exceed 92 pounds per year (equivalent to 17 ug/dscm (annual average)) in any consecutive 12-month rolling period, including emissions during periods of start up, shutdown and malfunction.

(b) In the event average annual mercury mass emissions exceed 92 pounds per year, no later than 30 days following the date upon submission of its annual emissions certification to MDE is due (see Part F, Condition 7), the Permittee shall:

(1) At its own expense, retain the services of an independent consultant approved by MDE to perform an optimization study of the mercury control technology and prepare a report making recommendations for improving the efficiency of the mercury control technology;
(2) Ensure that the optimization study and report are completed no later than three months following the submittal date of the annual emissions certification to MDE;
(3) Submit the optimization study report to MDE for review and approval no later than twenty (20) business days following receipt of the report; and
(4) Implement the report's recommendations no later than 60 days following MDE's approval of the report, unless MDE agrees to an extended implementation schedule.

(c) The Permittee shall install, calibrate, maintain, and operate a CEMS for mercury on each unit in accordance with 40 CFR 60.58b(d)(4), and shall record the output of the CEMS according to 40 CFR 60.58b(n) and (o).

(d) The Permittee shall maintain records of all CEMS data and shall provide MDE with an annual report evaluating the performance of the mercury CEMs. The report shall be due 30 days following the end of the first and second full years of operation.

(e) In lieu of demonstrating compliance with mercury emission limitations by use of stack testing, the Permittee may, at any time, elect to use the CEMS to demonstrate compliance with the mercury emissions limits in Condition 2(a) and Table 1 of PSD -2012-1. Commencing two years following the date of initial startup, and following review of the CEMS annual performance reports required by this Condition, MDE may require the use of CEMS to demonstrate compliance with the Hg

emission limit in Table 1 of PSD -2012-1. Should the Hg CEMS be used to demonstrate compliance with the Hg limit in Table 1 of PSD -2012-1, such demonstration shall be based on 12 month rolling average using 30 day or monthly block averages of arithmetic concentrations [40 CFR 60.58b(d)(4) and (n)]. Should use of the Hg CEMS be required to demonstrate compliance, then the Permittee is not required to conduct further stack tests for Hg as specified in Condition E(1). [40 CFR 60.58b(d)(4)];

(f) As an alternative to installing an instrument CEMS for Hg as stated in the paragraph (e) above, the Permittee may install a sorbent trap Hg CEM to continuously monitor Hg emissions. The sorbent trap Hg CEM shall be installed and operated in accordance with EPA's Performance Specification 12B – Specifications and Test Procedures for Monitoring Total Vapor Phase Mercury Emissions from Stationary Sources Using a Sorbent Trap Monitoring System [except that the relative accuracy test audit shall only be performed during initial performance specification testing and annually upon MDE request]. Should the sorbent trap Hg CEMS be used to demonstrate compliance with the 12 month rolling average Hg standard, such demonstration shall be based on a 12 month rolling average using 30 day block averages.

(g) As part of a mercury mitigation project, the Permittee shall fund mercury mitigation measures in accordance with a Memorandum of Understanding (MOU) to be established between MDE-ARMA and the Permittee. The MOU shall include a funding of thirty thousand dollars ($30,000) annually for a period not to exceed 10 years. The MOU shall be finalized at least thirty days prior to the commencement of construction.

Other

(3) The Permittee shall maintain at the facility for at least five (5) years, and shall make available to the Department upon request, records necessary to support annual certifications of emissions and demonstrations of compliance for toxic air pollutants. Such records shall include, if applicable, the following:

(a) mass emissions rates for each regulated pollutant, and the total mass emissions rate for all regulated pollutants for each registered source of emissions;
(b) accounts of the methods and assumptions used to quantify emissions;
(c) all operating data, including operating schedules and production data, that were used in determinations of emissions;
(d) amounts, types, and analyses of all fuels used;

(e) any records, the maintenance of which is required by this permit or by State or federal regulations, that pertain to the operation and maintenance of continuous emissions monitors, including:
  (i) all emissions data generated by such monitors;
  (ii) all monitor calibration data;
  (iii) information regarding the percentage of time each monitor was available for service; and
  (iv) information concerning any equipment malfunctions.

(f) Information concerning operation, maintenance, and performance of air pollution control equipment and compliance monitoring equipment, including:
  (i) identifications and descriptions of all such equipment;
  (ii) operating schedules for each item of such equipment;
  (iii) accounts of any significant maintenance performed;
  (iv) accounts of all malfunctions and outages; and
  (v) accounts of any episodes of reduced efficiency.

(g) limitations on source operation or any work practice standards that significantly affect emissions; and

(h) other relevant information as required by the Department.

Table 1 - **NSPS Subpart Eb Emissions Standards**

Pollutant	**Limit**
PM	20 mg/dscm @7% O_2 [average of 3 test runs]
Opacity	10% [6-minute average]
NO_x	During 1-yr: 180 ppmvd @7% O_2 (dry basis); After 1-yr:150 ppmvd @ 7% O_2 (dry basis)
SO_2	30 ppmvd or 20% potential SO_2 emission conc. (80% reduction by wt or vol) @ 7% O_2 (dry basis), whichever is less stringent
CO	100 ppmvd @7% O_2 (dry basis) [4-hr average]
HCl	25 ppmvd or 5% potential HCl emission conc. (95% reduction by wt or vol) @7% O_2 (dry basis), whichever is less stringent
Hg	50 µg/dscm or 15% potential Hg emission conc. (85% reduction by wt) @7% O_2, whichever is less stringent
MWC Organics (Dioxin/Furans)	13 ng/dscm (total mass) @7% O_2
Cd	10 µg/dscm @7% O_2 [average of 3 test runs or more]
Pb	140 µg/dscm @7% O_2 [average of 3 test runs or more]
Fugitive Ash Emissions to Atmosphere	No visible emission to the atmosphere in excess of 5% of the observation period (i.e., ≤ 9 minutes per 3-hour period), except as provided under 40 CFR 60.55b(b) and (c).

Notes: mg/m^3 = milligrams per cubic meter; ppmvd = parts per million by volume on a dry basis; ug/m^3 = micrograms per dry standard cubic meters.