Maryland
Department of
the Environment

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor

Horacio Tablada, Secretary
Suzanne E. Dorsey, Deputy Secretary

Mr. Andrew Kays, Executive Director
Northeast Maryland Waste Disposal Authority
100 South Street, Suite #2-402
Baltimore, MD 21201

JUN 2 0 2022

Re: Title V Operating Permit # 24-031-1718 for the Montgomery County Resource Recovery Facility (MCRRF)

Dear Mr. Kays:

Enclosed, please find the revised Part 70/Title V Operating Permit and Fact Sheet for the MCRRF located in Dickerson, MD. The Permit will expire on October 31, 2026.

The Code of Maryland Regulations (COMAR) 26.11.03.11 states the following:

> If the Department denies a Part 70 permit or issues it with terms and conditions that are objectionable to the applicant, the applicant may request that a contested case hearing be held regarding the permit. This request shall be made to the Department in writing not later than 15 days after the applicant receives notice that the permit has been denied or of the objectionable terms and conditions. The request shall include the basis for the request and refer to any objectionable terms and conditions.

Please note the following revised condition in the Permit under Section II, General Conditions, Number 5, Permit Renewal:

> The Permittee shall submit to the Department a completed application for renewal of this Part 70 permit 12 months before the expiration of the permit. Upon submitting a complete application, the Permittee may continue to operate this facility pending final action by the Department on the renewal.

If you have any questions, please feel free to contact Mr. Mario Cora, the Permit Manager for this facility, at mario.cora@maryland.gov, or (410) 537-3230.

Sincerely,

Suna Yi Sariscak, Manager
Air Quality Permits Program
Air & Radiation Administration

SYS/jm

Enclosures

cc: EPA Region III (w/encl)

KEEP PERMIT AT SITE

CONTROL NO. B - 07121

Larry Hogan
Governor

State of Maryland

Horacio Tablada
Secretary

DEPARTMENT OF THE ENVIRONMENT

Air and Radiation Administration
1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

[ ] Construction Permit

[X] Part 70 Operating Permit

PERMIT NO. 24-031-1718

DATE ISSUED JUN 2 0 2022

PERMIT FEE To be paid in accordance with COMAR 26.11.02.19B

EXPIRATION DATE October 31, 2026

LEGAL OWNER & ADDRESS
Northeast MD Waste Disposal Authority
(NMWDA)
100 S. Charles Street, Tower II, Suite 402
Baltimore, MD 21201-2705
Attn: Mr. ~~Andrew Kays~~ Executive Director

SITE
Montgomery County Resource Recovery Facility
(MCRRF)
21204 Martinsburg Road
Dickerson, MD 20842
Montgomery County
AI # 17118

SOURCE DESCRIPTION

The facility consists of three (3) waste combustion trains, each with a separate air pollution control system, storage silos, and dry lime injection systems.

This Permit supersedes Part 70 Operating Permit No. 24-031-01718 issued on January 1, 2019.

This source is subject to the conditions described on the attached pages.

Program Manager

Director, Air and Radiation Administration

MONTGOMERY COUNTY RESOURCE RECOVERY FACILITY
21204 MARTINSBURG ROAD
DICKERSON, MD 20842
PART 70 OPERATING PERMIT NO. 24-031- 1718

MONTGOMERY COUNTY RESOURCE RECOVERY FACILITY
21204 MARTINSBURG ROAD
DICKERSON, MD 20842
PART 70 OPERATING PERMIT NO. 24-031- 1718

SECTION I SOURCE IDENTIFICATION

1. DESCRIPTION OF FACILITY

The Montgomery County Resource Recovery Facility (MCRRF) is a municipal solid waste resource recovery facility operated by Covanta Montgomery, Inc. on behalf of the Northeast Maryland Waste Disposal Authority. The facility is located at 21204 Martinsburg Road in Dickerson, Montgomery County, Maryland. The SIC code for the MCRRF is 4953 (refuse systems).

The MCRRF consists of three independent combustion trains and has a nominal design capacity of 1,800 tons per day (tpd) at 5500 Btu/lb (higher heating value) The thermal output from the facility is used to generate up to approximately 63 megawatts (MW) of electricity for in-plant needs and sale to an energy broker. Natural gas fired auxiliary burners are used exclusively for unit warm-up, startup, and shutdown situations, malfunction events, as well as to maintain optimum combustion when necessary.

Containerized waste is delivered to the facility by rail car from the Montgomery County Solid Waste Transfer Station. Rail yard containers are transported to the tipping floor at the MCRRF via tipping chassis. The tipping floor area is operated under negative pressure to minimize fugitive odors. All combustion air is drawn from the tipping floor and ducted into the combustion zones of each furnace.

From the refuse pit waste is fed to the furnace feed hopper where solid waste slides by gravity into the refuse chute. A ram feeder pushes the solid waste onto a grate system. The grate system moves the waste through the furnace as the waste is burned.

The combustion system is comprised of three identical mass-burn, water wall furnaces, each nominally capable of burning 600 tpd of refuse with an average higher heating value of 5,500 Btu/lb on an annual average basis. Within each train, the refuse is charged onto a reverse reciprocating grate for combustion. The combustion gases in the furnace pass through the radiant, convective and economizer sections of the boiler, and then through the air pollution control system (APC). The APC consists of an updated NOx control system, (Covanta developed low NOx combustion system with selective non-catalytic reduction (SNCR) to further control NOx emissions with less ammonia reagent) a dry scrubber for primary acid gas control and an activated carbon injection system for mercury control in series with a baghouse for removal of particulate matter. Each unit has a furnace dry lime injection system (FDLIS) that is capable of feeding hydrated lime directly into the combustion zone for additional acid gas control on an as needed basis.

Ash is mixed with dolomitic lime as necessary. Ash is wetted, and the ash handling systems and storage containers are enclosed to prevent fugitive particulate emissions.

2. FACILITY INVENTORY LIST

Emissions Unit Number	MDE - ARA Registration Number	Emissions Unit Name and Description	Date of Installation
EU – 1	MDE Reg. No. 2-0132	One mass burn, water wall municipal waste combustion unit, nominally capable of processing 600 tpd of refuse based on an average higher heating value (hhv) of 5,500 Btu/lb of waste combusted. Unit air pollution control system consisting of SNCR, dry scrubber, activated carbon injection, FDLIS, and baghouse. A Permit to Construct for the updated NOx control system was issued on November 20, 2008.	May 1, 1995
EU – 2	MDE Reg. No. 2-0134	(Same as above)	May 1, 1995
EU – 3	MDE Reg. No. 2-0135	(Same as above)	May 1, 1995
EU – 4	(A separate registration number was not assigned to this emission unit.)	Nine (9) material storage silos: four (4) hydrated lime, one (1) pebble lime, one (1) carbon, and three (3) dolomitic lime. Each silo is equipped with a fabric filter to control particulate emissions during pneumatic loading of the silo.	Nov. 1994-June 1995

SECTION II GENERAL CONDITIONS

1. DEFINITIONS

[COMAR 26.11.01.01] and [COMAR 26.11.02.01]

The words or terms in this Part 70 permit shall have the meanings established under COMAR 26.11.01 and .02 unless otherwise stated in this permit.

2. ACRONYMS

ARA	Air and Radiation Administration
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEM	Continuous Emissions Monitor
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COMAR	Code of Maryland Regulations
EPA	United States Environmental Protection Agency
FR	Federal Register
gr	grains
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
MDE	Maryland Department of the Environment
MVAC	Motor Vehicle Air Conditioner
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
NSR	New Source Review
OTR	Ozone Transport Region
PM	Particulate Matter
PM10	Particulate Matter with Nominal Aerodynamic Diameter of 10 micrometers or less
ppm	parts per million
ppb	parts per billion
PSD	Prevention of Significant Deterioration
PTC	Permit to construct
PTO	Permit to operate (State)

SIC	Standard Industrial Classification
SO_2	Sulfur Dioxide
TAP	Toxic Air Pollutant
tpy	tons per year
VE	Visible Emissions
VOC	Volatile Organic Compounds

3. EFFECTIVE DATE

The effective date of the conditions in this Part 70 permit is the date of permit issuance, unless otherwise stated in the permit.

4. PERMIT EXPIRATION

[COMAR 26.11.03.13B(2)]

Upon expiration of this permit, the terms of the permit will automatically continue to remain in effect until a new Part 70 permit is issued for this facility provided that the Permittee has submitted a timely and complete application and has paid applicable fees under COMAR 26.11.02.16.

Otherwise, upon expiration of this permit the right of the Permittee to operate this facility is terminated.

5. PERMIT RENEWAL

[COMAR 26.11.03.02B(3)] and [COMAR 26.11.03.02E]

The Permittee shall submit to the Department a completed application for renewal of this Part 70 permit at least 12 months before the expiration of the permit. Upon submitting a completed application, the Permittee may continue to operate this facility pending final action by the Department on the renewal.

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall submit such supplementary facts or corrected information no later than 10 days after becoming aware that this occurred. The Permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after the date a completed

application was submitted, but prior to the release of a draft permit. This information shall be submitted to the Department no later than 20 days after a new requirement has been adopted.

6. CONFIDENTIAL INFORMATION

[COMAR 26.11.02.02G]

In accordance with the provisions of the State Government Article, Sec. 10-611 et seq., Annotated Code of Maryland, all information submitted in an application shall be considered part of the public record and available for inspection and copying, unless the Permittee claims that the information is confidential when it is submitted to the Department. At the time of the request for inspection or copying, the Department will make a determination with regard to the confidentiality of the information. The Permittee, when requesting confidentiality, shall identify the information in a manner specified by the Department and, when requested by the Department, promptly provide specific reasons supporting the claim of confidentiality. Information submitted to the Department without a request that the information be deemed confidential may be made available to the public. Subject to approval of the Department, the Permittee may provide a summary of confidential information that is suitable for public review. The content of this Part 70 permit is not subject to confidential treatment.

7. PERMIT ACTIONS

[COMAR 26.11.03.06E(3)] and [COMAR 26.11.03.20(A)]

This Part 70 permit may be revoked or reopened and revised for cause. The filing of an application by the Permittee for a permit revision or renewal; or a notification of termination, planned changes or anticipated noncompliance by the facility, does not stay a term or condition of this permit.

The Department shall reopen and revise, or revoke the Permittee's Part 70 permit under the following circumstances:

a. Additional requirements of the Clean Air Act become applicable to this facility and the remaining permit term is 3 years or more;

b. The Department or the EPA determines that this Part 70 permit contains a material mistake, or is based on false or inaccurate information supplied by or on behalf of the Permittee;

c. The Department or the EPA determines that this Part 70 permit must be revised or revoked to assure compliance with applicable requirements of the Clean Air Act; or

d. Additional requirements become applicable to an affected source under the Federal Acid Rain Program.

8. PERMIT AVAILABILITY

[COMAR 26.11.02.13G]

The Permittee shall maintain this Part 70 permit in the vicinity of the facility for which it was issued, unless it is not practical to do so, and make this permit immediately available to officials of the Department upon request.

9. REOPENING THE PART 70 PERMIT FOR CAUSE BY THE EPA

[COMAR 26.11.03.20B]

The EPA may terminate, modify, or revoke and reissue a permit for cause as prescribed in 40 CFR §70.7(g)

10. TRANSFER OF PERMIT

[COMAR 26.11.02.02E]

The Permittee shall not transfer this Part 70 permit except as provided in COMAR 26.11.03.15.

11. REVISION OF PART 70 PERMITS – GENERAL CONDITIONS

[COMAR 26.11.03.14] and [COMAR 26.11.03.06A(8)]

a. The Permittee shall submit an application to the Department to revise this Part 70 permit when required under COMAR 26.11.03.15 -.17.

b. When applying for a revision to a Part 70 permit, the Permittee shall comply with the requirements of COMAR 26.11.03.02 and .03 except that the application for a revision need include only information listed that is related to the proposed change to the source and revision to the permit. This information shall be sufficient to evaluate the proposed change and to determine whether it will comply with all applicable requirements of the Clean Air Act.

c. The Permittee may not change any provision of a compliance plan or schedule in a Part 70 permit as an administrative permit amendment or as a minor permit modification unless the change has been approved by the Department in writing.

d. A permit revision is not required for a change that is provided for in this permit relating to approved economic incentives, marketable permits, emissions trading, and other similar programs.

12. SIGNIFICANT PART 70 OPERATING PERMIT MODIFICATIONS

[COMAR 26.11.03.17]

The Permittee may apply to the Department to make a significant modification to its Part 70 Permit as provided in COMAR 26.11.03.17 and in accordance with the following conditions:

a. A significant modification is a revision to the federally enforceable provisions in the permit that does not qualify as an administrative permit amendment under COMAR 26.11.03.15 or a minor permit modification as defined under COMAR 26.11.03.16.

b. This permit does not preclude the Permittee from making changes, consistent with the provisions of COMAR 26.11.03, that would make the permit or particular terms and conditions of the permit irrelevant, such as by shutting down or reducing the level of operation of a source or of an emissions unit within the source. Air pollution control equipment shall not be shut down or its level of operation reduced if doing so would violate any term of this permit.

c. Significant permit modifications are subject to all requirements of COMAR 26.11.03 as they apply to permit issuance and renewal, including the requirements for applications, public participation, and review by affected states and EPA, except:

(1) An application need include only information pertaining to the proposed change to the source and modification of this permit, including a description of the change and modification, and any new applicable requirements of the Clean Air Act that will apply if the change occurs;

(2) Public participation, and review by affected states and EPA, is limited to only the application and those federally enforceable terms and conditions of the Part 70 permit that are affected by the significant permit modification.

d. As provided in COMAR 26.11.03.15B(5), an administrative permit amendment may be used to make a change that would otherwise require a significant permit modification if procedures for enhanced preconstruction review of the change are followed that satisfy the requirements of 40 CFR 70.7(d)(1)(v).

e. Before making a change that qualifies as a significant permit modification, the Permittee shall obtain all permits-to-construct and approvals required by COMAR 26.11.02.

f. The Permittee shall not make a significant permit modification that results in a violation of any applicable requirement of the Clean Air Act.

g. The permit shield in COMAR 26.11.03.23 applies to a final significant permit modification that has been issued by the Department, to the extent applicable under COMAR 26.11.03.23.

13. MINOR PERMIT MODIFICATIONS

[COMAR 26.11.03.16]

The Permittee may apply to the Department to make a minor modification to the federally enforceable provisions of this Part 70 permit as provided in COMAR 26.11.03.16 and in accordance with the following conditions:

a. A minor permit modification is a Part 70 permit revision that:

(1) Does not result in a violation of any applicable requirement of the Clean Air Act;

(2) Does not significantly revise existing federally enforceable monitoring, including test methods, reporting, record keeping, or compliance certification requirements except by:

(a) Adding new requirements,

(b) Eliminating the requirements if they are rendered meaningless because the emissions to which the requirements apply will no longer occur, or

(c) Changing from one approved test method for a pollutant and source category to another;

(3) Does not require or modify a:

(a) Case-by-case determination of a federally enforceable emissions standard,

(b) Source specific determination for temporary sources of ambient impacts, or

(c) Visibility or increment analysis;

(4) Does not seek to establish or modify a federally enforceable permit term or condition for which there is no corresponding underlying applicable requirement of the Clean Air Act, but that the Permittee has assumed to avoid an applicable requirement to which the source would otherwise be subject, including:

(a) A federally enforceable emissions standard applied to the source pursuant to COMAR 26.11.02.03 to avoid classification as a Title I modification; and

(b) An alternative emissions standard applied to an emissions unit pursuant to regulations promulgated under Section 112(i)(5) of the Clean Air Act

(5) Is not a Title I modification; and

(6) Is not required under COMAR 26.11.03.17 to be processed as a significant modification to this Part 70 permit.

b. Application for a Minor Permit Modification

The Permittee shall submit to the Department an application for a minor permit modification that satisfies the requirements of COMAR 26.11.03.03 which includes the following:

(1) A description of the proposed change, the emissions resulting from the change, and any new applicable requirements that will apply if the change is made;

(2) The proposed minor permit modification;

(3) Certification by a responsible official, in accordance with COMAR 26.11.02.02F, that:

(a) The proposed change meets the criteria for a minor permit modification, and

(b) The Permittee has obtained or applied for all required permits-to-construct required by COMAR 26.11.03.16 with respect to the proposed change;

(4) Completed forms for the Department to use to notify the EPA and affected states, as required by COMAR 26.11.03.07-.12.

c. Permittee's Ability to Make Change

(1) For changes proposed as minor permit modifications to this permit that will require the applicant to obtain a permit to construct, the permit to construct must be issued prior to the new change.

(2) During the period of time after the Permittee applies for a minor modification but before the Department acts in accordance with COMAR 26.11.03.16F(2):

(a) The Permittee shall comply with applicable requirements of the Clean Air Act related to the change and the permit terms and conditions described in the application for the minor modification.

(b) The Permittee is not required to comply with the terms and conditions in the permit it seeks to modify. If the Permittee fails to comply with the terms and conditions in the application during this time, the terms and conditions of both this permit and the application for modification may be enforced against it.

d. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.16 is not within the scope of this regulation.

e. Minor permit modification procedures may be used for Part 70 permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, but only to the extent that the minor permit modification procedures are explicitly provided for in regulations approved by the EPA as part of the Maryland SIP or in other applicable requirements of the Clean Air Act.

14. ADMINISTRATIVE PART 70 OPERATING PERMIT AMENDMENTS

[COMAR 26.11.03.15]

The Permittee may apply to the department to make an administrative permit amendment as provided in COMAR 26.11.03.15 and in accordance with the following conditions:

a. An application for an administrative permit amendment shall:

(1) Be in writing;

(2) Include a statement certified by a responsible official that the proposed amendment meets the criteria in COMAR 26.11.03.15 for an administrative permit amendment, and

(3) Identify those provisions of this part 70 permit for which the amendment is requested, including the basis for the request.

b. An administrative permit amendment:

(1) Is a correction of a typographical error;

(2) Identifies a change in the name, address, or phone number of a person identified in this permit, or a similar administrative change involving the Permittee or other matters which are not directly related to the control of air pollution;

(3) requires more frequent monitoring or reporting by the Permittee;

(4) Allows for a change in ownership or operational control of a source for which the Department determines that no other revision to the permit is necessary and is documented as per COMAR 26.11.03.15B(4);

(5) Incorporates into this permit the requirements from preconstruction review permits or approvals issued by the Department in accordance with COMAR 26.11.03.15B(5), but only if it satisfies 40 CFR 70.7(d)(1)(v);

(6) Incorporates any other type of change, as approved by the EPA, which is similar to those in COMAR 26.11.03.15B(1)—(4);

(7) Notwithstanding COMAR 26.11.03.15B(1)—(6), all modifications to acid rain control provisions included in this Part 70 permit are governed by applicable requirements promulgated under Title IV of the Clean Air Act; or

(8) Incorporates any change to a term or condition specified as State-only enforceable, if the Permittee has obtained all necessary permits-to-construct and approvals that apply to the change.

c. The Permittee may make the change addressed in the application for an administrative amendment upon receipt by the Department of the application, if all permits-to-construct or approvals otherwise required by COMAR 26.11.02 prior to making the change have first been obtained from the Department.

d. The permit shield in COMAR 26.11.03.23 applies to administrative permit amendments made under Section B(5) of COMAR 26.11.03.15 , but only after the Department takes final action to revise the permit.

e. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.15 is not within the scope of this regulation.

15. OFF-PERMIT CHANGES TO THIS SOURCE

[COMAR 26.11.03.19]

The Permittee may make off-permit changes to this facility as provided in COMAR 26.11.03.19 and in accordance with the following conditions:

a. The Permittee may make a change to this permitted facility that is not addressed or prohibited by the federally enforceable conditions of this Part 70 permit without obtaining a Part 70 permit revision if:

(1) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;

(2) The change is not subject to any requirements under Title IV of the Clean Air Act;

(3) The change is not a Title I modification; and

(4) The change does not violate an applicable requirement of the Clean Air Act or a federally enforceable term or condition of the permit.

b. For a change that qualifies under COMAR 26.11.03.19, the Permittee shall provide contemporaneous written notice to the Department and the EPA, except for a change to an emissions unit or activity that is exempt from the Part 70 permit application, as provided in COMAR 26.11.03.04. This written notice shall describe the change, including the date it was made, any change in emissions, including the pollutants emitted, and any new applicable requirements of the Clean Air Act that apply as a result of the change.

c. Upon satisfying the requirements of COMAR 26.11.03.19, the Permittee may make the proposed change.

d. The Permittee shall keep a record describing:

(1) Changes made at the facility that result in emissions of a regulated air pollutant subject to an applicable requirement of the Clean Air Act , but not otherwise regulated under this permit; and

(2) The emissions resulting from those changes.

e. Changes that qualify under COMAR 26.11.03.19 are not subject to the requirements for Part 70 revisions.

f. The Permittee shall include each off-permit change under COMAR 26.11.03.19 in the application for renewal of the part 70 permit.

g. The permit shield in COMAR 26.11.03.23 does not apply to off-permit changes made under COMAR 26.11.03.19.

h. The Permittee is subject to enforcement action if it is determined that an off-permit change made under COMAR 26.11.03.19 is not within the scope of this regulation.

16. ON-PERMIT CHANGES TO SOURCES

[COMAR 26.11.03.18]

The Permittee may make on-permit changes that are allowed under Section 502(b)(10) of the Clean Air Act as provided in COMAR 26.11.03.18 and in accordance with the following conditions:

a. The Permittee may make a change to this facility without obtaining a revision to this Part 70 permit if:

(1) The change is not a Title I modification;

(2) The change does not result in emissions in excess of those expressly allowed under the federally enforceable provisions of the Part 70 permit for the permitted facility or for an emissions unit within the facility, whether expressed as a rate of emissions or in terms of total emissions;

(3) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;

(4) The change does not violate an applicable requirement of the Clean Air Act;

(5) The change does not violate a federally enforceable permit term or condition related to monitoring, including test methods, record keeping, reporting, or compliance certification requirements;

(6) The change does not violate a federally enforceable permit term or condition limiting hours of operation, work practices, fuel usage, raw material usage, or production levels if the term or condition has been established to limit emissions allowable under this permit;

(7) If applicable, the change does not modify a federally enforceable provision of a compliance plan or schedule in this Part 70 permit unless the Department has approved the change in writing; and

(8) This permit does not expressly prohibit the change under COMAR 26.11.03.18.

b. The Permittee shall notify the Department and the EPA in writing of a proposed on-permit change under COMAR 26.11.03.18 not later than 7 days before the change is made. The written information shall include the following information:

(1) A description of the proposed change;

(2) The date on which the change is proposed to be made;

(3) Any change in emissions resulting from the change, including the pollutants emitted;

(4) Any new applicable requirement of the Clean Air Act; and

(5) Any permit term or condition that would no longer apply.

c. The responsible official of this facility shall certify in accordance with COMAR 26.11.02.02F that the proposed change meets the criteria for the use of on-permit changes under COMAR 26.11.03.18.

d. The Permittee shall attach a copy of each notice required by condition b. above to this Part 70 permit.

e. On-permit changes that qualify under COMAR 26.11.03.18 are not subject to the requirements for part 70 permit revisions.

f. Upon satisfying the requirements under COMAR 26.11.03.18, the Permittee may make the proposed change.

g. The permit shield in COMAR 26.11.03.23 does not apply to on-permit changes under COMAR 26.11.03.18.

h. The Permittee is subject to enforcement action if it is determined that an on-permit change made under COMAR 26.11.03.18 is not within the scope of the regulation or violates any requirement of the State air pollution control law.

17. FEE PAYMENT

[COMAR 26.11.02.16A(2) & (5)(b)]

a. The fee for this Part 70 permit is as prescribed in Regulation .19 of COMAR 26.11.02.

b. The fee is due on and shall be paid on or before each 12-month anniversary date of the permit.

c. Failure to pay the annual permit fee constitutes cause for revocation of the permit by the Department.

18. REQUIREMENTS FOR PERMITS-TO-CONSTRUCT AND APPROVALS

[COMAR 26.11.02.09.]

The Permittee 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:

a. New Source Review source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;

b. Prevention of Significant Deterioration source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;

c. New Source Performance Standard source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;

d. National Emission Standards for Hazardous Air Pollutants source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;

e. A stationary source of lead that discharges one ton per year or more of lead or lead compounds measured as elemental lead, permit to construct required, except for generating stations constructed by electric companies;

f. All stationary sources of air pollution, including installations and air pollution control equipment, except as listed in COMAR 26.11.02.10, permit to construct required;

g. In the event of a conflict between the applicability of (a.— e.) above and an exemption listed in COMAR 26.11.02.10, the provision that requires a permit applies.

h. Approval of a PSD or NSR source by the Department does not relieve the Permittee obtaining an approval from also obtaining all permits-to-construct required b y (c.— g.) above.

19. CONSOLIDATION OF PROCEDURES FOR PUBLIC PARTICIPATION

[COMAR 26.11.02.11C] and [COMAR 26.11.03.01K]

The Permittee may request the Department to authorize special procedures for the Permittee to apply simultaneously, to the extent possible, for a permit to construct and a revision to this permit.

These procedures may provide for combined public notices, informational meetings, and public hearings for both permits but shall not adversely affect the rights of a person, including EPA and affected states, to obtain information about the application for a permit, to comment on an application, or to challenge a permit that is issued.

These procedures shall not alter any existing permit procedures or time frames.

20. PROPERTY RIGHTS

[COMAR 26.11.03.06E(4)]

This Part 70 permit does not convey any property rights of any sort, or any exclusive privileges.

21. SEVERABILITY

[COMAR 26.11.03.06A(5)]

If any portion of this Part 70 permit is challenged, or any term or condition deemed unenforceable, the remainder of the requirements of the permit continues to be valid.

22. INSPECTION AND ENTRY

[COMAR 26.11.03.06G(3)]

The Permittee shall allow employees and authorized representatives of the Department, the EPA, and local environmental health agencies, upon presentation of credentials or other documents as may be required by law, to:

a. Enter at a reasonable time without delay and without prior notification the Permittee's property where a Part 70 source is located, emissions-related activity is conducted, or records required by this permit are kept;

b. Have access to and make copies of records required by the permit;

c. Inspect all emissions units within the facility subject to the permit and all related monitoring systems, air pollution control equipment, and practices or operations regulated or required by the permit; and

d. Sample or monitor any substances or parameters at or related to the emissions units at the facility for the purpose of determining compliance with the permit.

23. DUTY TO PROVIDE INFORMATION

[COMAR 26.11.03.06E(5)]

The Permittee shall furnish to the Department, within a reasonable time specified by the Department, information requested in writing by the Department in order to determine whether the Permittee is in compliance with the federally enforceable conditions of this Part 70 permit, or whether cause exists for revising or revoking the permit. Upon request, the Permittee shall also furnish to the Department records required to be kept under the permit.

For information claimed by the Permittee to be confidential and therefore potentially not disclosable to the public, the Department may require the Permittee to provide a copy of the records directly to the EPA along with a claim of confidentiality.

The Permittee shall also furnish to the Department, within a reasonable time specified by the Department, information or records requested in writing by the Department in order to determine if the Permittee is in compliance with the State-only enforceable conditions of this permit.

24. COMPLIANCE REQUIREMENTS

[COMAR 26.11.03.06E(1)] and [COMAR 26.11.03.06A(11)] and [COMAR 26.11.02.05]

The Permittee shall comply with the conditions of this Part 70 permit. Noncompliance with the permit constitutes a violation of the Clean Air Act, and/or the Environment Article Title 2 of the Annotated Code of Maryland and may subject the Permittee to:

a. Enforcement action,

b. Permit revocation or revision,

c. Denial of the renewal of a Part 70 permit, or

d. Any combination of these actions.

The conditions in this Part 70 permit are enforceable by EPA and citizens under the Clean Air Act except for the State-only enforceable conditions.

Under Environment Article Section 2-609, Annotated Code of Maryland, the Department may seek immediate injunctive relief against a person who violates this permit in such a manner as to cause a threat to human health or the environment.

25. CREDIBLE EVIDENCE

Nothing in this permit shall be interpreted to preclude the use of credible evidence to demonstrate noncompliance with any term of this permit.

26. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

[COMAR 26.11.03.06E(2)]

The need to halt or reduce activity in order to comply with the conditions of this permit may not be used as a defense in an enforcement action.

27. CIRCUMVENTION

[COMAR 26.11.01.06]

The Permittee may not install or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total weight of emissions, conceals or dilutes emissions which would otherwise constitute a violation of any applicable air pollution control regulation.

28. PERMIT SHIELD

[COMAR 26.11.03.23]

A permit shield as described in COMAR 26.11.03.23 shall apply only to terms and conditions in this Part 70 permit that have been specifically identified as covered by the permit shield. Neither this permit nor COMAR 26.11.03.23 alters the following:

a. The emergency order provisions in Section 303 of the Clean Air Act, including the authority of EPA under that section;

b. The liability of the Permittee for a violation of an applicable requirement of the Clean Air Act before or when this permit is issued or for a violation that continues after issuance;

c. The requirements of the Acid Rain Program, consistent with Section 408(a) of the Clean Air Act;

d. The ability of the Department or EPA to obtain information from a source pursuant to Maryland law and Section 114 of the Clean Air Act; or

e. The authority of the Department to enforce an applicable requirement of the State air pollution control law that is not an applicable requirement of the Clean Air Act.

29. ALTERNATE OPERATING SCENARIOS

[COMAR 26.11.03.06A(9)]

For all alternate operating scenarios approved by the Department and contained within this permit, the Permittee, while changing from one approved scenario to another, shall contemporaneously record in a log maintained at the facility each scenario under which the emissions unit is operating and the date and time the scenario started and ended.

SECTION III PLANT WIDE CONDITIONS

1. PARTICULATE MATTER FROM CONSTRUCTION AND DEMOLITION

[COMAR 26.11.06.03D]

The Permittee shall not cause or permit any 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.

2. OPEN BURNING

[COMAR 26.11.07]

Except as provided in COMAR 26.11.07.04, the Permittee shall not cause or permit an open fire from June 1 through August 31 of any calendar year. Prior to any open burning, the Permittee shall request and receive approval from the Department.

3. AIR POLLUTION EPISODE

[COMAR 26.11.05.04]

When requested by the Department, the Permittee shall prepare in writing standby emissions reduction plans, consistent with good industrial practice and safe operating procedures, for reducing emissions creating air pollution during periods of Alert, Warning, and Emergency of an air pollution episode.

4. REPORT OF EXCESS EMISSIONS AND DEVIATIONS

[COMAR 26.11.01.07] and [COMAR 26.11.03.06C(7)]

The Permittee shall comply with the following conditions for occurrences of excess emissions and deviations from requirements of this permit, including those in Section VI – State-only Enforceable Conditions:

a. Report any deviation from permit requirements that could endanger human health or the environment, by orally notifying the Department immediately upon discovery of the deviation;

b. Promptly report all occurrences of excess emissions that are expected to last for one hour or longer by orally notifying the Department of the onset and termination of the occurrence; (Note: The Department will accept electronic notifications to satisfy this requirement);

c. When requested by the Department the Permittee shall report all deviations from permit conditions, including those attributed to malfunctions as defined in COMAR 26.11.01.07A, within 5 days of the request by submitting a written description of the deviation to the Department. The written report shall include the cause, dates and times of the onset and termination of the deviation, and an account of all actions planned or taken to reduce, eliminate, and prevent recurrence of the deviation;

d. The Permittee shall submit to the Department semi-annual monitoring reports that confirm that all required monitoring was performed, and that provide accounts of all deviations from permit requirements that occurred during the reporting periods. Reporting periods shall be January 1 through June 30 and July 1 through December 31, and reports shall be submitted within 30 days of the end of each reporting period. Each account of deviation shall include a description of the deviation, the dates and times of onset and termination, identification of the person who observed or discovered the deviation, causes and corrective actions taken, and actions taken to prevent recurrence. If no deviations from permit conditions occurred during a reporting period, the Permittee shall submit a written report that so states.

e. When requested by the Department, the Permittee shall submit a written report to the Department within 10 days of receiving the request concerning an occurrence of excess emissions. The report shall contain the information required in COMAR 26.11.01.07D(2).

5. ACCIDENTAL RELEASE PROVISIONS

[COMAR 26.11.03.03B(23)] and [40 CFR 68]

Should the Permittee become subject to 40 CFR 68 during the term of this permit, the Permittee shall submit risk management plans by the date specified in 40 CFR 68.150 and shall certify compliance with the

requirements of 40 CFR 68 as part of the annual compliance certification as required by 40 CFR 70.

The Permittee shall initiate a permit revision or reopening according to the procedures of 40 CFR 70.7 to incorporate appropriate permit conditions into the Permittee's Part 70 permit.

6. GENERAL TESTING REQUIREMENTS

[COMAR 26.11.01.04]

The Department may require the Permittee to conduct, or have conducted, testing to determine compliance with this Part 70 permit. The Department, at its option, may witness or conduct these tests. This testing shall be done at a reasonable time, and all information gathered during a testing operation shall be provided to the Department.

7. EMISSIONS TEST METHODS

[COMAR 26.11.01.04]

Compliance with the emissions standards and limitations in this Part 70 permit shall be determined by the test methods designated and described below or other test methods submitted to and approved by the Department.

Reference documents of the test methods approved by the Department include the following:

a. 40 CFR 60, appendix A

b. 40 CFR 51, appendix M

c. 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)

8. EMISSIONS CERTIFICATION REPORT

[COMAR 26.11.01.05-1] and [COMAR 26.11.02.19C] and [COMAR 26.11.02.19D]

The Permittee shall certify actual annual emissions of regulated pollutants from the facility on a calendar year basis.

a. The certification shall be on forms obtained from the Department and submitted to the Department not later than April 1 of the year following the year for which the certification is required;

b. The individual making the certification shall certify that the information is accurate to the individual's best knowledge. The individual shall be:

(1) Familiar with each source for which the certifications forms are submitted, and

(2) Responsible for the accuracy of the emissions information;

c. The Permittee shall maintain records necessary to support the emissions certification including the following information if applicable:

(1) The total amount of actual emissions of each regulated pollutant and the total of all regulated pollutants;

(2) 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;

(3) Amounts, types and analyses of all fuels used;

(4) Emissions data from continuous emissions monitors that are required by this permit, including monitor calibration and malfunction information;

(5) Identification, description, and use records of all air pollution control equipment and compliance monitoring equipment including:

(a) Significant maintenance performed,
(b) Malfunctions and downtime, and
(c) Episodes of reduced efficiency of all equipment;

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

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

9. COMPLIANCE CERTIFICATION REPORT

[COMAR 26.11.03.06G(6) and (7)]

The Permittee shall submit to the Department and EPA Region III a report certifying compliance with each term of this Part 70 permit including each applicable standard, emissions limitation, and work practice for the previous calendar year by April 1 of each year.

a. The compliance certification shall include:

(1) The identification of each term or condition of this permit which is the basis of the certification;

(2) The compliance status;

(3) Whether the compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of each source, currently and over the reporting period; and

(5) Any other information required to be reported to the Department that is necessary to determine the compliance status of the Permittee with this permit.

b. The Permittee shall submit the compliance certification reports to the Department and EPA simultaneously.

10. CERTIFICATION BY RESPONSIBLE OFFICIAL

[COMAR 26.11.02.02F]

All application forms, reports, and compliance certifications submitted pursuant to this permit shall be certified by a responsible official as to truth, accuracy, and completeness. The Permittee shall expeditiously notify the Department of an appointment of a new responsible official.

The certification shall be in the following form:

"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."

11. SAMPLING AND EMISSIONS TESTING RECORD KEEPING

[COMAR 26.11.03.06C(5)]

The Permittee shall gather and retain the following information when sampling and testing for compliance demonstrations:

a. The location as specified in this permit, and the date and time that samples and measurements are taken;

b. All pertinent operating conditions existing at the time that samples and measurements are taken;

c. The date that each analysis of a sample or emissions test is performed and the name of the person taking the sample or performing the emissions test;

d. The identity of the Permittee, individual, or other entity that performed the analysis;

e. The analytical techniques and methods used; and

f. The results of each analysis.

12. GENERAL RECORDKEEPING

[COMAR 26.11.03.06C(6)]

The Permittee shall retain records of all monitoring data and information that support the compliance certification for a period of five (5) years from the date that the monitoring, sample measurement, application, report or emissions test was completed or submitted to the Department.

These records and support information shall include:

a. All calibration and maintenance records;

b. All original data collected from continuous monitoring instrumentation;

c. Records which support the annual emissions certification; and

d. Copies of all reports required by this permit.

13. GENERAL CONFORMITY

[COMAR 26.11.26.09]

The Permittee shall comply with the general conformity requirements of 40 CFR 93, Subpart B and COMAR 26.11.26.09.

14. ASBESTOS PROVISIONS

[40 CFR 61, Subpart M]

The Permittee shall comply with 40 CFR 61, Subpart M when conducting any renovation or demolition activities at the facility.

15. OZONE DEPLETING REGULATIONS

[40 CFR 82, Subpart F]

The Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for MVACs in subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the prohibitions and required practices pursuant to 40 CFR 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair or disposal of appliances shall comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

c. Persons performing maintenance, service, repairs or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.

d. Persons disposing of small appliances, MVACS, and MVAC-like appliances as defined in 40 CFR 82.152, shall comply with record keeping requirements pursuant to 40 CFR 82.155.

e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.

f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

16. ACID RAIN PERMIT

Not applicable

SECTION IV PLANT SPECIFIC CONDITIONS

This section provides tables that include the emissions standards, emissions limitations, and work practices applicable to each emissions unit located at this facility. The Permittee shall comply with all applicable emissions standards, emissions limitations and work practices included herein.

The tables also include testing, monitoring, record keeping and reporting requirements specific to each emissions unit. In addition to the requirements included here in **Section IV**, the Permittee is also subject to the general testing, monitoring, record keeping and reporting requirements included in **Section III – Plant Wide Conditions** of this permit.

Unless otherwise provided in the specific requirements for an emissions unit, the Permittee shall maintain at the facility for at least five (5) years, and shall make available to the Department upon request, all records that the Permittee is required under this section to establish. **[Authority: COMAR 26.11.03.06C(5)(g)]**

4.1.1	**Emissions Unit Number(s)** – **EU-1, EU-2 & EU-3** Three (3) mass burn, water wall furnaces, each nominally capable of processing 600 tons per day (tpd) of refuse with an average higher heating value of 5,500 Btu/lb. Each unit's air pollution control system consists of NOx control, dry scrubber, activated carbon injection, baghouse, and a dry lime injection system that is used only as necessary to maintain compliance with acid gas limits. **(MDE Reg. Nos. 2-0132, 2-0134, 2-0135)**
4.1.2	**Applicable Standards/Limits:** **A. *Short-Term Emission Limits*** The Permittee shall comply with the following 1-hour, 3-hour, 4-hour, 8-hour, and 24-hour average emission limits: (1) Emission units (EU) 1 thru 3 shall comply with all the short term emission standards referenced in Table A and Table B provided at the end of this section. **[Authority: Regulatory authority for each emission standard is specified in Table A and Table B]** (2) The Standards in Table A shall apply at all times, with the following exceptions:

(a) For standards traceable to the PSD approval, for any MWC unit during periods of startup, shutdown, and malfunction when alternative facility-wide mass based emission standards apply as identified in Table B. During periods of startup, shutdown, and malfunction, Emission Units 1 thru 3 combined shall not discharge carbon monoxide, nitrogen oxides, or sulfur dioxide in excess of the mass loading of the pollutant identified in Table B which are equivalent to the emission standards expressed in Table A (as concentrations in ppmdv adjusted to 7% O_2), utilizing the same volumetric loading and O_2 percent used in the PSD approval extension (i.e., 72,963 dscfm and 8.1% O_2) **[Authority: Table 1, PSD Approval issued on 2-14-1992, amended 6-18-2013]**

(b) For standards traceable to Subpart Cb, Subparts Ea or 111(d) plan-COMAR 26.11.08.08A(2), during periods of startup, shutdown or malfunction as provided in 40 CFR §60.58b(a) and §60.58b(b)(8) **[Authority: 111(d) plan-COMAR 26.11.08.08A(3), §60.58b(a) and §60.58b(b)(8)]**:

§60.58b(a): "The provisions for startup, shutdown, and malfunction are provided in paragraphs (a)(1) and (a)(2) of this section."

§60.58b(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)."

§60.58b(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."

§60.58b(a)(1)(ii): "Continuous burning is the continuous, semi-continuous, or batch feeding of municipal solid waste for purposes of waste disposal, energy production, or providing

heat to the combustion system in preparation for waste disposal or energy production. The use of municipal solid waste solely to provide thermal protection of the grate or hearth during the startup period when municipal solid waste is not being fed to the grate is not considered to be continuous burning."

§60.58b(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)."

§60.58b(b)(8) "During loss of boiler water level control or loss of combustion air control malfunction period as specified in §60.58b(a)(1)(iii), a diluent cap of 14 percent for oxygen or 5 percent for carbon dioxide may be used in the emissions calculations for sulfur dioxide and nitrogen oxides." **[Authority: COMAR 26.11.08.08B(3), 40 CFR 60.58b(b)(8)]**

(3) To allow for waste to be emptied from the throat to the feeding chute, the shutdown period shall begin 30 minutes after the chute to the loading hopper of the combustion train is closed. **[Authority: COMAR 26.11.03.06C(3)]**

(4) In demonstrating a 95 percent reduction of HCl emissions or an 85 percent reduction of SO_2 emissions, when the furnace dry lime injection system (FDLIS) is operating, the Permittee may receive credit for a demonstrated emissions reduction taking place prior to the inlet CEMS (or inlet stack test ports) for HCl or SO_2 resulting from direct injection of lime into the boiler, as follows:

$$\%R = 100 - (100 - \%Z) * C_{outlet}/C_{inlet}$$

where:

%R - percent reduction of emissions of HCl or SO_2
%Z - demonstrated percent reduction prior to inlet CEMS

C_{inlet} - dry inlet concentration ppmv adjusted to 7% O_2
C_{outlet} - dry outlet concentration ppmv adjusted to 7% O_2

The Permittee shall submit test data which demonstrates such a reduction to the Department in order to receive this credit. **[Authority: COMAR 26.11.03.06C(3)]**

B. *Annual Emission Limits*

Emissions of the following pollutants from all three units *combined* shall not exceed the annual limits specified below **[Authority: Table 1, PSD Approval issued on 2-14-92 and amended on 6-18-2013]**:

SO_2	300 tons/year
PM	96 tons/year
CO	180 tons/year
NOx	1,100 tons/year
Fluorides (total)	21 tons/year
Hydrogen Chloride	140 tons/year
Sulfuric Acid Mist	160 tons/year
Beryllium	5.1 lbs/year
Hydrocarbons(non-methane):	31 tons/year
Lead	1.9 tons/year
Mercury	3.1 tons/year
Dioxin/Furans (total, tetra- thru octa-)	0.25 lbs./year

C. *Operational Limitations*

The Permittee shall comply with the following operational limitations:

(1) The maximum load shall not exceed 110 percent of maximum load during most recent dioxin/furan performance test except as specified in paragraphs §60.53b(b)(1) and (b)(2). The averaging time is specified under §60.58b(i).

§60.58b(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."

§60.58b(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." **[Authority: 111(d) plan-COMAR 26.11.08.08A (2) Ref. §60.58b(b)]**

(2) The maximum particulate matter control device inlet temperature shall not exceed by more than 17 degrees Celsius temperature during the most recent dioxin/furan test demonstrating compliance with the dioxins/furans emission limit, except as specified in paragraphs §60.53b(c)(1) and (c)(2). The averaging time is specified under §60.58b(i). The requirements specified in this paragraph apply to each particulate matter control device utilized by the affected facility. Ref: §60.53b(c).

§60.53b(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 (c)(2) of this section are met."

§60.53b(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." **[Authority: 111(d) plan-COMAR 26.11.08.08A(2), Ref. 60.58b(c)]**

(3) The carbon mass feed rate shall exceed or equal the level(s) documented during the performance tests specified under 40 CFR §60.58b(m). **[Authority: 111(d)plan-COMAR 26.11.08.08A(2) Ref §60.53b(d)]**

(4) The amount of refuse processed by the facility shall not exceed the equivalent of 657,000 tons of refuse with an average higher heating value of 5500 Btu/lb in any one calendar year period. **[Authority: Condition 1 of Part II-Specific Conditions, PSD Approval 2-14-92, amended 6-18-2013, and condition B(3), Permit to Construct 15-1718-2-0132N issued on February 12, 1993]**

(4-1) The Permittee shall install and operate auxiliary fuel burners that are capable of preheating the combustion zone to a minimum of 1800 °F, prior to the charging of refuse. **[Authority: Condition 6 of Part II-Specific Conditions, PSD Approval 2-14-92, amended 6-18-2013]**

(5) The Permittee shall not transport ash residues unless properly contained to prevent particulate matter from becoming airborne or recycled in a manner approved by the Department. **[Authority: Condition 13 of Part II-Specific Conditions, PSD Approval 2-14-92, amended 6-18-2013]**

(6) On an annual average basis, the nominal charging rate per combustion train shall not exceed 600 tons per day of refuse with an average higher heating value of 5500 Btu/lb. Each combustion train is designed to maintain the flue gas at a minimum temperature of 1800° F, with a minimum one second retention time at that temperature. Monitoring of this shall be by a temperature correlation determined during compliance testing in one furnace. The correlation shall represent the relationship between the average furnace roof temperature and the furnace temperature determined by a temperature traverse in a furnace region with a minimum temperature of 1800°F. Note: A roof temperature of 1089 °F correlates to a furnace temperature of 1800 °F at 100 percent maximum continuous rating (MCR). **[Authority: PTC #15-1718-2-0132N, Part B-Condition 3]**

(7) The Permittee shall not operate any combustion train unless all the required air pollution control equipment systems are functioning and the train is meeting emission limits except during malfunction periods. The Permittee shall operate the auxiliary dry lime injection system as necessary to maintain compliance with all applicable *acid gas* emission standards. **[Authority: PTC # 15-1718-2-0132N, Part D - Condition 2]**

(8) Waste Restriction: The Permittee is prohibited from burning hazardous waste as defined in COMAR 26.13.03 or special medical waste as defined in COMAR 26.11.08. **[Authority: PTC # 15-1718-2-0132N, Part D - Condition 6]**

(9) Any equipment specifications, calibration and operating procedures must be submitted to the ARA for approval prior to installation or usage. **[Authority: PTC #15-1718-2-0132N, Part E-Condition 1(d)]**

D. ***Incinerator Operator Training***

The Permittee shall comply with the following operator training requirements: **[Authority: COMAR 26.11.08.09 and 40 CFR 60.56a(d)-(i)]**

(1) Certification Requirement—A person may not operate or allow an incinerator to be operated unless the owner certifies to the department on a form approved by the Department that the incinerator operator:

(a) Has completed an initial training course approved by the Department which meets the requirements of COMAR 26.11.08.09D; and

(b) Annually, after initial certification, completes a review course approved by the Department.

(2) For any incinerator operator who operates a municipal waste combustor (MWC), the training course shall address the following subjects in detail:

(a) Overall operation, maintenance, and performance of the facility;
(b) Start-up and shut-down of the facility;
(c) Applicable federal, State, and local environmental regulations, and sanctions for violations;
(d) Policies and procedures for proper and safe plant operation;
(e) Maintaining records of facility operations;
(f) Actions to correct upsets or emergencies;
(g) Control room operations;
(h) Ash handling and disposal;
(i) Combustion theory;
(j) Air pollution control technology;

	(k) Continuous emission monitors and their calibration, and quality assurance requirements. (3) For the operator of any municipal waste combustor (MWC), completing a training course means: (a) Completing an initial training course approved by the Department of at least 5 days (40 hours) duration; (b) Passing a written test approved by the Department. (4) The certified operator shall, after initial training, complete and pass an annual review course approved by the Department of at least 1 day (8 hours) duration. (5) Operation and Maintenance Manual. (a) The owner or operator of a large MWC shall develop and maintain on-site, an operations and maintenance manual that contains, at a minimum, all of the course content requirements in COMAR 26.11.08.09D(1) and in 40 CFR §60.54b(e). (b) The operations and maintenance manual shall be updated annually.
4.1.3	**Testing Requirements:** **A. *Short Term Emission Limits*** (1) The Permittee shall conduct performance tests for PM, opacity, Cd, Pb, Be, Hg and Dioxin on a calendar year basis (no less than 9 calendar months and no more than 15 months following the previous performance tests; and must complete five performance tests in each 5-year calendar period). **[Authority: 111(d) plan- COMAR 26.11.08.08A(2); Ref: §60.58b(c)(9), §60.58b(c)(11), §60.58b(d)(1)(vii), §60.58b(d)(2)(ix), §60.58b(g)(5)(i)]** (2) The Permittee shall conduct performance tests for hydrogen chloride on an annual basis (no more than 12 months following the previous performance test) **[Authority: COMAR 26.11.08.08A(2); Ref: §60.58b(f)(7)]** Note: The Department will accept HCl testing to be completed in conjunction with the testing in A.(1) above. HCl compliance will be demonstrated via CEMS once certified monitors are installed and operational.

(3) Conduct all performance and compliance testing in accordance with the test methods and specified frequencies referenced for each regulated pollutant in Table A and Table B. **[Authority: Specific regulatory authority for each pollutant emission standard, including the corresponding test method and test frequency, is specified in Table A and Table B]**

(4) Compliance testing shall be done with the RRF operating at a nominal heat release rate of 275 million Btu /hr (plus or minus 10%) for each combustion train. The steam production rate of each combustion train shall be continuously monitored and used as an indicator of heat release rate. If testing cannot be done at the heat release rate specified above, then the actual heat input during the test shall become the allowable heat release rate **[Authority: Permit to Construct # 15-1718-2-0132N, Part C – Condition 7]**

B. ***Annual Emission Limits***

Same as A above.

C. ***Operational Limitations***

(1) The maximum demonstrated municipal waste combustor unit load shall be determined during the initial performance test (*completed!*) for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in Table A is achieved. The maximum demonstrated municipal unit load shall be the highest 4-hour arithmetic average load 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 conducted on only one MWC unit at the MWC plant, as provided in §60.58b(g)(5)(iii), the Permittee may elect to apply the same MWC unit load from the tested MWC unit to the other MWC units. **[Authority: 11(d) plan-COMAR 26.11.08.08A(2) Ref: §60.58b (i)(8)]**

(2) The maximum demonstrated MWC particulate matter control device temperature shall be determined during the initial performance test (*completed!*) for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limits specified in Table A is achieved. The maximum demonstrated MWC 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 conducted on only one MWC unit at the MWC plant, as provided in §60.58b(g)(5)(iii), the Permittee may elect to apply the same particulate matter control device temperature from the tested MWC unit to the other MWC units **[Authority: 111(d) plan-COMAR 26.11.08.08A(2) Ref: §60.58b(i)(9)]**: (3) 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 and receiving prior approval from the Department **[Authority: COMAR 26.11.02.09; 111(d) plan-COMAR 26.11.08.08A(2), Ref: 40 CFR 60.58b(m)(1)]**: (a) An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance tests for mercury emissions and each subsequent performance test for mercury emissions **[Ref: 40 CFR 60.58b(m)(1)(i)]**; and (b) An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance tests for dioxin/furan emissions and each subsequent performance test for dioxin/furan emissions. **[Ref: 40 CFR 60.58b(m)(1)(ii)]** **D. *Incinerator Operator Training*** See Record-Keeping Requirements.
4.1.4	**Monitoring Requirements:** **A. Short Term Emission Limits** (1) The Permittee shall monitor and continuously record the opacity, carbon dioxide or oxygen, hydrogen chloride, carbon monoxide, nitrogen oxides, and sulfur dioxide content of the exhaust gases; the average furnace roof temperature; the steam production rate; the pressure drop across the fabric filter system; and the inlet and

outlet temperature of the dry scrubber system in a manner acceptable to ARA. **[Authority: PTC # 15-1718-2-0132N, Part E - Condition 1(a) and 1119d)plan-COMAR 26.11.08.08B(1)]**

(2) A person who owns or operates an existing MWC subject to this regulation shall:

(a) Install, calibrate, operate and maintain continuous emission monitors for carbon monoxide, oxygen, opacity, oxides of nitrogen, hydrogen chloride and sulfur dioxide;

(b) Locate monitors downstream of the final air pollution control device to measure concentrations of oxygen, oxides of nitrogen, sulfur dioxide, and opacity of the exhaust gases;

(c) Install, operate, and maintain at a minimum, one temperature monitor to measure the temperature of the flue gas as it enters the particulate matter control device. **[Authority: 111(d) COMAR 26.11.08.08B(1)]**

(3) A CEMS shall be provided for each combustion train with each CEMS consisting of the following analyzers at the location indicated **[Authority: COMAR 26.11.08.08B(2); 40 CFR 60.58a(e); PTC 15-1718-2-0132 N, Part B – Condition 9]**:

Economizer	Oxygen, carbon monoxide, sulfur dioxide, and hydrogen chloride.
Fabric Filter (discharge) at the stack	Oxygen, carbon dioxide, sulfur dioxide, hydrogen chloride, nitrogen oxides, opacity and temperature.
Furnace	Roof temperature at four locations approved by ARA.
Fabric Filter	Temperature at inlet

(4) The above referenced monitors shall meet the following requirements:

(a) Part III-Condition 2, PSD Approval issued February 14, 1992, amended June 18, 2013, which states, "Continuous emission monitors shall comply with the performance specification requirements established in 40 CFR Part 60, Appendix B and the quality assurance procedures at 40 CFR Part 60, Appendix F **[Authority: Part III-Condition 2, PSD Approval 2-14-92, amended 6-18-2013]**;

(b) COMAR 26.11.08.08B(3) which states, "The monitors required by COMAR 26.11.08.08B(1)(a) shall meet the installation, certification, reporting, record-keeping, and other requirements of COMAR 26.11.01.10, performance specifications in 40 CFR Part 60, Appendix B, the quality assurance procedures in 40 CFR Part 60, Appendix F, specifications in 40 CFR §60.58b, and the specifications in the Department's Air and Radiation Management Administration Technical memorandum 90-01 "Continuous Emission Monitoring (CEM) Policies and Procedures", which is incorporated by reference in COMAR 26.11.01.10E **[Authority: COMAR 26.11.08.08B(3)]**

(c) COMAR 26.11.08.08B(4), which states, "A person shall apply for and receive written approval from the Department before installing any of the monitors required in this chapter." **[Authority: COMAR 26.11.08.08B(4)]**

(5) For the purposes of computing the mass emission rates in lb/hr for CO, NOx, and SO_2 during periods of startup, shutdown, or malfunction (SSM), the Permittee shall collect data from the continuous flow monitor and data acquisition system which is used for the Continuous Emission Rate Monitoring System (CERMS) installed, operated, and maintained for measuring CO_2 in order to satisfy the requirements of 40 CFR Part 98, Subpart C **[Authority: COMAR 26.11.03.06C(3); Ref: 40 CFR Part 98, Subpart C, §98.35(c)(1)(ii) and (c)(3)]**

Minimum CEM Data Requirements – CEM Missing Data Provisions

(6) While a MWC unit is operated and combusting MSW, at a minimum valid (1-hour average) CEMS data for NOx, SO_2, HCl and CO concentrations shall be obtained for the following periods **[Authority: COMAR 26.11.08.08A(3), Ref §60.58b(e)(7), (h)(6), (i)(10), and (n)(8)]**.

(a) 90 percent of the operating hours per calendar quarter; and

(b) 95 percent of the operating hours per calendar year.

(7) When continuous emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks and span adjustments, emissions data shall be obtained by other monitoring systems as approved by the

administrator or EPA Reference Methods for the pollutant to provide, as necessary, valid emissions data for 90 percent of the operating hours per calendar quarter; and 95 percent of the operating hours per calendar year that the facility is operated and combusting municipal waste. **[Authority: COMAR 26.11.08.08A(2) Ref §60.58b(e)(14), §60.58b(h)(12), and §60.58b(i)(11)]**

(8) The O_2, SO_2, NOx, and CO CEMS shall complete a minimum of operation of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. The 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period. Data recorded during periods of continuous emission monitor system breakdown, repair, calibration checks, and zero and span adjustment shall not be included in the data averages computed under this paragraph. **[Authority: 40 CFR §60.13(e)(2) & (h)]**

(9) The 1-hour arithmetic averages from the SO_2, NOx, and CO CEMS shall be expressed in parts per million (dry basis). The 1-hour arithmetic averages shall be calculated using the data required under §60.13(e)(2). Each 1-hour arithmetic average shall be adjusted to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen CEMS data. At least two data points shall be used to calculate each 1-hour arithmetic average. The 1-hour arithmetic averages shall be used to calculate the following concentration (and/or percent reduction for SO_2), adjusted to 7 percent oxygen (dry basis). **[Authority: 111(d) plan-COMAR 26.11.08.08B(3) Ref §60.58b]**:

CEM	Averaging Period	§60.58a Ref	§60.58b Ref
SO_2	24-hour daily geometric mean	§60.58a(e)(7)	§60.58b(e)(6)
NOx	24-hour daily arithmetic average	§60.58a(g)(6)	§60.58b(h)(5)
CO	4-hour block arithmetic average	§60.58a(h)(1)	§60.58b(i)(1)

(10) All valid CEMS data shall be used in calculating emission rates and percent reductions even if the minimum CEMS data requirements of paragraphs (6) and (9) above are not met. **[Authority: 111(d) plan-COMAR 26.11.08.08A(2) Ref: 60.58a(e)(10) or 60.58b(e)(9); 60.58a(g)(9) or 60.58b(h)(8); and 60.58a(h)(11) or 60.58b(i)(11)]**

(11) Opacity CEM allowance for unscheduled downtime and downtime for scheduled maintenance and performance checks required by regulation shall be in accordance with TM 90-01. **[Authority: 111(d) plan-COMAR 26.11.08.08B(3)]**

(12) The HCl CEMS data will be used by the Department for informational purposes only until certification procedures are approved by the Department. **[Authority: PTC 15-1718-2-0132 N]**

(13) The HCl CEMS shall comply with the following: **[Authority: COMAR 26.11.03.06C(3)-Periodic monitoring]**

(a) The requirements in paragraphs (7) and (10); except as noted in (b) and (c) below (as applicable)

(b) The 1-hour arithmetic averages shall be used to calculate a 3-hour block average.

(c) At a minimum, valid CEMS data shall be obtained for 75 percent of the hours per day for 75 percent of the days per month the affected facility is operating and combusting MSW.

(d) The Permittee shall perform four (4) cylinder gas audits (CGAs) annually in addition to daily calibrations that include zero and span checks.

(e) Upon the installation of certified HCl CEMS the Permittee shall complete a RATA and three (3) CGAs annually, pursuant to the applicable provisions of 40 CFR Part 60, Appendix F.

(14) In order to ensure that the MWC units are in continuous compliance with the prescribed HCl standards, the Permittee shall implement the most recent "HCl Control Plan" approved by MDE-ARA.

(15) The Permittee shall install HCl CEMS on the inlet and outlet of each MWC unit and have them operational and certified by June 30, 2022. Once the HCl CEMS are operational, the requirements in paragraphs (12), (13)(b), (c) and (d) and (14) above shall no longer be applicable.

B. Annual Emission Limits:

Same as A above.

C. Operational Limitations:

(1) The Permittee shall install, calibrate, maintain, and operate a steam flow meter measuring steam flow in kilograms per hour (or pounds per hour) on a continuous basis and record the output of the monitor. Steam flow shall be calculated in 4-hour block arithmetic averages. Applicable test procedures and methods shall be as provided in 40 CFR §60.58b(i)(6)(ii). **[Authority:111(d) plan-COMAR 26.11.08.08B(3) Ref §60.58b(i)(6)]**

(2) The Permittee 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-hr. block arithmetic averages. **[Authority: COMAR 26.11.08.08B(3) Ref §60.58b(i)(7)]**

(3) Monitoring of carbon mass feed rate:

(a) 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 exceed or equal the level(s) documented during the performance tests specified under 40 CFR §60.58b(m)(1)(i) and m(1)(ii), except as specified in paragraphs (m)(2)(i) and m(2)(ii). **[Authority: 111(d) plan-COMAR 26.11.08.08B(3), Ref: 40 CFR §60.58b(m)(2)]**

(b) Permittee shall estimate the total carbon usage of the plant (kilograms or pounds) for each calendar quarter by two independent methods according to the procedures specified below **[Authority: 111(d) plan-COMAR 26.11.08.08B(3), Ref: 40 CFR §60.58b(m)(3)]**:

(i) The weight of carbon delivered to the plant; and

(ii) Estimate the average carbon mass feed rate in kilograms per hour for each hour of operation for each MWC based on the parameters specified under 40 CFR §60.58b(m)(1), and sum the result for the three MWC at the plant for the total number of hours of operation during the calendar year.

	(c) At least once each calendar quarter, the Permittee shall verify the calibration the activated carbon screw feeder by collecting and weighing a sample of activated carbon over a timed interval **[Authority: COMAR 26.11.03.06C(3)]** (4) Operational Limitations (4) thru (9) see Record-Keeping Requirements in Section 4.1.5 C. **D. Incinerator Operator Training:** See Record Keeping Requirements 4.1.5 D.
4.1.5	**Record Keeping Requirements:** **A. Short Term Emission Limits** (1) The monitors required by COMAR 26.11.08.08B(1)(a) and (b) shall meet the installation, certification, reporting, record-keeping, and other requirements of COMAR 26.11.01.10. COMAR 26.11.01.10E states that all information required by COMAR 26.11.01.10D 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. **[Authority: 111(d) plan COMAR 26.11.08.08B(3)]** (2) A person who owns an existing MWC subject to COMAR 26.11.08.08 shall report and maintain records in accordance with 40 CFR §60.59(b) of Subpart Eb, as applicable, except for the siting requirements under §60.59b(a), (b)(5), and (d)(11) of 40 CFR 60 Subpart Eb. **[Authority: 111(d) plan-COMAR 26.11.08.08C(1)]** (3) Continuous emissions monitoring data reduction and data availability shall be as prescribed in COMAR 26.11.01.10. If there is any inconsistency between COMAR 26.11.01.10 and 40 CFR Part 60, the requirements of 40 CFR Part 60 shall govern. **[Authority: 111(d) plan- COMAR 26.11.08.08C(2)]** (4) The Permittee shall keep the records as specified by §60.59b which includes the following: §60.59b(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)(2)(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)(2)(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 §60.58bel."

(d)(2)(ii)(B): "All 24-hour daily arithmetic average nitrogen oxides emission concentrations as specified under §60.58b(h)."

(d)(2)(I(C): "All 4-hour block or 24-hour daily arithmetic average carbon monoxide emission concentrations, as applicable, as specified under §60.58b(C)."

(d)(2)(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)(2)(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)(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 [section 60.59b] 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 (d)(4)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, ..., 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) "Hydrogen chloride data".

(d)(7) "Identification of each occurrence that sulfur dioxide emissions data, nitrogen oxides emissions data... 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." (*as applicable*),

(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.
(i) For owners and operators who elect to continuously monitor particulate matter instead of conducting performance testing using EPA manual test methods), as required under appendix F of this part, procedure 2, the results of daily drift tests and quarterly accuracy determinations for particulate matter.
(ii) For owners and operators who elect to continuously monitor cadmium, lead, mercury, or hydrogen chloride instead of conducting EPA manual test methods, the results of all quality evaluations, such as daily drift tests and periodic accuracy determinations, specified in the approved site-specific performance evaluation test plan required by § 60.58b(o)(5).
(iii) For owners and operators who elect to use continuous automated sampling systems for dioxin/furan or mercury, the results of all quality evaluations specified in the approved site-specific performance evaluation test plan required by § 60.58b(q)(5).

(d)(12) The records specified in paragraphs (d)(12)(i) through (d)(12)(iv) of this section.
(i) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been provisionally certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program as required by § 60.54b(a) including the dates of initial and renewal certifications and documentation of current certification.
(ii) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been fully certified by the American

	Society of Mechanical Engineers or an equivalent State-approved certification program as required by § 60.54b(b) including the dates of initial and renewal certifications and documentation of current certification. **(iii)** Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have completed the EPA municipal waste combustor operator training course or a State-approved equivalent course as required by § 60.54b(d) including documentation of training completion. **(iv)** Records of when a certified operator is temporarily off site. Include two main items: **(A)** If the certified chief facility operator and certified shift supervisor are off site for more than 12 hours, but for 2 weeks or less, and no other certified operator is on site, record the dates that the certified chief facility operator and certified shift supervisor were off site. **(B)** When all certified chief facility operators and certified shift supervisors are off site for more than 2 weeks and no other certified operator is on site, keep records of four items: ***(1)*** Time of day that all certified persons are off site. ***(2)*** The conditions that cause those people to be off site. ***(3)*** The corrective actions taken by the owner or operator of the affected facility to ensure a certified chief facility operator or certified shift supervisor is on site as soon as practicable. ***(4)*** Copies of the written reports submitted every 4 weeks that summarize the actions taken by the owner or operator of the affected facility to ensure that a certified chief facility operator or certified shift supervisor will be on site as soon as practicable. (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 [section 60.59b], 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 [section 60.59b], 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."

(n) ***Additional recordkeeping and reporting requirements for affected facilities with continuous cadmium, lead, mercury, or hydrogen chloride monitoring systems.*** In addition to complying with the requirements specified in paragraphs (a) through (m) of this section, the owner or operator of an affected source who elects to install a continuous emission monitoring system for cadmium, lead, mercury, or hydrogen chloride as specified in § 60.58b(n), shall maintain the records in paragraphs (n)(1) through (n)(10) of this section and report the information in paragraphs (n)(11) through (n)(12) of this section, relevant to the continuous emission monitoring system:
(1) All required continuous emission monitoring measurements (including monitoring data recorded during unavoidable continuous emission monitoring system breakdowns and out-of-control periods);
(2) The date and time identifying each period during which the continuous emission monitoring system was inoperative except for zero (low-level) and high-level checks;
(3) The date and time identifying each period during which the continuous emission monitoring system was out of control, as defined in § 60.58b(o)(4);
(4) The specific identification (***i.e.***, the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the standard, that occurs during startups, shutdowns, and malfunctions of the affected source;
(5) The specific identification (***i.e.***, the date and time of commencement and completion) of each time period of excess

	emissions and parameter monitoring exceedances, as defined in the standard, that occurs during periods other than startups, shutdowns, and malfunctions of the affected source; **(6)** The nature and cause of any malfunction (if known); **(7)** The corrective action taken to correct any malfunction or preventive measures adopted to prevent further malfunctions; **(8)** The nature of the repairs or adjustments to the continuous emission monitoring system that was inoperative or out of control; **(9)** All procedures that are part of a quality control program developed and implemented for the continuous emission monitoring system under § 60.58b(o); **(10)** When more than one continuous emission monitoring system is used to measure the emissions from one affected source (*e.g.*, multiple breechings, multiple outlets), the owner or operator shall report the results as required for each continuous emission monitoring system. **(11)** Submit to EPA for approval, the site-specific monitoring plan required by § 60.58b(n)(13) and § 60.58b(o), including the site-specific performance evaluation test plan for the continuous emission monitoring system required by § 60.58(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. **(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. (5) The CEMS data and continuous parameter monitoring data required by §60.59b(d) shall be retained on site or otherwise accessible on-site as computer readable format or alternative format approved by the Department for at least five years. **[Authority: 111(d)plan-COMAR 26.11.08.08C(1); Ref: 40 CFR §60.59b(k)]**

(5-1) The Permittee shall maintain records of the mass emissions data for SO_2, NOx, and CO during periods of SSM. **[Authority: COMAR 26.11.03.06C(3)]**

(6) The reports shall be retained on site or otherwise accessible on-site as computer readable format or alternative format approved by the Department for at least five years. **[Authority: 111(d) plan-COMAR 26.11.08.08, Ref: 40 CFR §60.59b(g) and (h)]**

B. Annual Emission Limits

The Permittee shall maintain a record of the annual tons of each of the pollutants and the documentation that supports the calculation of the annual emissions. **[Authority: COMAR 26.11.03.06C-Periodic monitoring]**

C. Operational Limitations:

(1) The Permittee shall keep the continuous parameter records (i.e., municipal waste combustor unit load measurements, particulate matter control device inlet temperatures, carbon mass feed rate) as specified by §60.59b(d)(1) through (d)(4), (d)(6) through (d)(9), (d)(14) and d(15) of 40 CFR Part 60, Subpart Eb. The continuous parameter monitoring data required by 60.59b(d) shall be retained on site or otherwise accessible on-site as computer readable format or alternative format approved by the Department for at least five years. **[Authority: 111(d) plan-COMAR 26.11.08.08C(1)); Ref: 40 CFR §60.59b(k)]**

(2) The Permittee shall maintain a daily log book containing the following records **[Authority: PTC # 15-1718-2-0132N, Part F - Condition 2]**:

(a) Hours per day of operation of each combustion train;
(b) Maintenance performed on the air pollution control systems;
(c) Malfunction and repair of major equipment components;
(d) Daily quantity of refuse received at and processed by the facility; and
(e) Daily quantity of ash residue and non-combustible refuse removed from the facility.

D. Incinerator Operator Training

(1) The Permittee shall maintain a copy of a certificate (issued by the Department) for each incinerator operator who has satisfactorily completed an approved incinerator operator training course as implemented by the Department and has passed the required examination in accordance with the Department's USEPA approved program. **[Authority: COMAR 26.11.08.09 and COMAR 26.11.03.06C(3)]**

(2) The Permittee shall main the records required by §60.59b(d)(12) and d(13) **[Authority: 111(d) plan-COMAR 26.11.08.08C(1)]**:

(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."

(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."

4.1.6	**Reporting Requirements:** **A. Short Term Emission limits** (1) At least 45 days prior to any compliance stack test being conducted, the Permittee shall submit to ARA a test protocol for review and shall have received approval in writing or by electronic means from ARA before testing. **[PTC # 15-1718-2-0132N, Part C(6)]** (2) Preliminary results of each emission test must be submitted within 60 days of completion to the ARA. Final test results shall be submitted to ARA within 90 days after completion of the tests. **[Authority: PTC # 15-1718-2-0132N, Part C - Condition 8 and COMAR 26.11.03.06C(3)-Periodic monitoring]** (3) The monitors required by COMAR 26.11.08.08B(1)(a) and (b)shall meet the installation, certification, reporting, record-keeping, and other requirements of COMAR 26.11.01.10..... **[Authority: 111(d) plan-COMAR 26.11.08.08B(3)]** The reporting requirements COMAR 26.11.01.10 include the following: System Downtime Reporting Requirements: COMAR 26.11.01.10D(1) (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 breakdown. (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. Note: The Department will except electronic notification in lieu of notification by telephone. (c) Except as otherwise approved by the Department and the EPA, a COM (only) 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.

Data Reporting Requirements: COMAR 26.11.01.10D(2)

(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) or other applicable emission standards;
(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.

(4) A person who owns an existing MWC subject to COMAR 26.11.08.08 shall report and maintain records in accordance with 40 CFR §60.59b of Subpart Eb, as applicable, except for the siting

requirements under §60.59b(a), (b)(5), and (d)(11) of 40 CFR 60 Subpart Eb. **[Authority: 111(d) plan-COMAR 26.11.08.08C(1)]**

The reporting requirement of §60.59b of Subpart Eb incorporated by reference include the following:

§60.59b(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."

§60.59b(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 [section 60.59b]."

(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 [section 60.59b]." (*as applicable*)

(g)(1)(ii) "A list of the highest emission level recorded for sulfur dioxide, nitrogen oxides, carbon monoxide,...municipal waste combustor unit load level, and particulate matter control device inlet temperature based on the data recorded under paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(E) of [section 60.59b]."

(g)(1)(iii) "List the highest opacity level measured, based on the data recorded under paragraph (d)(2)(i)(A) of [section 60.59b]."

(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 [section 60.59b]." (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)- not applicable (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 [section 60.59b]." (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)- not applicable (g)(2) "The summary of data reported under paragraph (g)(1) of [section 60.59b] 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 [section 60.59b] 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) ... 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) [See part 4.1.6 D. Operator Training] §60.59b(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 [section 60.59b] for sulfur dioxide, nitrogen oxides, carbon monoxide, ... 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 [section 60.59b] 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 [section 60.59b], as applicable." (h)(3) "If the test reports recorded under paragraph (d)(9) of [section 60.59b] 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 [section 60.59b] 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 [section 60.59b]." (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 [section 60.59b]. (h)(6)(i) "If the data reported in accordance with paragraphs (h)(1) through (h)(5) of [section 60.59b] 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 [section 60.59b] were collected during the second calendar half, then the report shall be submitted by February 1 following the second calendar half." The reports shall be retained on site or otherwise accessible on-site as computer readable format or alternative format approved by the Department for at least five years. §60.59b(j) "All reports specified under paragraphs [§60.59b(g)-(h)] 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."

§60.59b (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."

§60.59b (n) "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"

(5) Both the semiannual reports required by §60.59b(g) and §60.59b(h) shall be submitted in accordance with the schedule specified by §60.59b(h)(6) **[Authority: 111(d) plan-COMAR 26.11.08.08C(1)]**:

(a) If the data were collected during the first calendar half, then the report shall be submitted by August 1 following the first calendar half.

(b) If the data were collected during the second calendar half, then the report shall be submitted by February 1 following the second calendar half.

(6) The following two regulations apply to the continuous emissions monitoring systems (CEMS) for NOx, SO_2, HCl and CO emissions:

"COMAR 26.11.01.11E(1) CEM System Downtime 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." The Department will accept electronic notifications in lieu of notifications by telephone. "COMAR 26.11.01.11E(1) CEM Data Reporting Requirements. (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."

B. Annual Emission Limits

The Permittee shall report incidents of visible emissions in accordance with Permit Condition 4, Section III, Plant Wide Condition, "Report of Excess Emissions and Deviations."

C. Operational Limitations

(1) The Permittee shall report operating parameter monitoring and test data in accordance with 40 CFR §60.59b of Subpart Eb, as applicable **[Authority: 111(d) plan-COMAR 26.11.08.08C(1)]**:

(2) The Permittee shall include the operating parameter monitoring and test data in the semiannual and annual reports as required by 40 CFR §60.7(c) of Subpart A, 40 CFR §60.59b(g) and §60.59b(h) of Subpart Eb,

(3) The Permittee shall report any violations or exceedances in accordance with *Section III, Plant Wide Conditions*, Parts 4 and 9 of this Permit.

D. Incinerator Operator Training

(1) The Permittee shall submit the following information **[Authority: 111(d) plan-COMAR 26.11.08.08C(1); Ref: 60.59b(g)(5)]**

§60.59b(g)(5) Documentation of periods when all certified chief facility operators and certified shift supervisors are off site for more than 12 hours.

(2) Records and Notification. Within 10 days after training is complete, the person who conducts an approved incinerator operator training course shall: **[Authority: COMAR 26.11.08.09G]**

(a) Notify the Department in writing, of the names, employee identification numbers, and employer of those incinerator operators who have successfully complete the training course; and

(b) Provide a certificate (issued by the Department) to each incinerator operator who has satisfactorily completed the training course and has passed the required examination.

TABLE A: Emission Standards; Performance and Compliance Testing Requirements for Emission Units 1-3

Pollutant/ Parameter	*Emission Standard for a Large MWC*	*Performance/Compliance Test Requirements*
Opacity	A. No visible emissions, other than water in an uncombined form, visible to human observers. The no visible emission requirement does 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. The owner or operator of a municipal waste combustor that is required to install and operate a COM is subject to the requirements in COMAR 26.11.01.10. **Authority**: COMAR 26.11.08.04B, C & D.	A. COMS. Quality assurance and quality control requirements are as in COMAR 26.11.31.06 and .07 **Authority:** COMAR 26.11.01.10A(1)(e) and B(1)(a).
	B. 10 percent opacity with Continuous Opacity Monitoring System (COMS). Averaging time is six minutes. **Authority:** 111(d) plan-COMAR 26.11.08.08A(2)	B. EPA Reference Method 9 and COMS. Applicable test procedures and methods as specified in 40 CFR §60.58b(c). Quality assurance and quality control requirements are as in COMAR 26.11.31. Notwithstanding the requirements in COMAR 26.11.01.10B(6)(a)-(c), the Department may determine compliance and non-compliance with the visible emission limitations by performing EPA reference Method 9 observations based on a 6 minute block average. [**Authority**: 111(d) plan-COMAR 26.11.08.08A(2)]

Pollutant/ Parameter	***Emission Standard for a Large MWC***	***Performance/Compliance Test Requirements***
Particulate Matter	A. 0.01 gr/dscf adjusted to 12% CO_2 (dry gas) **Authority:** PSD Approval (2-14-92, amended 6-18-2013) B. 34 mg/dscm corrected to 7 percent O_2 (dry basis) **Authority:** 40 CFR 60 subpart Ea-§60.52a(a) C. 25 mg/dscm, adjusted to 7% O_2 (dry gas) **Authority:** 111(d) plan-COMAR 26.11.08.08A(2)	EPA Reference Method 5. Annual test, methods and procedures as specified in 40 CFR 60.58b(c). Standard C represents the most stringent particulate matter standard. **Authority:** 111(d) plan-COMAR 26.11.08.08A(2)

Pollutant/ Parameter	***Emission Standard for a Large MWC***	***Performance/Compliance Test Requirements***
SO_2 (Sulfur Dioxide)	A. 30 ppmv adjusted to 7% O_2 (dry gas) - 3 hr avg. or at least 85 percent removal efficiency whichever is less restrictive. The standard applies at all times except to an emission unit during periods of startup, shutdown, or malfunction (SSM) of that emission unit when only the alternative equivalent SO_2 standard identified in Table B applies. **Authority:** PSD Approval (2-14-92, amended 6-18-2013) B. 30 parts per million by volume, corrected to 7 percent oxygen (dry basis). 24-hour geometric mean or at least 80 percent reduction whichever is less restrictive. **Authority**: NSPS Subpart Ea §60.54a(c) C. 29 ppmv adjusted to 7% O_2 (dry gas) - 24 hr. geometric mean or 75 percent reduction, whichever is less restrictive **Authority:** COMAR 26.11.08.08A(2)	CEMS. Applicable test procedures and methods as specified in 40 CFR 60.58b(e) or as otherwise provided for in EPA Reference Method 19. **Authority:** 111(d) plan-COMAR 26.11.08.08A(2)

Pollutant/ Parameter	***Emission Standard for a Large MWC***	***Performance/Compliance Test Requirements***
NOx (Oxides of Nitrogen)	A. 180 ppmv corrected to 7% O_2 (dry gas) - 24 hr. avg. The standard applies at all times except to an emission unit during periods of startup, shutdown, or malfunction (SSM) of that emission unit when only the alternative equivalent NOx standard identified in Table B applies. **Authority:** PSD Approval (2-14-92, amended 6-18-2013) B. 180 ppmv, corrected to 7 percent oxygen (dry basis) .24-hour daily arithmetic average. **Authority:** subpart Ea §60.55a C. 205 ppmv corrected to 7 percent oxygen (dry basis) based on a 24 hr. arithmetic average. **Authority:** 111(d) plan-COMAR 26.11.08.08A(2)	CEMS. Applicable test procedures and methods as provided in 40 CFR 60.58b(h). **Authority:** 111(d) plan-COMAR 26.11.08.08A(2)

Pollutant/ Parameter	***Emission Standard for a Large MWC***	***Performance/Compliance Test Requirements***
CO (Carbon Monoxide)	A. 200 ppmv adjusted to 7% O_2 (dry gas) -1 hr. avg. 100 ppmv corrected to 7 percent O_2 (dry basis) - 4 hr. block avg. 50 ppmv adjusted to 7% O_2 (dry gas)-24 hr. block avg. The standards apply at all times except to an emission unit during periods of startup, shutdown, or malfunction (SSM) of that emission unit when only the alternative equivalent CO standards identified in Table B apply. **Authority:** PSD Approval (2-14-92, amended 6-18-2013) B. 100 ppmv corrected to 7 percent O2 (dry basis) - 4 hr. block avg. **Authority**: NSPS subpart Ea -40 CFR §60.56a; 111(d) plan-COMAR 26.11.08.08A(2)	CEMS. Methods and procedures as specified in 40 CFR 60.58b(b) and 40 CFR 60.58b(i)(1) - (5). **Authority:** 111(d) plan-COMAR 26.11.08.08A(2)

Pollutant/ Parameter	***Emission Standard for a Large MWC***	***Performance/Compliance Test Requirements***
HCl (Hydrogen Chloride)	A. 25 ppmv on a 1-hr avg. corrected to 7% O_2 (dry gas) or at least 95% removal efficiency whichever is less restrictive. **Authority**: PSD Approval (2-14-92, amended 6-18-2013) B. 25 ppmv corrected to 7% O_2 (dry basis) or at least 95% removal efficiency whichever is less restrictive. **Authority**: Subpart Ea §60.54a(d) C. 29 pppv adjusted to 7%oxygen (dry basis) or 95% reduction whichever is less restrictive **Authority**: 111(d) plan-COMAR 26.11.08.08A(2)	EPA Reference Method 26. Annual test except as provided in 40 CFR 60.58b(f) for existing non-certified HCl CEMS. Applicable test procedures and methods as provided in 40 CFR 60.58b(f). CEMS, upon installation and operation of certified HCl CEMS. **Authority:** 111(d) plan-COMAR 26.11.08.08A(2)
Dioxins /Furans	30 ng/dscm (total mass) corrected to 7% O_2 (dry gas) **Authority:** PSD Approval (2-14-1992, amended 6-18-2013); 40 CFR 60.53a and 111(d) plan-COMAR 26.11.08.08A(2)- All three limits are the same.	EPA Reference Method 23. Annual test except as provided in 40 CFR 60.58b(g) (5) (iii). Applicable test procedures and methods as specified in 40 CFR 60.58b(g). **Authority:** 111(d) plan-COMAR 26.11.08.08A(2)
Cd (Cadmium)	35 µg/dscm adjusted to 7% O_2 (dry gas) **Authority:** 111(d) plan-COMAR 26.11.08.08A(2)	EPA Reference Method 29. Annual test except as provided in 40 CFR 60.58b(d). Applicable test procedures and methods as specified in 40 CFR 60.58b(d). **Authority:** COMAR 26.11.08.08A(2)

Pollutant/ Parameter	***Emission Standard for a Large MWC***	***Performance/Compliance Test Requirements***
Pb (Lead)	A. 2.5 mg/dscm corrected to 12% CO_2 (dry basis) **Authority**: PSD Approval (2-14-92, amended 6-18-2013) B. 400 µg/dscm corrected to 7% O_2 (dry basis) **Authority**: 111(d) plan-COMAR 26.11.08.08A(2)	EPA Reference Method 29. Annual test except as provided in 40 CFR 60.58b(d). Applicable test procedures and methods as specified in 40 CFR 60.58b(d). **Authority:** COMAR 26.11.08.08A(2).
Hg (Mercury)	A. 3.4 mg/dscm corrected to 12% CO_2 (dry basis) **Authority**: PSD Approval (2-14-92, amended 6-18-2013) B. 50 µg/dscm at 7 percent O_2 or 85% reduction by weight applies if less restrictive than the above. **Authority**: 111(d) plan-COMAR 26.11.08.08A(2)	EPA Reference Method 29. Annual test except as provided in 40 CFR 60.58b(d) and (m). Applicable test procedures and methods as specified in 40 CFR 60.58b(d). **Authority:** COMAR 26.11.08.08A(2)
MWC Load	Not to exceed 110 percent of maximum load during most recent dioxin/furan performance test. **Authority:** 111(d) plan-COMAR 26.11.08.08A(2)	Continuous monitoring – 4 hr. block arithmetic average steam load. Applicable test procedures and methods as provided in 40 CFR 60.58b(i)(6). **Authority:** 111(d) plan-COMAR 26.11.08.08A(2)
Temperature	The maximum particulate matter control device inlet temperature must not exceed by more than 17 degrees Celsius the temperature during the most recent dioxin/furan test. **Authority:** 40CFR 60.56a(c); 111(d) plan-COMAR 26.11.08.08A(2)	Continuous monitoring. The temperature shall be calculated in 4-hr. block arithmetic averages Applicable test procedures and methods satisfying the requirements of 40 CFR 60.58b(i)(7). **Authority:** 40 CFR 60.58a (h)(7) and 111(d) plan-COMAR 26.11.08.08A(2)

Pollutant/ Parameter	***Emission Standard for a Large MWC***	***Performance/Compliance Test Requirements***
Fugitive Ash Emissions	Visible emissions less than 5 percent of the observation period during ash transfer. **Authority:** 111(d) plan-COMAR 26.11.08.08A(2)	EPA Reference Method 22 observations as specified in 40 CFR 60.58b(k). Annual test. The emission limit excludes visible emissions discharged inside buildings or enclosures of ash conveying systems or during maintenance and repair of ash conveying systems as specified in 40 CFR 60.55b. **Authority:** 111(d) plan-COMAR 26.11.08.08A(2).
Sulfuric Acid Mist	46 mg/dscm - 3 hr. avg., adjusted to 12% carbon dioxide (dry gas). **Authority:** PSD Approval (2-14-1992, amended 6-18-2013)	Annual test using EPA reference Method 8 or equivalent. **Authority:** COMAR 26.11.03.06C(3)-Periodic monitoring
Fluorides (total)	7.1 mg/dscm - 3 hr. avg., adjusted to 12% carbon dioxide (dry gas). **Authority:** PSD Approval (2-14-1992, amended 6-18-2013)	Annual test using EPA reference Method 13B or equivalent. **Authority:** COMAR 26.11.03.06C(3)-Periodic monitoring
Beryllium	0.82 µg/dscm -3 hr. avg., adjusted to 12% carbon dioxide (dry gas). **Authority:** PSD Approval (2-14-1992, amended 6-18-2013)	Annual test using EPA reference Method 29 or equivalent. **Authority:** COMAR 26.11.03.06C(3)-Periodic monitoring.
Hydro-carbons (non-methane)	10 mg/dscm-3 hr. avg., adjusted to 12% carbon dioxide (dry gas). **Authority:** PSD Approval (2-14-92, amended 6-18-2013)	Annual test using EPA reference Method 25A or equivalent. **Authority:** COMAR 26.11.03.06C(3) Periodic monitoring.

MONTGOMERY COUNTY RESOURCE RECOVERY FACILITY
21204 MARTINSBURG ROAD
DICKERSON, MD 20842
PART 70 OPERATING PERMIT NO. 24-031- 1718

TABLE B: Emission Standards; Facility Wide Performance Requirements Applicable during Startup, Shutdown and Malfunction Periods

Pollutant/ Parameter	***Emission Standard for a Large MWC***	***Performance Requirements***
SO_2 (Sulfur Dioxide)	60.3 lbs/hr timed average mass loading over a 3-hour period on a facility wide basis beginning with a start-up, shutdown and/or malfunction operation period. **Authority:** PSD Approval (2-14-92, amended 6-18-2013)	CEMS. Methods and procedures as specified in 40 CFR 60.58b(e). **Authority:** 111(d) plan-COMAR 26.11.08.08A(2)
NOx (Oxides of Nitrogen)	260 lbs/hr timed average mass loading over a 24-hour period on a facility wide basis beginning with a start-up, shutdown and/or malfunction operation period. **Authority:** PSD Approval (2-14-92, amended 6-18-2013)	CEMS. Methods and procedures as specified in 40 CFR 60.58b(h). **Authority:** 111(d) plan-COMAR 26.11.08.08A(2)
CO (Carbon Monoxide)	A. 176 lbs/hr timed average mass loading over a 1-hour period on a facility wide basis beginning with a start-up, shutdown and/or malfunction operation period B. 87.9 lbs/hr timed average mass loading over a 4-hour period on a facility wide basis beginning with a start-up, shutdown and/or malfunction operation period C. 44.0 lbs/hr timed average mass loading over a 24-hour period on a facility wide basis beginning with a start-up, shutdown and/or malfunction operation period **Authority**: PSD Approval (2-14-92, amended 6-18-2013)	CEMS. Methods and procedures as specified in 40 CFR 60.58b(b) and 40 CFR 60.58b(i)(1) - (5). **Authority:** 111(d) plan-COMAR 26.11.08.08A(2)

4.2.1	**Emissions Unit Number – 4** Nine (9) material storage silos: four (4) hydrated lime, one (1) pebble lime, one (1) carbon, and three (3) dolomitic lime. Each silo is equipped with a fabric filter to control particulate emissions during pneumatic loading of the silo. MDE Reg No. 2-0132 M (all silos registered under this modification)
4.2.2	**Applicable Standards/Limits:** **A. Opacity** The Permittee shall not cause or permit the discharge of emissions from any installation or building, other than water in an uncombined form, which is visible to human observers. **[Authority: COMAR 26.11.06.02(C)(2)]** **B. Particulate Matter** The Permittee shall install and operate a fabric filter control device to limit the discharge of particulate matter from the storage silos to 0.015 gr/dscf. **[Authority: PSD Approval (issued 2-14-92, amended 6-18-2013) Part II-Condition 8]**
4.2.3	**Testing Requirements:** **A. & B.** Monitoring requirements will satisfy testing requirements.
4.2.4	**Monitoring Requirements:** **A. Opacity** The Permittee shall conduct a visible emissions observation at least once each month while material is being transferred into the storage silos. If the frequency of filling a particular silo is less than once per month, a visible emissions observation shall be made each time that material is being transferred into that silo. Exceptions: transfers occurring during the evening hours or conditions of inclement weather when the visibility conditions are poor are exempt from this requirement. **[Authority: COMAR 26.11.03.06C(3)-Periodic monitoring]**

	B. Particulate Matter The Permittee shall maintain a preventive maintenance plan for each fabric filter control system that describes the maintenance activity and time schedule for completing each activity. The Permittee shall perform maintenance activities within the time frames established in the plan and shall maintain a log with records of the dates and description of the maintenance performed. **[Authority: COMAR 26.11.03.06C(3)- Periodic monitoring]**
4.2.5	**Record Keeping Requirements:** **A. Opacity** The Permittee shall maintain records of all visible emissions observations of the storage silos for at least 5 years. **[Authority: COMAR 26.11.03.06C(3) Periodic monitoring]** **B. Particulate Matter** The Permittee shall maintain a copy of the preventive maintenance plan and a record of the dates and description of the maintenance activity performed. The Permittee shall maintain records of any fabric filter failures and the corrective actions taken to return it to proper operation. **[Authority: COMAR 26.11.03.06C(3) Periodic monitoring]**
4.2.6	**Reporting Requirements:** **A. Opacity** The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, "Report of Excess Emissions and Deviations". **B. Particulate Matter** The Permittee shall submit a copy of the preventive maintenance plan, records of maintenance activities and corrective actions taken upon request by the Department. **[Authority: COMAR 26.11.03.06C(3) Periodic monitoring]**

SECTION V INSIGNIFICANT ACTIVITIES

This section provides a list of insignificant emissions units that were reported in the Title V permit application. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

(1) No. 2 Stationary internal combustion engines with less than 500 brake horsepower (373 kilowatts) of power output;

The 470 brake horsepower (BHP) emergency diesel generator and the 305 BHP emergency fire pump engines are subject to the following requirements:

(A) COMAR 26.11.09.05E(2), Emissions During Idle Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.

(B) COMAR 26.11.09.05E(3), Emissions During Operating Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.

(C) Exceptions:

(i) COMAR 26.11.09.05E(2) 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.

(ii) COMAR 26.11.09.05E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:

(a) Engines that are idled continuously when not in service: 30 minutes

(b) all other engines: 15 minutes.

(iii) COMAR 26.11.09.05E(2) & (3) do not apply while maintenance, repair or testing is being performed by qualified mechanics.

(D) Requirements from 40 CFR part 63, subpart ZZZZ:

Operation and Maintenance Requirements

§ 63.6602 For an existing emergency stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, the Permittee must comply with the requirements in item 1 of Table 2c to 40 CFR part 63, subpart ZZZZ as follows:

1. Change oil and filter every 500 hours of operation or annually, whichever comes first.

2. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;

3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

4. Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

5. The Permittee may petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

§ 63.6605(a) requires that the Permittee be in compliance with the applicable requirements in 40 CFR part 63, subpart ZZZZ at all times.

§ 63.6605(b) requires the Permittee to operate and maintain at all times any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

§ 63.6625(e)(2) The Permittee must operate and maintain the stationary RICE and after-treatment control device (if any) according

to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

§ 63.6625(f) requires the Permittee to install a non-resettable hour meter if one is not already installed.

§ 63.6640(a) The Permittee must demonstrate continuous compliance with each applicable requirement in Table 2c to 40 CFR part 63, subpart ZZZZ according to methods specified in Table 6 to this subpart.

Table 6, item 9 (existing emergency stationary RICE ≤500 HP located at a major source of HAPs) specifies that the Permittee must operate and maintain the fire pump engine emergency diesel generator according to the manufacturer's emission-related operation and maintenance instructions or develop and follow the Permittee's own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

§63.6640(f)(1) and (f)(2) provide that in order for the engine to be considered an emergency engine under 40 CFR part 63, subpart ZZZZ, any operation other than emergency operation and maintenance or testing, is prohibited. There is no time limit on the use of the engine in emergency situations. The engine may be operated for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company associated with the engine.

Notification and Reporting Requirements

No notification requirements under §63.6645 or reporting requirements under § 63.6650.

Record Keeping Requirements

§63.6655(e) Requires the Permittee to keep records of the maintenance conducted on the fire pump engine in order to

demonstrate that the fire pump engine was operated and maintained according to the Permittee's own maintenance plan.

(2) ✓ Space heaters utilizing direct heat transfer and used solely for comfort heat;

(3) ✓ Water cooling towers and water cooling ponds unless used for evaporative cooling of water from barometric jets or barometric condensers, or used in conjunction with an installation requiring a permit to operate;

(4) No. 2 Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less;

The units are subject to COMAR 26.11.19.09D, which requires that the Permittee control emissions of volatile organic compounds (VOC) from cold degreasing operations by meeting the following requirements:

(a) COMAR 26.11.19.09D(2)(b), which establishes that the Permittee shall not use any VOC degreasing material that exceeds a vapor pressure of 1 mm Hg at 20 ° C;

(b) COMAR 26.11.19.09D(3)(a—d), which requires that the Permittee implement good operating practices designed to minimize spills and evaporation of VOC degreasing material. These practices, which shall be established in writing and displayed such that they are clearly visible to operators, shall include covers (including water covers), lids, or other methods of minimizing evaporative losses, and reducing the time and frequency during which parts are cleaned;

(c) COMAR 26.11.19.09D(4), which prohibits the use of any halogenated VOC for cold degreasing.

The Permittee shall maintain on site for at least five (5) years, and shall make available to the Department upon request, the following records of operating data:

(a) Monthly records of the total VOC degreasing materials used; and

(b) Written descriptions of good operating practices designed to minimize spills and evaporation of VOC degreasing materials.

(5) ✓ Equipment for drilling, carving, cutting, routing, turning, sawing, planing, spindle sanding, or disc sanding of wood or wood products;

(6) ✓ Brazing, soldering, or welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals and not directly related to plant maintenance, upkeep and repair or maintenance shop activities;

(7) Containers, reservoirs, or tanks used exclusively for:

(a) ✓ Storage of butane, propane, or liquefied petroleum, or natural gas;

(b) No. * Storage of lubricating oils;

(c) No. * Unheated storage of VOC with an initial boiling point of 300 °F;

(d) No. 4 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;

(e) No. * Storage of motor vehicle gasoline and having individual tank capacities of 2,00 gallons (7.6 cubic meters) or less;

(f) No. * The storage of VOC normally used as solvents, diluents, thinners, inks colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less;

(8) ✓ Charbroilers and pit barbecues as defined in COMAR 26.11.18.01 with a total cooking area of 5 square feet (0.46 square meter) or less;

(9) ✓ First aid and emergency medical care provided at the facility, including related activities such as sterilization and medicine preparation used in support of a manufacturing or production process;

(10) ✓ Certain recreational equipment and activities, such as fireplaces, barbecue pits and cookers, fireworks displays, and kerosene fuel use;

(11) ✓ Potable water treatment equipment, not including air stripping equipment;

(12) ✓ Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;

(13) ✓ Natural draft hoods or natural draft ventilators that exhaust air pollutants into the ambient air from manufacturing/industrial or commercial processes;

(14) ✓ Laboratory fume hoods and vents;

(15) Any other emissions unit, not listed in this section, with a potential to emit less than the "de minimis" levels listed in COMAR 26.11.02.10X (list and describe units):

No. 1 Stationary natural gas-fired pressure washer

No. 5 Mobile gasoline-fired fired pressure washers

No. 11 Assorted chemical storage tanks, consisting of the following:

21,000 Gal.	Aqueous Ammonia
6,478 Gal.	Sodium Hypochlorite (12-13%)
6,000 Gal.	Sulfuric Acid (93%)
6,000 Gal.	Sodium Hydroxide (50%)
4,372 Gal.	Aluminum Sulfate
900 Gal.	Potassium Hydroxide (2%)
950 Gal.	Sodium Bisulfite (38%)
2,000 Gal.	#2 Diesel oil
350 Gal.	#2 Diesel oil
500 Gal.	#2 Diesel oil
1,500 Gal.	Sulfuric Acid

SECTION VI STATE-ONLY ENFORCEABLE CONDITIONS

Emissions Units 1, 2, 3
Three (3) 600 TPD Municipal Waste Combustors

Emission Unit 4
Nine (9) storage silos

The Permittee is subject to the following State-only enforceable requirements:

1. Applicable Regulations:

   (a) 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.

   (b) 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.

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

2. Operating Conditions:

   (a) Except for periods when none of the boiler units are operating, the refuse storage area shall be maintained at a negative pressure and the odor-bearing air directed to the furnace combustion air supply [Ref: Condition 12 of Part II-Specific Conditions, PSD Approval 2-14-92, amended 6-18-2013].

   (b) By complying with the control requirements contained in the PSD Approval issued on April 25, 1993 and Permits to Construct issued on February 12, 1993, November 23, 1994, and June 8, 1995, which are incorporated into the federally enforceable section of the Title V permit, the Company will assure compliance with the T-BACT (COMAR 26.11.15.05) and the Ambient Impact requirement (COMAR 26.11.15.06).

3. Testing and Monitoring:

   The Company was required to install, maintain, and operate CEM monitors for hydrogen chloride. Additionally, the Company must do annual testing for HCl and Dioxins/Furans as required by the PSD Approval, until certified HCl CEMS are installed and operational.

4. Record Keeping and Reporting:

   The Permittee shall submit to the Department, by April 1 of each year during the term of this permit, a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. The analysis shall include either:

   (a) A statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or

   (b) A revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

MONTGOMERY COUNTY RESOURCE RECOVERY FACILITY
21204 MARTINSBURG ROAD, DICKERSON, MD 20842
PERMIT NO. 24-031-1718
PART 70 OPERATING PERMIT FACT SHEET

BACKGROUND

The Montgomery County Resource Recovery Facility (MCRRF) is a municipal solid waste resource recovery facility operated by Covanta Montgomery, Inc. on behalf of the Northeast Maryland Waste Disposal Authority (the Permittee). The facility is located on Martinsburg Road in Dickerson, Montgomery County, Maryland. The applicable SIC code for the MCRRF is 4953 (refuse systems).

The MCRRF consists of three independent combustion trains and has a nominal design capacity of 1,800 tons per day (tpd) at 5500 Btu/lb (higher heating value) The thermal output from the facility is used to generate up to approximately 63 megawatts (MW) of electricity for in-plant needs and sale to an energy broker. Natural gas fired auxiliary burners are used exclusively for unit warm-up, startup, and shutdown situations, malfunction events, as well as to maintain optimum combustion when necessary.

Containerized waste is delivered to the facility by rail car from the Montgomery County Solid Waste Transfer Station. Rail yard containers are transported to the tipping floor at the MCRRF via tipping chassis. The tipping floor area is operated under negative pressure to minimize fugitive odors. All combustion air is drawn from the tipping floor and ducted into the combustion zones of each furnace.

From the refuse pit waste is fed to the furnace feed hopper where solid waste slides by gravity into the refuse chute. A ram feeder pushes the solid waste onto a grate system. The grate system moves the waste through the furnace as the waste is burned.

The combustion system is comprised of three (3) identical mass-burn, water wall furnaces, each nominally capable of burning 600 tpd of refuse on an annual average basis. Within each train, the refuse is charged onto a reverse reciprocating grate for combustion. The combustion gases in the furnace pass through the radiant, convective and economizer sections of the boiler, and then through the air pollution control system (APC). The APC currently consists of an ammonia injection system for control of NOx (SNCR), a dry scrubber for primary acid gas control and an activated carbon injection system for mercury control in series with a baghouse for removal of particulate matter. Finally, the APC system also includes Covanta's proprietary Low NOx (LNTM) system for additional reduction of NOx emissions. Each unit has a furnace dry lime injection system (FDLIS) that is capable of feeding hydrated lime directly into the combustion zone for additional acid gas control on an as needed basis.

Ash is mixed with dolomitic lime as necessary. Ash is wetted, and the ash handling systems and storage containers are enclosed to prevent fugitive particulate emissions. The system is also provided with natural gas fired auxiliary burners are used exclusively for unit warm-up, startup, and shut down situations, as well as to maintain optimum combustion when necessary.

Table 1 summarizes the actual emissions from the facility based on its recent Emission Certification Reports.

The major source threshold for triggering Title V permitting requirements in Montgomery County is 25 tons for VOCs and NOx, 100 tons for the other criteria pollutants, 10 tons for any single hazardous air pollutant (HAP) and 25 tons for the aggregate of all HAP emissions. Since the NOx and HAP emissions are greater than the major source threshold, and in addition the source has solid waste incineration units, which are subject to §129(e) of the Clean Air Act, the MCRRF is required to obtain a Title V- Part 70 Operating Permit under COMAR 26.11.03.01.

Table 1: Actual Emissions

Year	NO_x (TPY)	SO_x (TPY)	PM_{10} (TPY)	CO (TPY)	VOC (TPY)	Total HAP[1] (TPY)
2020	403.	81.5	7.2	53.4	1.0	59.2
2019	470	93.0	4.0	48.2	0.4	57.0
2018	457.2	97.7	5.2	39.0	1.6	48.8
2017	441	102.5	9.9	39.0	1.9	49.20
2016	417	76.94	9.4	43.55	2.07	51.20

[1]includes only non-VOC/ non-PM HAPs

The Title V – Part 70 Operating Permit was issued on January 1, 2019 and expires on October 31, 2023. On December 11, 2020, the U.S. EPA granted a petition to the Environmental Integrity Project and the Chesapeake Climate Action Network (Petitioners) objecting to the issuance of the permit on the basis that the permit did not require sufficient monitoring to assure continuous compliance with the PSD emission limit for HCl. To address the petition, MCRRF has agreed to install and maintain HCl continuous emissions monitors (CEMs) to demonstrate continuous compliance with the PSD emission limit for HCl. Until the CEMs are certified and operational (expected in late June 2022), MCRRF will comply with an interim HCl monitoring plan. A minor modification to the facility's MCRRF's Title V – Part 70 Operating Permit will be issued to incorporate these changes to adequately address the petition.

GREENHOUSE GAS (GHG) EMISSIONS

The MCRRF reported the following greenhouse gases (GHGs) related to Clean Air Act requirements: carbon dioxide, methane, and nitrous oxide. GHGs emissions originate almost entirely from the combustion of municipal solid waste. They were not triggered as part of the original Prevention of Significant Deterioration (PSD) review; therefore, there are no applicable GHG Clean Air Act requirements. While there are no applicable requirements arising from PSD, emission certifications reports for the years 2015, 2016, and 2017 showed that the Montgomery County RRF is a major source for GHG's (threshold: 100,000 TPY CO_2e). The Permittee is required to quantify facility wide GHG's emissions and report them in accordance with Section 3 of the Part 70 permit. Table 2 summarizes the emissions from the MCRRF based on its Annual Emission Certification Reports:

Table 2: Greenhouse Gases Emissions Summary

GHG	Conversion factor	2015 tpy CO_2e	2016 tpy CO_2e	2017 tpy CO_2e
Carbon dioxide CO_2	1	607,824	532,794	603,787
Methane CH_4	25	0.04	0.04	0.07
Nitrous Oxide N_2O	298	0.04	0.04	0.06
Total GHG CO_{2eq}		607,824	532,794	532,794

EMISSION UNIT IDENTIFICATION

The MCRRF has identified the following emission units at the facility as being subject to Title V permitting requirements and having applicable requirements.

Table 3: Emission Unit Identification

Emissions Unit Number	MDE - ARA Registration Number	Emissions Unit Name and Description	Date of Installation
EU – 1	**MDE Reg. No. 2-0132**	One mass burn, water wall municipal waste combustion unit, nominally capable of processing 600 tpd of refuse based on an average higher heating value (hhv) of 5,500 Btu/lb of waste combusted. Unit	May 1, 1995

Emissions Unit Number	MDE - ARA Registration Number	Emissions Unit Name and Description	Date of Installation
		air pollution control system consisting of SNCR, dry scrubber, activated carbon injection, FDLIS, and baghouse. A Permit to Construct for the updated NOx control system was issued on November 20, 2008.	
EU – 2	**MDE Reg. No. 2-0134**	(Same as above)	May 1, 1995
EU – 3	**MDE Reg. No. 2-0135**	(Same as above)	May 1, 1995
EU – 4	(A separate registration number was not assigned to this emission unit.)	Nine (9) material storage silos: four (4) hydrated lime, one (1) pebble lime, one (1) carbon, and three (3) dolomitic lime. Each silo is equipped with a fabric filter to control particulate emissions during pneumatic loading of the silo.	Nov. 1994-June 1995

AN OVERVIEW OF THE PART 70 PERMIT

The Fact Sheet is an informational document. If there are any discrepancies between the Fact Sheet and the Part 70 permit, the Part 70 permit is the enforceable document.

Section I of the Part 70 Permit contains a brief description of the facility and an inventory list of the emissions units for which applicable requirements are identified in Section IV of the permit.

Section II of the Part 70 Permit contains the general requirements that relate to administrative permit actions. This section includes the procedures for renewing, amending, reopening, and transferring permits, the relationship to permits to construct and approvals, and the general duty to provide information and to comply with all applicable requirements.

Section III of the Part 70 Permit contains the general requirements for testing, record keeping and reporting; and requirements that affect the facility as a whole, such as open burning, air pollution episodes, particulate matter from construction and demolition activities, asbestos provisions, ozone depleting substance provisions, general conformity, and acid rain permit. This section includes the requirement to report excess emissions and deviations, to submit an annual emissions certification report and an annual compliance certification report, and results of sampling and testing.

Section IV of the Part 70 Permit identifies the emissions standards, emissions limitations, operational limitations, and work practices applicable to each emissions unit located at the facility. For each standard, limitation, and work practice, the permit identifies the basis upon which the Permittee will demonstrate compliance. The basis will include testing, monitoring, record keeping, and reporting requirements. The demonstration may include one or more of these methods.

Section V of the Part 70 Permit contains a list of insignificant activities. These activities emit very small quantities of regulated air pollutants and do not require a permit to construct or registration with the Department. For insignificant activities that are subject to a requirement under the Clean Air Act, the requirement is listed under the activity.

Section VI of the Part 70 Permit contains State-only enforceable requirements. Section VI identifies requirements that are not based on the Clean Air Act, but solely on Maryland air pollution regulations. These requirements generally relate to the prevention of nuisances and implementation of Maryland's Air Toxics Program.

REGULATORY REVIEW/TECHNICAL REVIEW/COMPLIANCE METHODOLOGY

1. Permitting History

Dates of Initial Construction, Modifications, and Reconstruction.

The original Prevention of Significant Deterioration (PSD) approval for 2,250 tons per day of MSW was issued on April 26, 1990. A PSD Approval Extension with more restrictive emission limits and reduced throughput capacity was issued on February 14, 1992.

A Permit to Construct (PTC) was issued on April 22, 1991. The PTC incorporated more restrictive emission limits and reduced throughput capacity.

A PTC 15-1718-2-0132N was issued for "... three mass burn waterwall combustion trains with a combined nominal capacity of 1800 tons per day....") on February 12, 1993. The original PTC application was received on September 4, 1990. Supplemental information dated October 11, 1990, October 23, 1990, and October 29, 1990 was also incorporated into the application by reference.

A PTC 15-2-0132M (application received on March 15, 1994) was issued on November 23, 1994 for installation of one mercury reduction system to an existing municipal waste incinerator.

A PTC 15-2-0132M (application received on April 27, 1995) was issued on June 8, 1995 for installation of three dolomitic lime systems to three existing municipal waste combustion trains. Each dolomitic lime system consists of one storage bin, one feed hopper, and one baghouse.

A PTC 031-1718-2-0132, 0134 & 0135 (application received on August 25, 2008) was issued on November 20, 2008 for the installation of low NOx equipment on three (3) large municipal waste combustion units (MWC), including the replacement of an anhydrous ammonia SNCR system with an aqueous SNCR system, redistribution of over-air, and reinforcement of the water tubing and refractory.

On June 18, 2013, the PSD Approval issued on February 14, 1992 was amended to include provisions for mass emission rate limitations during startup, shutdown, and malfunction for carbon monoxide, sulfur dioxide, and nitrogen oxides that were equivalent to the stack gas concentration limitations in the original PSD Approval.

There has been no equipment added or removed from the facility during the last 5 years of the current permit that would impact compliance with the conditions of the permit.

Applicable Source-Specific Federal Requirements

The Permittee is subject to the standards and other requirements in the PSD approval issued on February 14, 1992 and as amended on June 18, 2013.

The Permittee is subject to New Source Performance Standards (NSPS) under 40 CFR Part 60, Subpart Ea – "Standards of Performance for Municipal Waste Combustors for Which Construction is Commenced After December 20, 1989 and On or Before September 20, 1994" and the requirements and 40 CFR Part 60, Subpart Cb "Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors That are Constructed on or Before September 20, 1994." Maryland Regulation COMAR 26.11.08.08 was adopted in order to implement Maryland's 111(d) plan which incorporates Subpart Cb emission guidelines. COMAR 26.11.08.08 references paragraphs of 40 CFR Part 60, Subpart Eb "Standards of Performance for Large Municipal Waste .... After September 20, 1994." The facility is not subject to Subpart Eb directly and is subject only to those paragraphs in Subpart Eb that are incorporated by reference in COMAR 26.11.08.08.

On May 10, 2006, the EPA promulgated revisions to Subparts Eb and Cb. The revisions to Subpart Cb included more stringent standards for four regulated pollutants - particulate matter, cadmium, mercury, and lead. Additionally, provisions regarding the minimum required availability of the CEMs were made more stringent. The State amended regulation COMAR 26.11.08.08 to incorporate these changes effective October 8, 2007. Additionally, a revised State 111(d)/129 plan addressing the changes was submitted to and approved by the EPA.

The facility is not subject to any requirements under 40 CFR Part 60, Subpart Db, since it is subject to Maryland Regulation COMAR 26.11.08.08, which incorporates the requirements of an "EPA approved State or Federal section 111(d)/129 plan implementing [40 CFR Part 60] subpart Cb...." **[See Note 1]**

Compliance Assurance Monitoring (CAM) Applicability

The Permittee is not required to submit a Compliance Assurance Monitoring plan under 40 CFR Part 64. The Permittee included with the permit application a CAM applicability analysis for each federally enforceable emission or parametric limit. With one exception, each pollutant or surrogate parameter falls into one of the allowed exempt categories provided in the rule. The exemptions fall into at least one of the following five categories:

Note 1: 40 CFR Part 60, Subpart Db 28, 2009 under 60.40b Applicability and Delegation of Authority: ... 0.40b(k) "Any facility covered by an EPA approved State or Federal section 111(d)/129 plan implementing subpart Cb or subpart BBBB of this part is not covered by this subpart."

1. §64.2(b)(1)(i) Emission limits found in post-1990 regulation (40 CFR Part 60, Subpart Ea or Subpart Cb), except for the PSD PM limit of 0.01 gr/dscf at 12% CO_2 which is deemed equivalent to the 0.012 gr/dscf at 7% O_2 from the Subpart Cb emission guidelines (a post 1990 regulation which has been incorporated into Maryland Regulation COMAR 26.11.08.08).

2. §64.2(b)(1)(vi) Title V permit specifies a continuous compliance determination method (CEM, COM, or PEM).

3. §64.2(a)(2) No add-on control device was used to achieve compliance.

4. §64.2(a)(3) The uncontrolled potential-to-emit of the pollutant in question was below major source thresholds.

5. §64.2(b)(1)(i) facility emissions cap meeting the requirements specified in §70.4(b)(12) or §71.6(a)(13).

2. Applicable Standards/Limits.

I. Emissions Unit Number(s) – EU-1, EU-2 & EU-3

Three (3) 600 TPD mass burn water wall municipal waste combustors.
(MDE Reg. Nos. 2-0132, 2-0134, and 2-0135)

Three (3) mass burn, water wall furnaces, each nominally capable of processing 600 tons per day (tpd) of refuse with an average higher heating value of 5,500 Btu/lb. Each unit's air pollution control system consists of NOx control, dry scrubber, activated carbon injection, baghouse, and a dry lime injection system that is used only as necessary to maintain compliance with acid gas limits.

The following is a list of all applicable standards and limits followed by the compliance demonstration. The requirements are summarized in Tables A and B of the permit, which classifies them according to method of compliance. The compliance demonstration includes a discussion of the testing, monitoring, recordkeeping, and reporting requirements (TMRR) necessary to assure compliance with the applicable standards/limits and the regulatory basis for the TMRR conditions.

When the Department deems the existing source specific TMRR regulations insufficient, additional periodic monitoring is provided COMAR 26.11.03.06C(3). In several instances, the compliance demonstration has been "streamlined" in accordance with the guidance provided by the EPA White Papers #1 and #2 dated July 10, 1995 and March 5, 1996. Finally, the complete results of the annual compliance stack tests that have been completed over the past five years are summarized in section C – STACK TEST DATA.

Emission Standards and Limits [Authority-111(d) plan-COMAR 26.11.08.08 and PSD Approval issued February 14, 1992, amended June 18, 2013]

A. *Short-Term Emission Limits:*

Permit condition 4.1.2 A. Short-Term Emission Limits

(1) Emission units (EU) 1-3 shall comply with all the short term emission standards referenced in Table A of the Permit [Tables A and B of the Fact Sheet]. The regulatory authority for each emission standard is provided.

(2) The short term emission standards apply at all times except for standards traceable to 111(d) plan-COMAR 26.11.08.08 and NSPS Subpart Ea which exempt the standards during periods of startup, shutdown, or malfunction as provided in 40 CFR §60.58b(a) as follows: Note: also reference §60.58a(a) for subpart Ea.

(a) Duration of start-up, shutdown, or malfunction period are limited to 3 hours per occurrence, except for carbon monoxide, where the malfunction period may be extended to 15 hours when loss of boiler water level control (e.g., tube failure) or combustion air control (e.g. loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction [Authority: 111(d) plan-COMAR 26.11.08.08A(3)-Ref. 40 CFR 60.58b(a)(1)(i) and (1)(iii)];

(b) The start-up period commences when the facility begins the continuous burning of municipal solid waste and does not include any warm-up period when the facility is combusting a fossil fuel or any other auxiliary fuel, and no municipal waste is being combusted [Authority: 111(d) plan-COMAR 26.11.08.08A(3)-Ref.40 CFR 60.58b(a)(1)(i)].

(c) To allow for waste to be emptied from the throat to the feeding chute, the shutdown period shall begin 30 minutes after the chute to the loading hopper of the combustion train is closed [Authority: 111(d) plan-COMAR 26.11.08.08A(3)-Ref. 40 CFR 60.58b(a)(1)(i) and (ii)]

(d) During such periods of startup, shutdown or malfunction, emissions monitoring data may be dismissed or excluded from compliance calculations, but must be recorded and reported in accordance with the provisions of 40 CFR 60.59b(d)(7) [Authority: 111(d) plan-COMAR 26.11.08.08A(3)- Ref-40 CFR 60.58b(a)(1)]

With regard to paragraph (c), the Permittee requested in the 2006 renewal application that an allowance for a delay period be inserted for the onset on shutdown from the time the gate to the loading chute is closed. The Permittee suggested a delay time of 30 minutes and provided a calculation based on a volume for the chute of 1,365 cubic feet. This volume is the equivalent of about 17 tons of MSW, or about 42 minutes of operation. In view of this, the request appears reasonable. This paragraph is retained in the current permit renewal and modification.

Table 4: Emission Standards; Performance and Compliance Testing Requirements for Emission Units 1-3

Pollutant/ Parameter	*Emission Standard for a Large MWC*	*Performance/Compliance Test Requirements*
Opacity	A. No visible emissions, other than water in an uncombined form, visible to human observers. The no visible emission requirement does 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. The owner or operator of a municipal waste combustor that is required to install and operate a COM is subject to the requirements in COMAR 26.11.01.10. **Authority**: COMAR 26.11.08.04B, C & D. B. 10 percent opacity with Continuous Opacity Monitoring System (COMS). Averaging time is six minutes. **Authority:** 111(d) plan-COMAR 26.11.08.08A(2)	A. COMS. Quality assurance and quality control requirements are as in COMAR 26.11.31.06 and .07 **Authority:** COMAR 26.11.01.10A(1)(e) and B(1)(a). B. EPA Reference Method 9 observations on an annual basis in accordance with 40 CFR §60.58b(c)(6). Continuous Opacity Monitoring System (COMS) data may be submitted in lieu of Method 9 in accordance with 40 CFR §60.11(e)(5). **Authority**: 111(d) plan-COMAR 26.11.08.08A(2)

Pollutant/ Parameter	***Emission Standard for a Large MWC***	***Performance/Compliance Test Requirements***
Particulate Matter	A. 0.01 gr/dscf adjusted to 12% CO_2 (dry gas) **Authority:** PSD Approval (2-14-92, amended 6-18-2013) B. 34 mg/dscm corrected to 7 percent O_2 (dry basis) **Authority:** 40 CFR 60 subpart Ea-§60.52a(a) C. 25 mg/dscm, adjusted to 7% O_2 (dry gas) **Authority:** 111(d) plan-COMAR 26.11.08.08A(2)	EPA Reference Method 5. Annual test, methods and procedures as specified in 40 CFR 60.58b(c). Standard C represents the most stringent particulate matter standard. **Authority:** 111(d) plan-COMAR 26.11.08.08A(2)

Pollutant/ Parameter	***Emission Standard for a Large MWC***	***Performance/Compliance Test Requirements***
SO_2 (Sulfur Dioxide)	A. 30 ppmv adjusted to 7% O_2 (dry gas) - 3 hr avg. or at least 85 percent removal efficiency whichever is less restrictive. The standard applies at all times except to an emission unit during periods of startup, shutdown, or malfunction (SSM) of that emission unit when only the alternative equivalent SO_2 standard identified in Table 5 applies. **Authority:** PSD Approval (2-14-92, amended 6-18-2013) B. 30 parts per million by volume, corrected to 7 percent oxygen (dry basis). 24-hour geometric mean or at least 80 percent reduction whichever is less restrictive. **Authority**: NSPS Subpart Ea §60.54a(c) C. 29 ppmv adjusted to 7% O_2 (dry gas) - 24 hr. geometric mean or 75 percent reduction, whichever is less restrictive **Authority:** COMAR 26.11.08.08A(2)	CEMS. Applicable test procedures and methods as specified in 40 CFR 60.58b(e) or as otherwise provided for in EPA Reference Method 19. **Authority:** 111(d) plan-COMAR 26.11.08.08A(2)

Pollutant/ Parameter	***Emission Standard for a Large MWC***	***Performance/Compliance Test Requirements***
NOx (Oxides of Nitrogen)	A. 180 ppmv corrected to 7% O_2 (dry gas) - 24 hr. avg. The standard applies at all times except to an emission unit during periods of startup, shutdown, or malfunction (SSM) of that emission unit when only the alternative equivalent NOx standard identified in Table 5 applies. **Authority**: PSD Approval (2-14-92, amended 6-18-2013) B. 180 ppmv, corrected to 7 percent oxygen (dry basis) .24-hour daily arithmetic average. **Authority**: Subpart Ea §60.55a C. 205 ppmv corrected to 7 percent oxygen (dry basis) based on a 24 hr. arithmetic average **Authority**: 111(d) plan-COMAR 26.11.08.08A(2)	CEMS. Applicable test procedures and methods as provided in 40 CFR 60.58b(h). **Authority**: 111(d) plan-COMAR 26.11.08.08A(2)

Pollutant/ Parameter	*Emission Standard for a Large MWC*	*Performance/Compliance Test Requirements*
CO (Carbon Monoxide)	A. 200 ppmv adjusted to 7% O_2 (dry gas) -1 hr. avg. 100 ppmv corrected to 7 percent O_2 (dry basis) - 4 hr. block avg. 50 ppmv adjusted to 7% O_2 (dry gas)-24 hr. block avg. The standards apply at all times except to an emission unit during periods of startup, shutdown, or malfunction (SSM) of that emission unit when only the alternative equivalent CO standards identified in Table 5 apply. **Authority**: PSD Approval (2-14-92, amended 6-18-2013) B. 100 ppmv corrected to 7 percent O_2 (dry basis) - 4 hr. block avg. **Authority**: NSPS subpart Ea -40 CFR §60.56a; 111(d) plan-COMAR 26.11.08.08A(2)	CEMS. Methods and procedures as specified in 40 CFR 60.58b(b) and 40 CFR 60.58b(i)(1) - (5). **Authority**: 111(d) plan-COMAR 26.11.08.08A(2)

Pollutant/ Parameter	***Emission Standard for a Large MWC***	***Performance/Compliance Test Requirements***
HCl (Hydrogen Chloride)	A. 25 ppmv on a 1-hr avg. corrected to 7% O_2 (dry gas) or at least 95% removal efficiency whichever is less restrictive. **Authority**: PSD Approval (2-14-92, amended 6-18-2013) B. 25 ppmv corrected to 7% O_2 (dry basis) or at least 95% removal efficiency whichever is less restrictive. **Authority**: Subpart Ea §60.54a(d) C. 29 pppv adjusted to 7%oxygen (dry basis) or 95% reduction whichever is less restrictive **Authority**: 111(d) plan-COMAR 26.11.08.08A(2)	Pre-Certified CEM Operation EPA Reference Method 26. Annual test except as provided in 40 CFR 60.58b(f). Applicable test procedures and methods as provided in 40 CFR 60.58b(f). Post-Certified CEM Operation CEMs. Applicable test procedures and methods as specified in 40 CFR 60.58b(f)(8) **Authority**: 111(d) plan-COMAR 26.11.08.08A(2)
Dioxins /Furans	30 ng/dscm (total mass) corrected to 7% O_2 (dry gas) **Authority**: PSD Approval (2-14-1992, amended 6-18-2013); 40 CFR 60.53a and 111(d) plan-COMAR 26.11.08.08A(2)- All these limits are the same.	EPA Reference Method 23. Annual test except as provided in 40 CFR 60.58b(g) (5) (iii). Applicable test procedures and methods as specified in 40 CFR 60.58b(g). **Authority**: 111(d) plan-COMAR 26.11.08.08A(2)
Cd (Cadmium)	35 µg/dscm adjusted to 7% O_2 (dry gas) **Authority**: 111(d) plan-COMAR 26.11.08.08A(2)	EPA Reference Method 29. Annual test except as provided in 40 CFR 60.58b(d). Applicable test procedures and methods as specified in 40 CFR 60.58b(d). **Authority**: COMAR 26.11.08.08A(2)

Pollutant/ Parameter	***Emission Standard for a Large MWC***	***Performance/Compliance Test Requirements***
Pb (Lead)	A. 2.5 mg/dscm corrected to 12% CO_2 (dry basis) **Authority**: PSD Approval (2-14-92, amended 6-18-2013) B. 400 µg/dscm corrected to 7% O_2 (dry basis) **Authority**: 111(d) plan-COMAR 26.11.08.08A(2)	EPA Reference Method 29. Annual test except as provided in 40 CFR 60.58b(d). Applicable test procedures and methods as specified in 40 CFR 60.58b(d). **Authority**: COMAR 26.11.08.08A(2)
Hg (Mercury)	A. 3.4 mg/dscm corrected to 12% CO_2 (dry basis) **Authority**: PSD Approval (2-14-92, amended 6-18-2013) B. 50 µg/dscm at 7 percent O_2or 85% reduction by weight applies if less restrictive than the above. **Authority**: 111(d) plan-COMAR 26.11.08.08A(2)	EPA Reference Method 29. Annual test except as provided in 40 CFR 60.58b(d) and (m). Applicable test procedures and methods as specified in 40 CFR 60.58b(d). **Authority**: COMAR 26.11.08.08A(2)
MWC Load	Not to exceed 110 percent of maximum load during most recent dioxin/furan performance test. **Authority**: 111(d) plan-COMAR 26.11.08.08A(2)	Continuous monitoring – 4 hr. block arithmetic average steam load. Applicable test procedures and methods as provided in 40 CFR 60.58b(i)(6). **Authority**: 111(d) plan-COMAR 26.11.08.08A(2)
Temperature	The maximum particulate matter control device inlet temperature must not exceed by more than 17 degrees Celsius the temperature during the most recent dioxin/furan test. **Authority:** 40CFR 60.56a(c); 111(d) plan-COMAR 26.11.08.08A(2)	Continuous monitoring. The temperature shall be calculated in 4-hr. block arithmetic averages Applicable test procedures and methods satisfying the requirements of 40 CFR 60.58b(i)(7). **Authority:** 40 CFR 60.58a (h)(7) and 111(d) plan-COMAR 26.11.08.08A(2)

Pollutant/ Parameter	***Emission Standard for a Large MWC***	***Performance/Compliance Test Requirements***
Fugitive Ash Emissions	Visible emissions less than 5 percent of the observation period during ash transfer. **Authority:** 111(d) plan-COMAR 26.11.08.08A(2)	EPA Reference Method 22 observations as specified in 40 CFR 60.58b(k). Annual test. The emission limit excludes visible emissions discharged inside buildings or enclosures of ash conveying systems or during maintenance and repair of ash conveying systems as specified in 40 CFR 60.55b. **Authority:** 111(d) plan-COMAR 26.11.08.08A(2)
Sulfuric Acid Mist	46 mg/dscm - 3 hr. avg., adjusted to 12% carbon dioxide (dry gas). **Authority:** PSD Approval (2-14-1992, amended 6-18-2013)	Annual test using EPA reference Method 8 or equivalent. **Authority:** COMAR 26.11.03.06C(3)-Periodic monitoring
Fluorides (total)	7.1 mg/dscm - 3 hr. avg., adjusted to 12% carbon dioxide (dry gas). **Authority:** PSD Approval (2-14-1992, amended 6-18-2013)	Annual test using EPA reference Method 13B or equivalent. **Authority:** COMAR 26.11.03.06C(3)-Periodic monitoring
Beryllium	0.82 micrograms/dscm-3 hr. avg., adjusted to 12% carbon dioxide (dry gas). **Authority**: PSD Approval (2-14-1992, amended 6-18-2013)	Annual test using EPA reference Method 29 or equivalent. **Authority:** COMAR 26.11.03.06C(3)-Periodic monitoring
Hydro-carbons (non-methane)	10 mg/dscm-3 hr. avg., adjusted to 12% carbon dioxide (dry gas). **Authority**: PSD Approval (2-14-92, amended 6-18-2013)	Annual test using EPA reference Method 25A or equivalent. **Authority**: COMAR 26.11.03.06C(3) Periodic monitoring

Table 5: Emission Standards; Facility Wide Performance Requirements Applicable during Startup, Shutdown and Malfunction Periods

Pollutant/ Parameter	*Emission Standard for a Large MWC*	*Performance Requirements*
SO_2 (Sulfur Dioxide)	60.3 lbs/hr timed average mass loading over a 3-hour period on a facility wide basis beginning with a start-up, shutdown and/or malfunction operation period. **Authority**: PSD Approval (2-14-92, amended 6-18-2013)	CEMS. Methods and procedures as specified in 40 CFR 60.58b(e). **Authority**: 111(d) plan-COMAR 26.11.08.08A(2)
NOx (Oxides of Nitrogen)	260 lbs/hr timed average mass loading over a 24-hour period on a facility wide basis beginning with a start-up, shutdown and/or malfunction operation period. **Authority**: PSD Approval (2-14-92, amended 6-18-2013)	CEMS. Methods and procedures as specified in 40 CFR 60.58b(h). **Authority**: 111(d) plan-COMAR 26.11.08.08A(2)
CO (Carbon Monoxide)	A. 176 lbs/hr timed average mass loading over a 1-hour period on a facility wide basis beginning with a start-up, shutdown and/or malfunction operation period. B. 87.9 lbs/hr timed average mass loading over a 4-hour period on a facility wide basis beginning with a start-up, shutdown and/or malfunction operation period. C. 44.0 lbs/hr timed average mass loading over a 24-hour period on a facility wide basis beginning with a start-up, shutdown and/or malfunction operation period. **Authority**: PSD Approval (2-14-92, amended 6-18-2013)	CEMS. Methods and procedures as specified in 40 CFR 60.58b(b) and 40 CFR 60.58b(i)(1) - (5). **Authority**: 111(d) plan-COMAR 26.11.08.08A(2)

Procedures for Compliance Demonstration with the Emission Standards and Limits listed in Tables A and B

Opacity

A. No emissions, other than water in an uncombined form, visible to human observers. The no visible emission requirement does 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. The owner or operator of a municipal waste combustor that is required to install and operate a COM is subject to the requirements in COMAR 26.11.01.10. [**Authority**: COMAR 26.11.08.04B, C & D]

B. 10 percent opacity with Continuous Opacity Monitoring System (COMS). Averaging time is six minutes. [**Authority**: 111(d) plan-COMAR 26.11.08.08A(2)]

Compliance Demonstration

A. **COMAR 26.11.08.04** – Visible Emissions Limitation.

Monitoring requirements regulatory authority: COMAR 26.11.01.10A(1) – Continuous Opacity Monitoring Requirements. Applicability and Exceptions; COMAR 26.11.01.10B(1) – General Requirements for COMS; COMAR 26.11.01.10C(1),(3), (4) and (5) – Certification and Quality Assurance Procedures; and COMAR 26.11.31 – Quality Assurance Requirements for Continuous Opacity Monitors (COMs).

> The Permittee must install and operate a COM that has been approved by the Department. All certification testing, including certification performance tests and audits, shall be performed in accordance with 40 CFR Part 60, Appendix B, as amended. The Permittee must perform quality assurance and quality control requirements as stated in COMAR 26.11.31.

Record Keeping and Reporting Requirements regulatory authority: COMAR 26.11.01.10D(1) – Record Keeping and Reporting Requirements – System Downtime Reporting Requirements; and COMAR 26.11.01.10D(2) – Data Reporting Requirements, COMAR 26.11.01.10E – Record Keeping.

System Downtime Reporting Requirements: COMAR 26.11.01.10D(1)

(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.

Data Reporting Requirements: COMAR 26.11.01.10D(2)

(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.

Record Keeping: COMAR 26.11.01.10E

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.

B. 111(d) plan–Large MWC with a Capacity Greater than 250 Tons Per Day
COMAR 26.11.01.10E – Emission Standards and General Requirements.

10 percent opacity with COMS. Averaging time is 6 minutes.

Performance and Compliance Test Requirements – EPA Reference Method 9 and COMS. Applicable test procedures and methods as specified in 40 CFR §60.58b(c). Quality assurance and quality control requirements are as in COMAR 26.11.31. Notwithstanding the requirements in COMAR 26.11.01.10B(6)(a)—(c), the Department may determine compliance and non-compliance with the visible emission limitations by performing EPA reference Method 9 observations based on a 6 minute block average. [**Authority**: 111(d) plan-COMAR 26.11.08.08A(2)]

COMAR 26.11.08.08B – Monitoring Requirements.

COMAR 26.11.08.08B(1)(a) – "A person who owns or operates an existing MWC subject to this regulation shall: (a) Install, calibrate, operate, and maintain continuous monitors for carbon monoxide, oxygen, opacity, oxides of nitrogen, and sulfur dioxide;"

COMAR 26.11.08.08B(3) – "The monitors required by §B(1)(a) and (b) of this regulation shall meet the installation, certification, reporting, record-keeping, and other requirements of COMAR 26.11.01.10, and 26.11.01.11, performance specifications in 40 CFR Part 60, Appendix B, the quality assurance procedures in 40 CFR Part 60, Appendix F, all requirements in 40 CFR §60.58b, COMAR 26.11.31."

"all requirements in 40 CFR §60.58b" include the following:

40 CFR §60.58b(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.

.58b(c)(7)- Requirement for initial performance test-
Note: Initial test was completed upon initial startup in 1994

.58b(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.

40 CFR §60.58b(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."

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

"(ii) The continuous opacity monitoring system shall be installed, evaluated, and operated in accordance with §60.13 of subpart A of this part."

"§ 60.13 Monitoring requirements.

(a) For the purposes of this section, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of this section upon promulgation of performance specifications for continuous monitoring systems under appendix B to this part and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, appendix F to this part, unless otherwise specified in an applicable

subpart or by the Administrator. Appendix F is applicable December 4, 1987.
(b) All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests under §60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device (c) If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under §60.11(e)(5), he shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, appendix B, of this part before the performance test required under §60.8 is conducted. Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under §60.8 or within 30 days thereafter in accordance with the applicable performance specification in appendix B of this part, The owner or operator of an affected facility shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator under section 114 of the Act.

(1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under §60.8 and as described in §60.11(e)(5) shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in paragraph (c) of this section at least 10 days before the performance test required under §60.8 is conducted.
(2) Except as provided in paragraph (c)(1) of this section, the owner or operator of an affected facility shall furnish the Administrator within 60 days of completion two or, upon request, more copies of a written report of the results of the performance evaluation."

Compliance status discussion:

The Permittee prior to initial operation installed and certified a COMS that meets the specifications of PS–1 in appendix B of 40 CFR part 60. The Permittee completes quality assurance and quality control requirements as in COMAR 26.11.31. The Permittee submits quarterly summary COMS reports as required by COMAR 26.11.01.10D to demonstrate compliance with the no visible emissions requirement of COMAR 26.11.08.04. The Permittee completes a Method 9 visible emissions observation during the annual particulate emissions stack test for demonstrating compliance with the 10 percent opacity limit of COMAR 26.11.08.08A(2),(§60.58b(c)). The

Permittee maintains all records as required. The Permittee has demonstrated continuous compliance with all the opacity limits and monitoring, record keeping, and reporting requirements since initial startup of the facility.

Particulate Matter

A. 0.01 gr/dscf adjusted to 12% CO_2 (dry gas)
[Authority: PSD Approval (2-14-92, amended 6-18-2013)]

B. 34 mg/dscm corrected to 7 percent O_2 (dry basis)
[Authority: 40 CFR 60 subpart Ea- §60.52a(a)

C. 25 mg/dscm, adjusted to 7% O_2 (dry gas)
[Authority: 111(d) plan-COMAR 26.11.08.08A(2)]

Streamlining of monitoring for all three emissions limits. The 25 mg/dscm at 7% O_2 emissions limit is equivalent to 0.010365 gr/dscf at 12% CO_2 or 0.010925 gr/dscf at 7% O_2. Continuous compliance with the 25 mg/dscm emissions limit will assure compliance with both the PSD limit and the Subpart Ea limit. Note that compliance with a limit of 0.01 gr/dscf allows for a range of 0.010 up to 0.014 gr/dscf. Therefore, continuous compliance with 25 mg/dscm at 7% O_2 will always demonstrate compliance with 0.01 gr/dscf. at 12% CO_2. The monitoring requirements for the 111(d) plan-COMAR 26.11.08.08A(2) will be used to collect data to demonstrate continuous compliance for all the PM emissions limits.

The following table shows the results of compliance stack tests for the past 5 years.

Calendar year of Test	Unit 1	Unit 2	Unit 3	Emissions Standard[1]
2020	1.80	1.13	7.76	
2019	1.07	1.84	2.89	
2018	1.65	0.614	0.889	
2017	6.19	3.47	5.10	25 mg/dscm
2016	7.14	2.88	4.23	25 mg/dscm

[1] Corrected to 7% Oxygen

Compliance Demonstration strategy for PM

The compliance demonstration strategy for PM includes an annual stack test, analysis of Continuous Opacity Monitoring system (COMS) data and carbon monoxide (CO) CEMS, continuous monitoring of the furnace roof temperature in order to maintain the temperature at or above 1089 °F, and

continuous monitoring of the waste feed rate for each of the combustion units.

The Permittee must conduct annual stack tests meeting the requirements of COMAR 26.11.08.08A(2) which incorporates by reference the requirements of §58b(c)

Opacity is a surrogate for PM emissions. The Permittee is required to operate and maintain a COMS. The opacity standard has been established at a limit which assures compliance with the PM standard. High opacity readings may indicate that the particulate control systems are not performing properly. The Department will analyze the opacity data to determine whether or not stack tests in addition to the annual stack test are warranted to demonstrate continuous compliance with the PM limit.

CO is an indicator of complete combustion. Implementation of good combustion practices to assure complete combustion is the most effective strategy in reducing unburned carbon as well as hydrocarbon emissions. Good combustion control practices include proper design, construction, operation and maintenance practices for combustion grates, boilers, and air pollution controls. Low CO levels are an indicator of complete combustion and that the unit is being operated in a manner that minimizes not only CO emissions but also emissions of other pollutants such as particulates. Maintaining low CO emissions ensures complete combustion of all combustible waste and destruction of organic compounds.

The Permittee must continuously monitor the furnace roof temperature in order to maintain the temperature at or above 1089 °F. [**Authority**: Permit to Construct #15-1718-2-0132N, Part B(3)]. The roof temperature relates to combustion chamber temperatures which are an indication of good combustion. Poor combustion can cause greater particulate loading of the particulate control system which may lead to higher PM emissions.

The Permittee must continuously monitor the load level of each municipal waste combustion unit to demonstrate that that the units are not operating at a load higher than during the annual compliance stack tests or that waste combustion units are not overloaded which could cause higher PM emission rates. The maximum demonstrated municipal waste combustor unit load was determined during the initial performance test for dioxins/furans and shall continue to be determined during each subsequent performance test for which compliance with the dioxin/furan emission limit is demonstrated. The maximum demonstrated municipal unit load shall be the highest 4-hour arithmetic average load 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 conducted on only one MWC unit at the MWC plant, as provided in §60.58b(g)(5)(iii), the Permittee may elect to apply the same MWC unit load from the tested MWC unit to the other MWC units [**Authority**: COMAR 26.11.08.08A(2) which incorporates by reference §60.58b (i)(8)].

The Permittee must not operate a municipal waste combustion unit at loads greater than 110 percent of the maximum demonstrated load (4-hour block average) for that municipal waste combustion unit [**Authority**: COMAR 26.11.08.08A(2) which incorporates by reference §60.53b(b)].

The Permittee must keep of records of the particulate matter stack tests and the relevant continuously monitored parameters. The Permittee must keep all records onsite in paper copy or electronic format unless the Department or the EPA Administrator approves another format. The Permittee must keep all records on each municipal waste combustion unit for at least 5 years and make the records available for submittal to the EPA Administrator, the Department, or for onsite review by an inspector [**Authority**: COMAR 26.11.08.08C which incorporates by reference §60.59b(d)]

The Permittee must submit reports in accordance with §60.59b of Subpart Eb, as applicable, except for the siting requirements under §60.59b(a), (b)(5), and (d)(11) of 40 CFR Part 60, Subpart Eb. [**Authority**: COMAR 26.11.08.08C]

The requirements incorporated by reference with §60.59b include the following:

§60.59b(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 ... .,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 ....., municipal waste combustor unit load level, ... based on the data recorded under paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(E) of this section.

(d)(2)(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)(2)(ii)(D) All 4-hour block arithmetic average municipal waste combustor unit load levels .....

(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 ...., municipal waste combustor unit load, ... were not obtained based on the data recorded under paragraph (d)(6) of this section.

(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)(iv) Municipal waste combustor unit load data;

(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 ...., municipal waste combustor unit load, ... were excluded from the calculation of ...., or parameters based on the data recorded under paragraph (d)(7) of this section.

(d)(7) Identification of each occurrence that ...., or operational data (i.e. , ..., unit load, ...) have been excluded from the calculation of ....or parameters, and the reasons for excluding the data.

(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.

§60.59b(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 ...., municipal waste combustor unit load level,....., opacity.

(d)(3) Identification of the calendar dates when any of the .....,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)(2)(ii)(D) All 4-hour block arithmetic average municipal waste combustor unit load levels .....

(d)(2)(i)(A) All 6-minute average opacity levels as specified under §60.58b(c).

(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 combustor unit load level, ..., 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)(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.

§60.59b(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 on§60.59b site as a paper copy for a period of 5 years.

§60.59b(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.

Compliance status discussion:

The Permittee has completed all tests as required and the results have always demonstrated compliance with the PM emission standards. The Permittee has maintained all records as required and submitted all report as required. The opacity data collected from the COMS has demonstrated continuous compliance with the opacity standards, the CO CEMS data has shown continuous compliance with the CO limit, data from the temperature monitor for roof temperatures has shown continuous compliance with the temperature limit, and the records of the monitoring of the MWC feed rate has shown continuous compliance with the fed rate limit.

Sulfur Dioxide (SO_2)

A. 30 ppmv adjusted to 7% O_2 (dry gas) - 3 hr avg. or at least 85 percent removal efficiency whichever is less restrictive.

The standard applies at all times except to an emission unit during periods of startup, shutdown, or malfunction (SSM) of that emission unit when only the alternative equivalent SO_2 standard identified in Table 5 applies. [**Authority**: PSD Approval (2-14-92, amended 6-18-2013)]

B. 30 parts per million by volume, corrected to 7% O_2 (dry basis). 24-hour geometric mean or at least 80 percent reduction whichever is less restrictive. [**Authority**: NSPS Subpart Ea §60.54a(c)]

C. 29 ppmv adjusted to 7% O_2 (dry gas) - 24 hr. geometric mean or 75 percent reduction, whichever is less restrictive. [**Authority**: COMAR 26.11.08.08A(2)]

Performance/Compliance Test Requirement:

CEMS. Applicable test procedures and methods as provided in 40 CFR 60.58b(e). [**Authority**: 111(d) plan-COMAR 26.11.08.08A(2)]

Compliance Exceptions:

The standards in COMAR 26.11.08.08A(2) apply at all times except during periods of startup, shutdown, or malfunction as provided in 40 CFR §60.58b(a). [**Authority**: 111(d) plan-COMAR 26.11.08.08A(3)]

§60.58b(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).

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

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

(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).

(a)(2) The opacity limits for air curtain incinerators specified in §60.56b apply at all times as specified under §60.56b except during periods of malfunction. Duration of malfunction periods are limited to 3 hours per occurrence.

Note: 60.58b(a)(2) does not apply to this facility-not an air curtain incinerator.

§60.58b(b)(8)-During loss of boiler water level control or loss of combustion air control malfunction period as specified in §60.58b(a)(1)(iii), a diluent cap of 14 percent for oxygen or 5 percent for carbon dioxide may be used in the emissions calculations for sulfur dioxide and nitrogen oxides .

Compliance demonstration strategy for Sulfur Dioxides:

The monitoring, record keeping, and reporting requirements that are required in order to demonstrate compliance with the 111(d) plan-COMAR 26.11.08.08A(2) limit will also be used to generate data to demonstrate compliance with the PSD and Subpart Ea SO_2 limits. These monitoring, record keeping, and reporting requirements are the same as for NOx. For details, see the requirements that were listed in the preceding discussion for NOx. In addition, the following requirements for SO_2 CEMS in §60.58b(e) of subpart Eb apply:

§60.58b(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)(1) The EPA Reference Method 19, section 4.3, shall be used to calculate the daily geometric average sulfur dioxide emission concentration.

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

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

(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.

(e)(7) At a minimum, valid continuous monitoring system hourly averages shall be obtained as specified in paragraphs (e)(7)(i) and (e)(7)(ii) for 90 percent of the operating hours per calendar quarter and 95 percent of the operating days per calendar year that the affected facility is combusting municipal solid waste.

(e)(7)(i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

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

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

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

(e)(10) The procedures under §60.13 of subpart A of this part shall be followed for installation, evaluation, and operation of the continuous emission monitoring system.

(e)(11) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the municipal waste combustor as specified under §60.8 of subpart A of this part.

(e)(12) The continuous emission monitoring system shall be operated according to Performance Specification 2 in appendix B of this part. For sources that have actual inlet emissions less than 100 parts per million dry volume, the relative accuracy criterion for inlet sulfur dioxide continuous emission monitoring systems should be no greater than 20 percent of the mean value of the reference method test data in terms of the units of the emission standard, or 5 parts per million dry volume absolute value of the mean difference between the reference method and the continuous emission monitoring systems, whichever is greater.

(e)(12)(i) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 2 in appendix B of this part, sulfur dioxide and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (e)(12)(i)(A) and (e)(12)(i)(B) of this section.

(e)(12)(i)(A) For sulfur dioxide, EPA Reference Method 6, 6A, or 6C, or as an alternative ASME PTC–19–10–1981—part10, shall be used.

(e)(12)(i)(B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC–19–10–1981—part10, as applicable, shall be used.

(e)(12)(ii) The span value of the continuous emissions monitoring system at the inlet to the sulfur dioxide control device shall be 125 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit. The span value of the continuous emission monitoring system at the outlet of the sulfur dioxide control device shall be 50 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit.

(e)(13) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 1 in appendix F of this part.

(e)(14) When sulfur dioxide emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and/or zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by EPA or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 90 percent of the hours per calendar quarter and 95 percent of the hours per calendar year that the affected facility is operated and combusting municipal solid waste.

Compliance Demonstration for PSD mass limits during periods of SSM

The 3 hour PSD concentration limit (ppmv) has been converted into an equivalent mass emission limit. The calculation was based on the same volumetric loading and O_2 percent as used in the PSD Approval extension (i.e., 72,963 dscfm and 8.1% O_2). The Permittee shall use flue gas flow meters and a DAS for the continuous emission rate monitoring system (CERMS) installed for measuring CO_2 in order to convert concentrations in ppmv into mass concentrations in lbs. per hour during periods of SSM for the purpose of demonstrating compliance with the PSD Approval SO_2 emission limit. The Permittee is required to have a continuous emission rate monitoring system (CERMS) for measuring CO_2 in accordance with 40 CFR part 98, subpart C (large MWC are required to do Tier 4 CO_2 monitoring). Additionally, 40 CFR part 98, subpart C, specifies that the CERMS is subject to QA/QC procedures in 40 CFR 60, appendix B, Performance Specification 6 and 40 CFR 60, Appendix F.

The Permittee must maintain records of the emissions data collected by the CERMS during periods of SSM and submit records of the mass emissions of SO_2 during periods of SSM to the Department upon request. [**Authority**: COMAR 26.11.03.06C(3)]

Compliance Demonstration for Percent Reduction Limit

In demonstrating a 95 percent reduction of HCl emissions or an 85 percent reduction of SO_2 emissions, whenever the furnace dry lime injection system (FDLIS) is operating the Permittee may receive credit for a demonstrated emissions reduction taking place prior to the inlet CEMS (or inlet stack test ports) for HCl or SO_2 resulting from direct injection of lime into the boiler, as follows:

$$\%R = 100 - (100 - \%Z)*C_{outlet}/C_{inlet}$$

%R - percent reduction of emissions of HCl or SO_2
%Z - demonstrated percent reduction prior to inlet CEMS
C_{inlet} - dry inlet concentration in ppmv adjusted to 7% O_2
C_{outlet} - dry outlet concentration in ppmv adjusted to 7% O_2

Prior to using this credit the Permittee shall receive written approval from the Department upon submitting satisfactory test data demonstrating such a reduction.

The Department accepted MCRRF request that a credit towards HCl and SO_2 reductions from the usage of hydrated lime injected directly into the boiler be included in the permit conditions. The percent reduction %R is normally calculated as follows:

$$\%R = (1 - C_{outlet}/C_{inlet}) *100$$

Where C_{outlet} is the concentration at the stack (after all control devices) and C_{inlet} is the concentration prior to the control device for SO_2 or HCl. Currently hydrated dry lime is introduced into the boiler prior in the emissions train to the inlet stack test ports or the inlet CEMS, which are located at the economizer. MCRRF determined by emissions testing done in 1996 that the measured inlet concentration C_{inlet} is reduced by a minimum of 35% in the case of HCl and 50% in the case of SO_2, even when the lime injection was operating at 20% of the design maximum lime feed rate, which is the minimum feed rate. Therefore to calculate the actual emissions reduction, one should use a corrected inlet concentration C^1 instead:

$$\%R = (1 - C_{outlet}/C^1)*100$$

Where the relationship

$$C_{inlet} = C^1 *(1- \%Z/100)$$

C^1 is the concentration that would obtain if there were no lime injection and %Z is the minimum percent reduction of the inlet concentration determined by emission testing for HCl and SO_2. Therefore, to obtain the actual emissions reduction from the measured inlet/outlet concentrations, one should use the following:

$$\%R = 100 - (100 - \%Z)*C_{outlet}/C_{inlet}$$

which will apply whenever the lime feeder is in operation. The percent reduction %Z is likely to be least at the highest pollutant loadings, so the testing should be done at or near the highest pollutant loadings expected to be encountered.

Compliance Status discussion:

The Permittee installed a CEM system for sulfur dioxides that meets the PS specification of 40 CFR Part 60 Appendix B, continues to operate the SO_2 CEMS and performs QA/QC procedures as required, maintains all records as required, and submits all reports as required. The Permittee has demonstrated continuous compliance with all the SO_2 emission standards.

Nitrogen Oxides (NOx)

A. 180 ppmv corrected to 7% O_2 (dry gas) - 24 hr. avg.
The standard applies at all times except to an emission unit during periods of startup, shutdown, or malfunction (SSM) of that emission unit when only the alternative equivalent NOx standard identified in Table 5 applies.
[**Authority:** PSD Approval (2-14-92, amended 6-18-2013)]

B. 180 ppmv, corrected to 7% O_2 (dry basis) .24-hour daily arithmetic average.
[**Authority:** subpart Ea §60.55a]

C. 205 ppmv corrected to 7% O_2 (dry basis) based on a 24 hr. arithmetic average. [**Authority:** 111(d) plan-COMAR 26.11.08.08A(2)]

Performance/Compliance Test Requirement:

CEMS. Applicable test procedures and methods as provided in 40 CFR §60.58b(h).

Compliance Exceptions:

The standards in COMAR 26.11.08.08A(2) apply at all times except during periods of startup, shutdown, or malfunction as provided in 40 CFR §60.58b(a). [**Authority**: 111(d) plan-COMAR 26.11.08.08A(3)

§60.58b(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).

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

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

(iii) For the purpose of compliance with the carbon monoxide emission limits in §60.53b(a), if a loss of boiler water level control (i.e., 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).

(a)(2) The opacity limits for air curtain incinerators specified in §60.56b apply at all times as specified under §60.56b except during periods of malfunction. Duration of malfunction periods are limited to 3 hours per occurrence.

Note: 60.58b(a)(2) does not apply to this facility-not an air curtain incinerator.

§60.58b(b)(8)-During loss of boiler water level control or loss of combustion air control malfunction period as specified in §60.58b(a)(1)(iii), a diluent cap of 14 percent for oxygen or 5 percent for carbon dioxide may be used in the emissions calculations for sulfur dioxide and **nitrogen oxides** [**Authority**: 111(d) plan-COMAR 26.11.08.08A(3)].

Compliance Demonstration:

The monitoring, record keeping, and reporting requirements that were required to demonstrate compliance with the 111(d) plan (COMAR 26.11.08.08A(2)) emission limit were also used to generate data to demonstrate compliance with the PSD and Subpart Ea NOx limits.

Monitoring Requirements:

The Permittee shall install, calibrate, operate, and maintain continuous emission monitors for carbon monoxide and oxygen. The monitors shall be located at the combustor outlet exit to measure concentrations of carbon monoxide. [**Authority**: 111(d) plan-COMAR 26.11.08.08B(1) and (2)]

The monitors required by §B(1)(a) and (b) of this regulation shall meet the installation, certification, reporting, record-keeping, and other requirements of COMAR 26.11.01.10, COMAR 26.11.01.11, performance specifications in 40 CFR Part 60, Appendix B, the quality assurance procedures in 40 CFR Part 60, Appendix F, all requirements in 40 CFR §60.58b, and COMAR 26.11.01.11C. [**Authority**: COMAR 26.11.08.08B(3)]

"All requirements in 40 CFR §60.58b" that are incorporated by compliance include the following:

§60.58b(a) The provisions for startup, shutdown, and malfunction are provided in paragraphs (a)(1) and (a)(2) of this section.

See "Compliance Exceptions" above for 60.58b(a)(1) and (a)(2).

§ 60.58b(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, ... 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.

(b)(1) The span value of the oxygen (or 20 percent carbon dioxide) monitor shall be 25 percent oxygen (or 20 percent carbon dioxide).

(b)(2) The monitor shall be installed, evaluated, and operated in accordance with §60.13 of subpart A of this part.

(b)(3) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under §60.8 of subpart A of this part.

(b)(4) The monitor shall conform to Performance Specification 3 in appendix B of this part except for section 2.3 (relative accuracy requirement).

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

Note: 60.58b(b)(6) – (b)(7) address use of CO_2 monitors in lieu of O_2 as diluent monitors and do not apply to the MCRRF.

(b)(8) During loss of boiler water level control or loss of combustion air control malfunction period as specified in §60.58b(a)(1)(iii), a diluent cap of 14 percent for oxygen or 5 percent for carbon dioxide may be used in the emissions calculations for sulfur dioxide and **nitrogen oxides.**.

§60.58b(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)(1) The EPA Reference Method 19, section 4.1, shall be used for determining the daily arithmetic average nitrogen oxides emission concentration.

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

(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.

(h)(6) At a minimum, valid continuous emission monitoring system hourly averages shall be obtained as specified in paragraphs (h)(6)(i) and (h)(6)(ii) of this section for 90 percent of the operating hours per calendar quarter and for 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.

(h)(6)(i) At least 2 data points per hour shall be used to calculate each 1-hour arithmetic average.

(h)(6)(ii) Each nitrogen oxides 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.

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

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

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

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

(h)(10)(i) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 2 of appendix B of this part, nitrogen oxides and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (h)(10)(i)(A) and (h)(10)(i)(B) of this section.

(h)(10)(i)(A) For **nitrogen oxides**, EPA Reference Method 7, 7A, 7C, 7D, or 7E shall be used.

(h)(10)(i)(B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC–19–10–1981—part10, as applicable, shall be used.

(h)(10)(ii) The span value of the continuous emission monitoring system shall be 125 percent of the maximum estimated hourly potential nitrogen oxide emissions of the municipal waste combustor unit.

(h)(11) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 1 in appendix F of this part.

(h)(12) When nitrogen oxides continuous emission data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved by EPA or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 90 percent of the hours per calendar quarter and 95 percent of the hours per calendar year the unit is operated and combusting municipal solid waste.

Record Keeping and Report Requirements:

A person who owns an existing MWC subject to this regulation shall report and maintain records in accordance with 40 CFR §60.59b of Subpart Eb, as applicable, except for the siting requirements under §60.59b(a), (b)(5), and (d)(11) of 40 CFR Part 60, Subpart Eb; [**Authority**: COMAR 26.11.08.08C(1)]

Continuous emissions monitoring data reduction and data availability shall be as prescribed in COMAR 26.11.01.10, COMAR 26.11.01.11. If there is any inconsistency between COMAR 26.11.01.10, COMAR 26.11.01.11 and 40 CFR 60, the requirement of 40 CFR 60 govern. [**Authority**: COMAR 26.11.08.08C(2)]

Reporting and record keeping requirements found in 40 CFR §60.59b which are incorporated by reference include the following:

§60.59b(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).

Note: Since MCRRF is subject to Title V, MCRRF is required to submit semiannual reports according to the same schedule as the semiannual reports required under §60.59b(h)

(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)(ii) A list of the highest emission level recorded for sulfur dioxide, **nitrogen oxides**, carbon monoxide, ... based on the data recorded under paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(E) of this section.

.59b(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)(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)(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)(2)(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)(2)(ii)(B) All 24-hour daily arithmetic average nitrogen oxides emission concentrations as specified under §60.58b(h).

(d)(2)(ii)(C) All 4-hour block or 24-hour daily arithmetic average carbon monoxide emission concentrations, as applicable, as specified under §60.58b(i).

Note: (d)(2)(ii)(D) through (d)(2)(ii)(F) do not apply here.

(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 ...., municipal waste combustor unit load were not obtained based on the data recorded under paragraph (d)(6) of this section.

(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

(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.

(d)(7) Identification of each occurrence that sulfur dioxide emissions data, **nitrogen oxides** emissions data, ... 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.

(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.

§60.59b(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, …., municipal waste combustor unit load level, particulate matter control device inlet temperature, and opacity.

(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)(2)(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)(2)(ii)(B) All 24-hour daily arithmetic average **nitrogen oxides** emission concentrations as specified under §60.58b(h).

(d)(2)(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)(2)(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).

(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)(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.

§60.59b(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 on§60.59b site as a paper copy for a period of 5 years.

§60.59b(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.

Compliance Demonstration for PSD mass limits during periods of SSM

The 24 hour PSD concentration limit (ppmv) have been converted into equivalent mass emission limits. The calculation was based on the same volumetric loading and O_2 percent as stated in the PSD approval extension (i.e., 72,963 dscfm and 8.1% O_2). The Permittee shall use flue gas flow meters and DAS for the continuous emission rate monitoring system (CERMS) installed for measuring CO_2 in order to convert concentrations in ppmv into mass concentrations in lbs. per hour during periods of SSM for the purpose of demonstrating compliance with the PSD Approval NOx limit. The Permittee is required to have a continuous emission rate monitoring system (CERMS) for measuring CO_2 in accordance with 40 CFR part 98, subpart C (large MWC are required to do Tier 4 CO_2 monitoring). Additionally, 40 CFR part 98, subpart C, specifies that the CERMS is subject to QA/QC procedures in 40 CFR 60, appendix B, Performance Specification 6 and 40 CFR 60, Appendix F.

The Permittee must maintain records of the emissions data collected by the (Continuous Emission Rate Monitoring System) CERMS during periods of SSM and submit records of the mass emissions of NOx during periods of SSM to the Department upon request. [**Authority**: COMAR 26.11.03.06C(3)]

Compliance Status discussion:

The Permittee installed a CEM system for nitrogen oxides that meets the PS specification of 40 CFR Part 60 Appendix B, continues to operate the NOx CEMS and performs QA/QC procedures as required, maintains all records as required, and submits all reports as required. The Permittee has demonstrated continuous compliance with all the NOx emission standards.

Carbon Monoxide (CO) Emission Standards

A. PSD Approval (2-14-1992, amended 6-18-2013)
200 ppmv - corrected to 7% O_2 (dry basis) - 1 hr. average
100 ppmv - corrected to 7% O_2 (dry basis) - 4 hr. block average
50 ppmv - corrected to 7% O_2 (dry basis) - 24 hr. block average

These standards apply at all times except during periods of startup, shutdown, or malfunction (SSM) when the following alternative equivalent standards apply to Emission Units 1-3 combined:

176 lb/hr (timed 1-hr average commencing with the SSM event)
87.9 lb/hr (timed 4-hr average commencing with the SSM event)
44.0 lb/hr (timed 24-hr average commencing with the SSM event)

B. NSPS subpart Ea - 40 CFR §60.56a
100 ppmv - corrected to 7 percent oxygen (dry basis)-4 hr. block arithmetic avg.

C. 111(d) Plan-COMAR 26.11.08.08A(2)
100 ppmv - corrected to 7 percent oxygen, 4 hr. block arithmetic average.

Performance and Compliance Test Requirements:

CEMS. Methods and procedures as specified in 40 CFR 60.58b(b) and 40 CFR 60.58b(i). [**Authority**: 111(d) plan-COMAR 26.11.08.08A(2)]

Compliance Exceptions:

The standards in §A(2) of this regulation apply at all times except during periods of startup, shutdown, or malfunction as provided in 40 CFR §60.58b(a). [**Authority**: 111(d) plan-COMAR 26.11.08.08A(3)]

§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).

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

(ii) Continuous burning is the continuous, semi continuous, or batch feeding of municipal solid waste for purposes of waste disposal, energy production, or providing heat to the combustion system in preparation for waste disposal or energy production.

The use of municipal solid waste solely to provide thermal protection of the grate or hearth during the startup period when municipal solid waste is not being fed to the grate is not considered to be continuous burning.

(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).

Note: 60.58b(a)(2) does not apply to this facility-not an air curtain incinerator.

Compliance Demonstration:
A continuous emissions monitor system as required by the 111(d) plan-COMAR 26.11.08.08A(2) is used to collect data in order to demonstrate continuous compliance with all of CO emissions standards.

Monitoring Requirements:

The Permittee shall install, calibrate, operate, and maintain continuous emission monitors for carbon monoxide and oxygen. The monitors shall be located at the combustor outlet exit to measure concentrations of carbon monoxide. [**Authority**: 111(d) plan-COMAR 26.11.08.08B(1) and (2)]

The monitors required by §B(1)(a) and (b) of this regulation shall meet the installation, certification, reporting, record-keeping, and other requirements of COMAR 26.11.01.10, performance specifications in 40 CFR Part 60, Appendix B, the quality assurance procedures in 40 CFR Part 60, Appendix F, all requirements in 40 CFR §60.58b, and COMAR 26.11.01.11C. [**Authority**: 111(d) plan-COMAR 26.11.08.08B(3)]

"All requirements in 40 CFR §60.58b" that are incorporated by reference include the following:

§60.58b(a) The provisions for startup, shutdown, and malfunction are provided in paragraphs (a)(1) and (a)(2) of this section. See "Compliance Exceptions" above

§60.58b(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, ... 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.

(b)(1) The span value of the oxygen (or 20 percent carbon dioxide) monitor shall be 25 percent oxygen (or 20 percent carbon dioxide).

(b)(2) The monitor shall be installed, evaluated, and operated in accordance with §60.13 of subpart A of this part.

(b)(3) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under §60.8 of subpart A of this part.

(b)(4) The monitor shall conform to Performance Specification 3 in appendix B of this part except for section 2.3 (relative accuracy requirement).

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

Note: 60.58b(b)(6) – (b)(7) address use of CO_2 monitors in lieu of O_2 as diluent monitors and do not apply to MCRRF. §60.58b(b)(8) applies to NOx and SO_2 emissions.

§60.58b(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)(3)(i) The continuous emission monitoring system shall be operated according to Performance Specification 4A in appendix B of this part.

(i)(3)(ii) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 4A in appendix B of this part, carbon monoxide and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (i)(3)(ii)(A) and (i)(3)(ii)(B) of this section. For affected facilities subject to the 100 parts per million dry volume carbon monoxide standard, the relative accuracy criterion of 5 parts per million dry volume is calculated as the absolute value of the mean difference between the reference method and continuous emission monitoring systems.

(i)(3)(ii)(A) For carbon monoxide, EPA Reference Method 10, 10A, or 10B shall be used.

(i)(3)(ii)(B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, or ASME PTC–19–10–1981—part10 (incorporated by reference, see §60.17 of subpart A of this part), as applicable, shall be used.

(i)(3)(iii) The span value of the continuous emission monitoring system shall be 125 percent of the maximum estimated hourly potential carbon monoxide emissions of the municipal waste combustor unit.

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

Record Keeping and Report Requirements:

A person who owns an existing MWC subject to this regulation shall report and maintain records in accordance with 40 CFR §60.59b of Subpart Eb, as applicable, except for the siting requirements under §60.59b(a), (b)(5), and (d)(11) of 40 CFR Part 60, Subpart Eb; [**Authority**: COMAR 26.11.08.08C(1)]

Continuous emissions monitoring data reduction and data availability shall be as prescribed in COMAR 26.11.01.10 and COMAR 26.11.01.11. If there is any inconsistency between COMAR 26.11.01.10 and 40 CFR 60, the requirement of 40 CFR 60 govern. [**Authority**: 111(d) plan-COMAR 26.11.08.08C(2)]

Reporting and record keeping requirements found in 40 CFR §60.59b which are incorporated by reference include the following:

§60.59b(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).

Note: Since MCRRF is subject to Title V, MCRRF is required to submit semiannual reports according to the same schedule as the semiannual reports required under §60.59b(h).

(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)(ii) A list of the highest emission level recorded for sulfur dioxide, nitrogen oxides, **carbon monoxide**, ... based on the data recorded under paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(E) of this section.

.59b(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)(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).

Note: (d)(2)(i)(E) and (d)(2)(i)(F) omitted –do not apply to this facility

(d)(2)(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)(2)(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)(2)(ii)(B) All 24-hour daily arithmetic average nitrogen oxides emission concentrations as specified under §60.58b(h).

(d)(2)(ii)(C) All 4-hour block or 24-hour daily arithmetic average **carbon monoxide emission** concentrations, as applicable, as specified under §60.58b(i).

Note: (d)(2)(ii)(D) through (d)(2)(ii)(F) does not apply here

(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 ...., municipal waste combustor unit load were not obtained based on the data recorded under paragraph (d)(6) of this section.

Note: (g)(1)(iv)(B) and (g)(1)(iv)(C) do not apply to MCRRF.

(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

(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.

(d)(7) Identification of each occurrence that sulfur dioxide emissions data, nitrogen oxides emissions data, ... 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.

(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.

§60.59b(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**, ..., municipal waste combustor unit load level, particulate matter control device inlet temperature, and opacity.

(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)(2)(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)(2)(ii)(B) All 24-hour daily arithmetic average nitrogen oxides emission concentrations as specified under §60.58b(h).

(d)(2)(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)(2)(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).

Note: (d)(2)(ii)(E) and (d)(2)(ii)(F) do not apply to this facility.

(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)(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.

§60.59b(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 on§60.59b site as a paper copy for a period of 5 years.

§60.59b(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.

Compliance Demonstration for PSD mass limits during periods of SSM

The 1-hour and 24 hour PSD concentration limits (ppmv) have been converted into equivalent mass emission limits. The calculation was based on the same volumetric loading and O_2 percent as stated in the PSD approval extension (i.e., 72,963 dscfm and 8.1% O_2). The Permittee shall use flue gas flow meters and DAS for the continuous emission rate monitoring system (CERMS) installed for measuring CO_2 in order to convert concentrations in ppmv into mass concentrations in lbs. per hour during periods of SSM for the purpose of demonstrating compliance with the PSD Approval CO limits. The Permittee is required to have a continuous emission rate monitoring system (CERMS) for measuring CO2 in accordance with 40 CFR part 98, subpart C (large MWC are required to do Tier 4 CO_2 monitoring). Additionally, 40 CFR part 98, subpart C, specifies that the CERMS is subject to QA/QC procedures in 40 CFR 60, appendix B, Performance Specification 6 and 40 CFR 60, Appendix F.

The Permittee must maintain records of the emissions data collected by the CERMS during periods of SSM and submit records of the CO of mass emissions during periods of SSM to the Department upon request. [**Authority**: COMAR 26.11.03.06C(3)]

Compliance Status discussion:

The Permittee installed a CEM system for carbon monoxide that meets the PS specification of 40 CFR Part 60 Appendix B, continues to operate the CO CEMS and performs QA/QC procedures as required, maintains all records as required, and submits all reports as required. The Permittee has demonstrated continuous compliance with all the CO emission standards.

Hydrogen Chloride (HCl)

A. 25 ppmv on a 1-hr avg. corrected to 7% O2 (dry gas) or at least 95% removal efficiency whichever is less restrictive. [**Authority**: PSD Approval (2-14-92, amended 6-18-2013)]

B. 25 ppmv corrected to 7 percent oxygen (dry basis) or at least 95 percent removal efficiency whichever is less restrictive. [**Authority**: Subpart Ea §60.54a(d)]

D. 29 ppmv adjusted to 7%oxygen (dry basis) or 95 percent reduction whichever is less restrictive. [**Authority**: 111(d) plan-COMAR 26.11.08.08A(2)]

Performance/Compliance Test Requirement:

EPA Reference Method 26. Annual test except as provided in 40 CFR §60.58b(f). Applicable test procedures and methods as provided in 40 CFR §60.58b(f). [**Authority**: 111(d) plan-COMAR 26.11.08.08A(2)]

The following table shows the results of compliance stack tests for the past 5 years.

Calendar Year of Test	Unit 1	Unit 2	Unit 3	Emission Standard[1]
2020	13.7	14.3	18.4	25 ppmv or 95% reduction
2019	17.0	18.2	8.77	25 ppmv or 95% reduction
2018	9.63	7.90	10.4	25 ppmv or 95% reduction
2017	8.63	15.3	15.0	25 ppmv or 95% reduction
2016	14.6	18.7	20.9	25 ppmv or 95% reduction

[1]Corrected to 7% Oxygen

Compliance Status:

The Permittee has conducted annual HCl emission stack tests and submitted results as required since the initial operation of the units. The test results have always demonstrated compliance with the specified HCl emission standard since the facility began operations in 1995.

HCl Compliance Demonstration Discussion

The MCRRF utilizes two independent pollution control systems to control HCl emissions discharged through the stack. As a primary control measure, each MWC unit has a semi-dry scrubber which uses a lime slurry to mitigate acid gas emissions on an as needed basis. The lime slurry flow rate can vary from zero to approximately 50 gallons per minute, depending on the combustion unit. The secondary control system includes a furnace dry lime injection system (FDLIS) that is capable of feeding hydrated lime directly into the combustion zone for immediate acid gas control. The dry lime injection rate can vary from zero to approximately 1,000 lbs/hr., depending on the combustion unit.

The Permittee also operates a CEM system for HCl. The requirement to have an HCl CEMS stems from a Permit to Construct condition, not the NSPS or the Emission Guidelines (EG) regulations. Permit to Construct 15-1718-2-0132 N Part F- Reporting and Recordkeeping condition 6 states "Hydrogen chloride data will be used by ARMA for information purposes only until certification procedures are approved by the Department." Because EPA had not established certification and QC/QA procedures for HCl CEMS, the data from the HCl CEMS has not been used for direct compliance purposes but rather for informational purposes only. However, the data does provide an indication as to whether or not

additional monitoring and testing may be needed to make a compliance determination. To ensure the quality of the CEMS data, certain essential quality assurance procedures currently in use by the Permittee will be formalized as a requirement in the Title V permit.

The Permittee has also agreed to implement an "HCl Control Plan" approved by MDE-ARA. This plan will outline the specific steps to be undertaken to ensure that the MWC units are in continuous compliance with the prescribed HCl standard. Specifically, the plan will require the Permittee to continuously monitor HCl emissions and take the appropriate corrective actions if monitored HCl concentrations should exceed a pre-determined "trigger" limit. Among the prescribed actions are increasing the hydrated lime injection levels into the furnace. If MWC operators do not observe an adequate decline in HCl concentrations monitored at the stack, the operators will implement the next 'action level' specified in the HCl Control Plan, which includes increasing the lime slurry flow rate into the scrubber. The HCl Control Plan will require the Permittee to document the corrective actions taken to demonstrate compliance with the HCl limit prescribed in the Title V permit. With MDE-ARA approval, the HCl Control Plan may be amended, as needed, to include additional corrective actions that will aid in ensuring continuous compliance with the HCl standard. Implementation of the HCl Control Plan will continue until the Permittee installs and operates certified HCl CEMS as discussed further below.

Compliance Demonstration for Percent Reduction Limit: SO2 and HCl

In 1996, the Permittee completed a test program in order to determine the effectiveness of acid gas (HCl and SO2) emission reductions when injecting dry lime directly into the furnace. These reductions are not recorded as such by the facility CEMS due to the fact that the point of injection is located prior to the inlet CEMS. Reductions in acid gas emissions using the dry lime system are greater than that measured for compliance using the removal efficiency (percent removal between the inlet and outlet CEMS) standards. Validation testing for dry lime injection will be completed during the 2022 calendar year.

In demonstrating a 95 percent reduction of HCl emissions or an 85 percent reduction of SO_2 emissions, whenever the furnace dry lime injection system (FDLIS) is operating, the Permittee may receive credit for a demonstrated emissions reduction taking place prior to the inlet CEMS (or inlet stack test ports) for HCl or SO_2 resulting from direct injection of lime into the boiler, as follows:

$$\%R = 100 - (100 - \%Z)*C_{outlet}/C_{inlet}$$

%R - percent reduction of emissions of HCl or SO_2
%Z - demonstrated percent reduction prior to inlet CEMS
C_{inlet} - dry inlet concentration in ppmv adjusted to 7% O_2
C_{outlet} - dry outlet concentration in ppmv adjusted to 7% O_2

Prior to using this credit, the Permittee shall receive written approval from the Department upon submitting satisfactory test data demonstrating such a reduction.

The Department accepted MCRRF request that a credit towards HCl and SO_2 reductions from the usage of hydrated lime injected directly into the boiler be included in the permit conditions. The percent reduction %R is normally calculated as follows:

$$\%R = (1 - C_{outlet}/C_{inlet}) *100$$

Where C_{outlet} is the concentration at the stack (after all control devices) and C_{inlet} is the concentration prior to the control device for SO_2 or HCl. Currently hydrated dry lime is introduced into the boiler prior in the emissions train to the inlet stack test ports or the inlet CEMS, which are located at the economizer. MCRRF determined by emissions testing done in 1996 that the measured inlet concentration C_{inlet} is reduced by a minimum of 35% in the case of HCl and 50% in the case of SO_2, even when the lime injection was operating at 20% of the design maximum lime feed rate, which is the minimum feed rate. Therefore, to calculate the actual emissions reduction, one should use a corrected inlet concentration C^1 instead:

$$\%R = (1 - C_{outlet}/C^1)*100$$

Where the relationship

$$C_{inlet} = C^1 *(1- \%Z/100)$$

C^1 is the concentration that would obtain if there were no lime injection and %Z is the minimum percent reduction of the inlet concentration determined by emission testing for HCl and SO_2. Therefore, to obtain the actual emissions reduction from the measured inlet/outlet concentrations, one should use the following:

$$\%R = 100 - (100 - \%Z)*C_{outlet}/C_{inlet}$$

which will apply whenever the lime feeder is in operation.

HCl Compliance Status Discussion:

Although not directly applicable, the existing non-certified inlet and outlet HCl analyzers are maintained in general conformity with Procedure 6, Quality Assurance Requirement for Gaseous Hydrogen Chloride (HCl) Continuous Emissions Monitoring Systems Used for Compliance Determination at Stationary Sources, 40CFR Appendix F to part 60 - Quality Assurance Procedures. The Permittee will perform quarterly cylinder gas audits (CGAs), daily calibrations, and track all down time and maintenance in CEMS log. Documentation of these actions will be included in quarterly reports submitted to MDE-ARA.

The following table shows the results of recent compliance tests for the HCl reductions

	Unit 1	Unit 2	Unit 3
2020	97.7	97.1	97.4
2019	97.6	95.5	98.3
2018	98.7	98.3	98.4
2017	98.7	97.3	97.4
2016	98.2	96.4	96.2

Note: HCl standard is 25 ppmv OR 95% overall removal efficiency

Challenge to the Adequacy of HCl Compliance Demonstration

In a letter dated September 4, 2020 to the U.S.EPA, the Environmental Integrity Project and the Chesapeake Climate Action Network (Petitioners) submitted a "Notice of Intent to Sue (NIS) for Failure to Timely Grant or Deny a Petition to Object to the Title V Operating Permit" for the Montgomery County Resource Recovery Facility (MCRRF). The Petitioners filing was based on the submissions of timely comments on the draft renewal Title V permit for the MCRRF.

More specifically, the Petitioners expressed concern that the Title V permit did not require sufficient monitoring to assure continuous compliance with the PSD emission limit for HCl. In particular, the Petitioners claimed that if annual stack testing represented the sole means for establishing compliance with a short term HCl emission limit, then it should be deemed as insufficient. Furthermore, the Petitioners outlined the following approach for correcting the monitoring deficiency currently in the Title V permit:

> *"The use of HCl CEMS data as an indicator may not be considered in evaluating whether the Permit includes monitoring sufficient to assure compliance with the PSD HCl limit unless the Permit is revised to require*

the referenced monitoring approach. ..... In other words, NMWDA must be required under the conditions of the Permit to use the HCl CEMS as an indicator or surrogate for continuous compliance and to establish more specific parameters for when corrective action must be taken based on measured HCl levels. Under such an approach, MDE would have to establish a threshold for HCl CEMS data on a 1-hour basis. Any exceedance of this threshold would constitute a deviation requiring corrective action, and deviations and resulting corrective actions would have to be reported."

MDE-ARA and EPA have re-evaluated the Petitioners position as outlined in their filing and we both concluded that the technical rationale for their argument was legitimate. Furthermore, MDE-ARA is also in agreement with the Petitioners suggestion that use of the existing non-certified HCl CEMs should include appropriate parametric thresholds and corrective measures to ensure compliance with the HCl emission limit as an interim solution until the installation and operation of certified HCl CEMS.

As an interim solution, MDE-ARA has engaged in extensive discussions with EPA and the facility operators to develop parametric thresholds and appropriate corrective measures to be taken in the event of emission deviations. Those measures are enumerated below.

Actions Taken: MDE-ARA has endeavored to work directly with the Permittee and Covanta Montgomery, Inc who has operational responsibility for the facility. As part of our interactions, MDE-ARA made a litany of data requests to the MCRRF team, including numerous requests made by the EPA team. All of the submissions made by the MCRRF team were forwarded to EPA for review. Based on the information provided, MDE-ARA took the lead in coordinating the development an HCl Control Plan for the facility that would be designed to ensure continuous compliance with the prescribed PSD emission limit. Essentially, the HCl Control Plan adopts the Petitioners suggested remedy as follows:

1. Add a new Title V condition requiring MCRRF to use the existing HCl CEM as an indicator for determining compliance with the prescribed short-term emission limit.
2. Establish parametric thresholds for when a prescribed Corrective Action Level must take place. (Note: the parametric threshold is more restrictive than the allowed emission limit.)
3. Require MCRRF to initiate a sequence of Corrective Action Levels once the threshold level is breached.
4. Include additional recordkeeping and reporting requirements to document the Corrective Actions taken.

As a long-term measure, the Permittee has agreed to install and operate certified HCl CEMS on the inlet and outlet of all three MWC units for the purpose of determining compliance with the short term 1-hour HCl emission limit. To this end, on July 26, 2021, the Permittee amended its Service Agreement with Covanta to take responsibility for the operation and maintenance for the planned installation of the certified HCl analyzers. Finally, on August 5, 2021, Covanta confirmed a purchase order with a CEM vender for the installation of HCl analyzers on the inlet and outlet of each MWC unit. It is anticipated that the equipment will be installed, operational and certified by the end of June 2022.

MDE-ARA considers the installation of certified HCl CEMS to be a minor permit modification as defined in COMAR 26.11.03.16. because the new system is not relaxing any reporting or recordkeeping requirements, but rather enhancing them. Additionally, simply moving from an uncertified to a certified monitoring system should not be considered a significant change, since again, significant changes seem to involve drastically changing and/or relaxing, rather than enhancing requirements. Furthermore, under Maryland regulations, for a permit modification to be considered "minor" it cannot "significantly revise existing federally enforceable monitoring, including test methods, reporting, record keeping, or compliance certification requirements except by (a) adding new requirements, (b) eliminating the requirements if they are rendered meaningless because the only emissions to which the requirements apply no longer occur, or (c) changing from one approved test method for a pollutant and source category to another." COMAR 26.11.03.16(B). It is noted that the installation of the certified HCl CEMS would add new requirements, and essentially move from one test method to another. Therefore, not only is this change not "significant," as discussed above, but it would also meet two of the exceptions to significant revisions in COMAR. Based on these factors, MDE-ARA is satisfied that the installation of an enhanced monitoring system with additional regulatory requirements applicable to certified CEMS satisfies the criteria for designating the change as a minor permit modification.

Dioxins/Furans

30 ng/dscm (total mass) corrected to 7% O_2 (dry gas)
[**Authority:** PSD Approval (2-14-1992, amended 6-18-2013); 40 CFR 60.53a and 111(d) plan-COMAR 26.11.08.08A(2)- All three limits are the same].

Performance/Compliance Test Requirement:

EPA Reference Method 23. Annual test except as provided in 40 CFR 60.58b(g) (5) (iii). Applicable test procedures and methods as specified in 40 CFR 60.58b(g). [**Authority**: 111(d) plan-COMAR 26.11.08.08A(2)]

The following table shows the results of compliance stack tests for the past 5 years:

Calendar year of Test	Unit 1	Unit 2	Unit 3	Emissions Standard[1]
2020	1.45	1.10	2.60	30 ng/dscm
2019	2.44	0.992	1.61	30 ng/dscm
2018	0.60	0.50	0.27	30 ng/dscm
2017	1.28	0.366	2.60	30 ng/dscm
2016	1.80	6.86	1.50	30 ng/dscm
2015	1.26	1.28	4.44	30 ng/dscm
2014	0.501	0.649	0.650	30 ng/dscm
2013	2.63	1.33	1.47	30 ng/dscm

[1]Corrected to 7% Oxygen

Compliance Demonstration:

The emission standard for dioxins/furans is the same for the PSD approval, Subpart Ea, and the 111(d) plan as codified in COMAR 26.11.08.08A(2). The same compliance demonstration will be used for all three. COMAR 26.11.08.08A(2) requires an annual compliance stack test in accordance with EPA Reference Method 23. In addition to the stack test, the Department will assess compliance with dioxins/furans by assessing compliance with surrogate operating limits which are required by COMAR 26.11.08.08A(2),the 111(d) emissions guidelines requirements, that were established to assure compliance with the dioxins/furans emission standard. These surrogates include a limit on the inlet temperature to the particulate control device, a limit on the maximum load to the incinerator units, and a minimum activated carbon feed rate.

To determine compliance with the maximum inlet temperature to the particulate matter control device requirements under §60.53b(c), the Permittee must 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 (baghouse). Temperature shall be calculated in 4-hour block arithmetic averages.

Research on the performance of MWC's has shown that maintaining low flue gas temperature has the dual effect of improving reagent (lime) utilization and increases removal of volatile trace elements, such as mercury and dioxin/furans, as well as acid gas emissions (HCl and SO_2). Maintaining particulate matter control device inlet temperature near the level established during annual dioxin testing ensure that temperatures are maintained well below the temperature where post furnace formation of dioxins/furans on fly ash collected in the particulate matter control device can occur.

The maximum demonstrated municipal waste combustor unit load is determined during the initial performance tests for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in 40 CFR §60.33b(c)(1) is achieved. The maximum demonstrated municipal waste combustor unit load is 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. The facility is required to continuously monitor 4 hr. block arithmetic average steam load. The applicable test procedures and methods are as provided in 40 CFR §60.58b(i)(6) and (8). The load is limited not to exceed 110 percent of maximum load during most recent dioxin/furan performance test.

An average carbon mass feed rate in kilograms per hour or pounds per hour must be estimated during the initial performance tests for dioxin/furan emissions and each subsequent performance test for dioxin/furan emissions. During operation of the incinerators, the carbon injection system operating parameter(s) that are the primary indicator(s) of the carbon mass feed rate must be averaged over an 8-hour block period and the 8-hour block average must exceed or equal the level(s) documented during the performance tests specified under 40 CFR §§60.58b(m)(1)(i) & (ii) except as specified in §§(m)(2)(i) and §§(m)(2)(ii).

The Permittee must maintain records in accordance with 40 CFR §60.59(b) of Subpart Eb, as applicable, except for the siting requirements under §§60.59b(a), (b)(5), and (d)(11) of 40 CFR part 60 subpart Eb. [**Authority**: 111(d) plan-COMAR 26.11.08.08C(1)]

Incorporated by reference is 40 CFR §60.59(b) of Subpart Eb which states:

"(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)."

Note: the facility on a weekly basis verifies calibration of the screw feeder by collecting and weighing a sample of activated carbon over a timed interval.

Compliance Status:

The Permittee has conducted annual tests and submitted results as required since initial operation. The results have always shown compliance with the dioxin/furans emission standard. The Permittee has complied with all of the operational parameters including the maximum inlet temperature to the PM control device, the maximum unit load, and the minimum activated carbon injection rate. The Permittee has complied with all of the associated monitoring, record keeping and reporting requirements for the operating parameters.

Cadmium (Cd)

35 µg/dscm adjusted to 7% O_2 (dry gas) [**Authority:** 111(d) plan-COMAR 26.11.08.08A(2)]

Performance and Compliance Test Requirements
EPA Reference Method 29. Annual test except as provided in 40 CFR §60.58b(d). Applicable test procedures and methods as specified in 40 CFR 60. §58b(d). [**Authority**: 111(d) plan-COMAR 26.11.08.08A(2)]

The following table shows the results of compliance stack tests for the past 5 years.

Calendar year of Test	Unit 1	Unit 2	Unit 3	Emissions Standard[1]
2020	0.488	0.362	0.224	35 µg/dscm
2019	0.385	0.751	1.080	35 µg/dscm
2018	0.354	0.299	0.286	35 µg/dscm
2017	0.517	0.216	0.703	35 µg/dscm
2016	2.54	0.158	0.155	35 µg/dscm

[1]Corrected to 7% Oxygen

Compliance Demonstration strategy for Lead, Beryllium, and Cadmium.

Lead, beryllium, and cadmium are all particulate matter. The same monitoring strategy that is used to demonstrate compliance will be used for Pb, Be, and Cd. This strategy includes annual stack tests, analysis of data from Continuous Opacity Monitoring system (COMS), continuous monitoring the furnace roof temperature in order to maintain the temperature at or above 1089 °F, and continuous monitoring of the waste feed rate for each of the combustion units.

The Permittee must conduct annual stack tests meeting the requirements of COMAR 26.11.08.08A(2) which incorporates by reference the requirements of §58b(c)

Opacity is a surrogate for PM emissions. The Permittee is required to operate and maintain a COMS. The opacity standard has been established at a limit which assures compliance with the PM standard. High opacity readings may indicate that the particulate control systems are not performing properly. The Department will analyze the opacity data to determine whether or not stack tests in addition to the annual stack test are warranted to demonstrate continuous compliance with the Pb, Be, and Cd limits.

The Permittee must continuously monitor the furnace roof temperature in order to maintain the temperature at or above 1089 °F. [**Authority**: Permit to Construct #15-1718-2-0132N, Part B(3)] The roof temperature relates to combustion chamber temperatures which are an indication of good combustion. Poor combustion can cause greater particulate loading of the particulate control system which may lead to higher PM emissions.

The Permittee must continuously monitor the load level of each municipal waste combustion unit to demonstrate that that the units are not operating at a load higher than during the annual compliance stack tests or that waste combustion units are not overloaded which could cause higher PM emission rates. The maximum demonstrated municipal waste combustor unit load was determined during the initial performance test for dioxins/furans and shall

continue to be determined during each subsequent performance test for which compliance with the dioxin/furan emission limit is demonstrated. The maximum demonstrated municipal unit load shall be the highest 4-hour arithmetic average load 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 conducted on only one MWC unit at the MWC plant, as provided in §60.58b(g)(5)(iii), the Permittee may elect to apply the same MWC unit load from the tested MWC unit to the other MWC units. [**Authority**: COMAR 26.11.08.08A(2) which incorporates by reference §60.58b (i)(8)]

The Permittee must not operate a municipal waste combustion unit at loads greater than 110 percent of the maximum demonstrated load (4-hour block average) for that municipal waste combustion unit. [**Authority**: 111(d) plan-COMAR 26.11.08.08A(2) which incorporates by reference §60.53b(b)]

The Permittee must keep of records of the particulate matter stack tests and the relevant continuously monitored parameters. The Permittee must keep all records onsite in paper copy or electronic format unless the Department or the EPA Administrator approves another format. The Permittee must keep all records on each municipal waste combustion unit for at least 5 years and make the records available for submittal to the EPA Administrator, the Department, or for onsite review by an inspector. [**Authority**: 111(d) plan-COMAR 26.11.08.08C which incorporates by reference §60.59b(d)]

The Permittee must submit reports in accordance with §60.59b of Subpart Eb, as applicable, except for the siting requirements under §60.59b(a), (b)(5), and (d)(11) of 40 CFR Part 60, Subpart Eb. [**Authority**: 111(d) plan-COMAR 26.11.08.08C]

As evidenced in the stack test results for the past 5 years, there is a large margin of compliance. The proposed monitoring strategy is sufficient.

Compliance Status discussion for lead, beryllium, and cadmium:

The results of every stack test since initial operation of the incinerator units have demonstrated compliance with the emission standards for all the metals. Data collected from the COMS has not shown periods of time when there may be a possibility of excess PM and metal emissions. Records of data collected on the roof temperatures and the waste feed rates have shown continuous compliance with the operational limits.

Lead (Pb)

A. PSD Approval (2-14-92, amended 6-18-2013)
2.5 mg/dscm adjusted to 12% CO_2 (dry gas)

B. 111(d) plan-COMAR 26.11.08.08A(2)
400 µg/dscm adjusted to 7% O_2 (dry gas)

Note: There is no emissions limit specifically for lead (Pb) in NSPS subpart Ea. The particulate matter emission limit in subpart Ea was set at a level to address control of metals such as Pb.

Streamlining of emissions limits. At dry conditions, emissions corrected to 12 percent carbon dioxide are equivalent to emissions corrected to 7 percent oxygen. Continuous compliance with 111(d), the 400 µg/dscm (0.40 mg/dscm) corrected to 7% oxygen emissions limit will assure compliance with the PSD limit of 2.5 mg/dscm adjusted to 12% CO_2 (dry gas)

Performance and Compliance Test Requirements:
EPA Reference Method 29. Annual test except as provided in 40 CFR §60.58b(d). Applicable test procedures and methods as specified in 40 CFR §60.58b(d). [**Authority**: 111(d) plan-COMAR 26.11.08.08A(2)]

The following table shows the results of compliance stack tests for the past 5 years.

Calendar year of Test	Unit 1	Unit 2	Unit 3	Emissions Standard[1]
2020	4.69	4.05	30.9	400 µg/dscm
2019	4.44	10.9	18.6	400 µg/dscm
2018	5.42	4.08	4.27	400 µg/dscm
2017	7.32	2.51	11.0	400 µg/dscm
2016	42.2	1.50	2.53	400 µg/dscm

[1]Corrected to 7% Oxygen

A discussion of the monitoring sufficiency is provided after Cadmium Emissions standard. Lead, Beryllium, and Cadmium emissions are all particulate matter and share the same strategy.

Mercury (Hg)

A. 3.4 mg/dscm corrected to 12% CO_2 (dry basis) [**Authority**: PSD Approval (2-14-92, amended 6-18-2013)]

B. 50 µg/dscm at 7 percent O_2 or 85% reduction by weight applies if less restrictive than the above. [**Authority**: 111(d) plan-COMAR 26.11.08.08A(2)]

Note: There is no emissions limit specifically for mercury (Hg) in NSPS subpart Ea. The particulate matter emission limit in subpart Ea was set at a level to address control of metals such as Hg.

Performance/Compliance Test Requirement:

EPA Reference Method 29. Annual test except as provided in 40 CFR 60.58b(d) and (m). Applicable test procedures and methods as specified in 40 CFR 60.58b(d). [**Authority**: 111(d) plan-COMAR 26.11.08.08A(2)]

Note: the 111(d) plan (COMAR 26.11.08.08A(2) limit is significantly more stringent than the PSD limit. 4mg/dscm is equal to 4000 µg/dscm, or when the concentration is corrected, also on a dry basis, to 7%O_2, approximately 4200 ug/dscm. The compliance demonstration for the 111(d) plan-COMAR 26.11.08.08A(2), will be used to demonstrate compliance with the PSD emission standard.

The following table shows the results of compliance stack tests for the past 5 years.

Calendar year of Test	Unit 1	Unit 2	Unit 3	Emissions Standard[1]
2020	1.69	4.13	2.18	50 µg/dscm or 85% reduction
2019	6.02	6.71	2.29	50 µg/dscm or 85% reduction
2018	2.75	2.94	3.86	50 µg/dscm or 85% reduction
2017	1.74	3.75	2.98	50 µg/dscm or 85% reduction
2016	10.3	11.5	11.9	50 µg/dscm or 85% reduction

[1]Corrected to 7% Oxygen

Compliance Demonstration Discussion

COMAR 26.11.08.08A(2) requires an annual compliance stack test in accordance with EPA Reference Method 23. In addition to the stack test, the Department will assess compliance with mercury by assessing compliance with surrogate operating limits that are required by COMAR 26.11.08.08A(2),the 111(d) emissions guidelines requirements, that were established to assure compliance with the dioxins/furans emission standard. These surrogates that affect mercury emissions as well as dioxins/furans include a limit on the inlet temperature to the particulate control device and a minimum activated carbon injection rate.

See the discussion of the monitoring requirements for inlet temperature to the PM control device below and the minimum activated carbon injection provided previously for dioxins/furans.

Compliance Status:

The Permittee has conducted annual tests and submitted results as required since initial operation. The results have always shown compliance with the mercury emission standards. The Permittee has complied with all the associated monitoring, record keeping and reporting requirements for the operational parameters of maximum inlet temperature to the PM control device and minimum activated carbon injection rate.

MWC Load

Not to exceed 110 percent of maximum load during most recent dioxin/furan performance test. [**Authority**: 111(d) plan-COMAR 26.11.08.08A(2)]

Compliance Demonstration:
The maximum demonstrated municipal waste combustor unit load shall be determined during the initial performance test (completed!) for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in Table A is achieved. [**Authority**: 11(d) plan-COMAR 26.11.08.08A(2) Ref: §60.58b (i)(8)] The Permittee shall install, calibrate, maintain, and operate a steam flow meter measuring steam flow in kilograms per hour (or pounds per hour) on a continuous basis and record the output of the monitor. [**Authority**: 111(d) plan-COMAR 26.11.08.08B(3) Ref §60.58b(i)(6)(ii)] The Permittee must use continuous monitoring procedures - Continuous monitoring – 4 hr. block arithmetic average steam load. Applicable test procedures and methods as provided in 40 CFR 60.58b(i)(6). [**Authority**: 111(d) plan-COMAR 26.11.08.08A(2)]

Temperature

The maximum particulate matter control device inlet temperature must not exceed by more than 17 degrees Celsius the temperature during the most recent dioxin/furan test. [**Authority**: 40CFR 60.56a(c); 111(d) plan-COMAR 26.11.08.08A(2)]

Compliance Demonstration:
The maximum demonstrated MWC particulate matter control device temperature shall be determined during the initial performance test (completed!) for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limits specified in Table A is achieved. The maximum demonstrated MWC 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. [**Authority**: 111(d) plan-COMAR 26.11.08.08A(2) Ref: §60.58b(i)(9)] The Permittee must use continuous monitoring procedures. – The temperature shall be calculated in 4-hour block arithmetic averages Applicable test procedures and methods satisfying the requirements of 40 CFR 60.58b(i)(7). [**Authority**: 40 CFR 60.58a (h)(7) and 111(d) plan-COMAR 26.11.08.08A(2)]

Fugitive Ash Emissions

Visible emissions less than 5 percent of the observation period during ash transfer. [**Authority**: 111(d) plan-COMAR 26.11.08.08A(2)]

Compliance Demonstration:
The Permittee shall perform EPA Reference Method 22 observations as specified in 40 CFR 60.58b(k). Annual test. The emission limit excludes visible emissions discharged inside buildings or enclosures of ash conveying systems or during maintenance and repair of ash conveying systems as specified in 40 CFR 60.55b. [**Authority**: 111(d) plan-COMAR 26.11.08.08A(2)]

The following requirements of 40 CFR 60.58b(k) are incorporated by reference:

(40 CFR 60.58b(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)(1) The EPA Reference Method 22 shall be used for determining compliance with the fugitive ash emission limit under §60.55b. The minimum observation time shall be a series of three 1-hour observations. The observation period shall include times when the facility is transferring ash from the municipal waste combustor unit to the area where ash is stored or loaded into containers or trucks.

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

(k)(3) The owner or operator of an affected facility shall conduct an initial performance test for fugitive ash emissions as required under §60.8 of subpart A of this part.

(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).

Record Keeping and Reporting Requirements:
The Permittee shall report and maintain records in accordance with §60.59b of Subpart Eb, as applicable, except for the siting requirements under §60.59b(a), (b)(5), and (d)(11) of 40 CFR Part 60, Subpart Eb. [**Authority**: 111(d) plan-COMAR 26.11.08.08C]

The requirements incorporated by reference with §60.59b include the following:

§60.59b(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 ....,and fugitive ash emissions levels achieved during the performance tests recorded under paragraph (d)(9) of this section.

(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**.

§60.59b(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)(3) If the test reports recorded under paragraph (d)(9) of this section document any ...., 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.

§60.59b(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 on§60.59b site as a paper copy for a period of 5 years.

§60.59b(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.

Compliance Status discussion:
The Permittee has performed visible emissions observation as required. The results were always in compliance with the fugitive ash standard. The Permittee maintains all records as required and has submitted all report as required.

Sulfuric Acid Mist

46 mg/dscm - 3 hr. avg., adjusted to 12% carbon dioxide (dry gas). [**Authority**: PSD Approval (2-14-1992, amended 6-18-2013)]

Performance/Compliance Test Requirement:
Annual test using EPA reference Method 8 or equivalent.
Authority: COMAR 26.11.03.06C(3)-Periodic Monitoring

The following table shows the results of compliance stack tests for the past 5 years:

Calendar year of Test	Unit 1	Unit 2	Unit 3	Emissions Standard[1]
2020	0,0280	0.0210	0.0312	46 mg/dscm
2019	0.0557	0,0613	0.0624	46 mg/dscm
2018	0.0344	0.0409	0.0308	46 mg/dscm
2017	< 0.0475	< 0.0488	< 0.0434	46 mg/dscm
2016	< 0.0703	< 0.0688	< 0.0751	46 mg/dscm

[1]Corrected to 12% Carbon Dioxide

Compliance Demonstration Discussion:
In addition to the annual compliance stack test, the Department will use data collected from the SO_2 CEM assess whether or not additional testing or monitoring will be required to assure continuous compliance with the sulfuric acid mist emission standards. MCRRF utilizes an acid gas scrubber to reduce SO_2 emissions as well as sulfuric acid mist, and uses a CEMS to measure SO_2 emissions and performance of the scrubber. The scrubber system will reduce sulfuric acid mist emissions. The stack results for the past five years are at the lowest detectable test level which is significantly less than the emissions standard. With this margin of compliance, no additional monitoring is required.

Compliance Status:

The Permittee has conducted annual tests and submitted results as required since initial operation. The results have always shown compliance with the sulfuric acid mist emission standard. The SO_2 CEMS data has demonstrated continuous compliance with the SO_2 emission standard which indicates that the acid gas scrubber operates properly which provides a reasonable level of assurance that continuous compliance with fluoride emission standard is achieved.

Fluorides (total)

PSD Approval (2-14-1992, amended 6-18-2013)
7.1 mg/dscm - 3 hr. avg., adjusted to 12% carbon dioxide at standard conditions

Performance/Compliance Test Requirement:

Annual test using EPA reference Method 13B or equivalent. [**Authority**: COMAR 26.11.03.06C(3)-Periodic Monitoring]

The following table shows the results of compliance stack tests for the past 5 years:

Calendar year of Test	Unit 1	Unit 2	Unit 3	Emissions Standard[1]
2020	0.163	0.143	0.150	7.1 mg/dscm
2019	0.121	0.124	0.131	7.1 mg/dscm
2018	0.248	0.234	0.183	7.1 mg/dscm
2017	< 0.151	< 0.154	< 0.140	7.1 mg/dscm
2016	< 0.151	< 0.137	< 0.161	7.1 mg/dscm

[1]Corrected to 12% Carbon Dioxide

Compliance Demonstration Discussion:

In addition to the annual compliance stack test, the Department will use data collected from the SO_2 CEM to determine whether or not additional testing or monitoring will be required to assure continuous compliance with the fluoride emission standards. MCRRF utilizes an acid gas scrubber to reduce SO_2 emissions as well as other acid gases such as HCl and fluorides, and uses a CEMS to measure $S0_2$ emissions and performance of the scrubber. The scrubber system will also reduce fluoride emissions. The stack results for the past five years are at the lowest detectable test level which is significantly less than the emissions standard. With this margin of compliance, no additional monitoring is required.

Compliance Status:

The Permittee has conducted annual tests and submitted results as required since initial operation. The results have always shown compliance with the fluoride emission standard. The SO_2 CEMS data has demonstrated continuous compliance with the SO_2 emission standard which indicates that the acid gas scrubber operates properly which provides a reasonable level of assurance that continuous compliance with fluoride emission standard is achieved.

Beryllium

0.82 µg/dscm -3 hr. avg., adjusted to 12% carbon dioxide (dry gas). [**Authority**: PSD Approval (2-14-1992, amended 6-18-2013)]

Performance and Compliance Test Requirement:
Annual test using EPA Reference Method 29 or equivalent. [**Authority**: COMAR 26.11.03.06C(3)- Periodic Monitoring]

The following table shows the results of compliance stack tests for the past 5 years.

Calendar year of Test	Unit 1	Unit 2	Unit 3	Emissions Standard[1]
2020	< 0.0404	< 0.0384	< 0.0357	0.82 µg/dscm
2019	< 0.0389	< 0.0332	< 0.0389	0.82 µg/dscm
2018	< 0.0385	< 0.0390	< 0.0349	0.82 µg/dscm
2017	< 0.0354	< 0.0380	< 0.0373	0.82 µg/dscm
2016	< 0.0357	< 0.0400	< 0.0388	0.82 µg/dscm

[1] adjusted to 12% carbon dioxide at standard conditions

A discussion of the monitoring sufficiency is provided after Cadmium Emissions standard. Lead, Beryllium, and Cadmium emissions are all particulates and share the same strategy.

Hydrocarbons (non-methane)

PSD Approval (2-14-1992, amended 6-18-2013)
10 mg/dscm-3 hr. avg., adjusted to 12% carbon dioxide at standard conditions

Performance and Compliance Test Requirements:

The Permittee shall perform an annual test using EPA reference Method 25A or equivalent. The Permittee shall maintain a record of the results annual stack test, and submit the results of the stack test within 45 days after completion of the testing. [**Authority**: COMAR 26.11.03.06C(3) - Periodic Monitoring]

The following table shows the results of compliance stack tests for the past 5 years.

Calendar year of Test	Unit 1	Unit 2	Unit 3	Emissions Standard[1]
2020	0.108	0.0	0.827	10 mg/dscm
2019	0.233	0.079	0.280	10 mg/dscm
2018	0.407	0.246	0.685	10 mg/dscm
2017	0.565	0.648	0.498	10 mg/dscm
2016	0.555	0.597	0.691	10 mg/dscm

[1] adjusted to 12% carbon dioxide at standard conditions

Compliance Demonstration:

In addition to the annual stack test, continuous compliance with the hydrocarbon emissions standard can be assessed by data collected from the carbon monoxide (CO) CEMS and data from the continuous monitoring of the furnace roof temperature. CO is an indicator of complete combustion and hydrocarbon emissions relate to incomplete combustion. Implementation of good combustion practices to assure complete combustion is the most effective strategy in reducing hydrocarbon emissions. Good combustion control practices include proper design, construction, operation and maintenance practices for combustion grates, boilers, and air pollution controls. Low CO levels are an indicator of complete combustion and that the unit is being operated in a manner that minimizes not only CO emissions but also emissions of other pollutants such as hydrocarbons. Maintaining low CO emissions ensures complete combustion of all combustible waste and destruction of organic compounds. Good combustion practices also includes maintaining unit load or steam flow near levels established during stack testing to minimize upsets in waste (fuel) to combustion air ratios that may cause incomplete combustion. The hydrocarbon emissions standard was established based on the CO emission standard that was established for the incinerator to assure complete combustion.

The Permittee must continuously monitor the furnace roof temperature in order to maintain the temperature at or above 1089 °F. [**Authority**: Permit to Construct #15-1718-2-0132N, Part B(3)]. The roof temperature relates to combustion chamber temperatures which are an indication of good combustion. Poor combustion increases unburned hydrocarbons emissions.

There is sufficient margin of compliance demonstrated by the results of the compliance stack tests so no additional monitoring is required.

Compliance Status discussion:

The results of every stack test since initial operation of the incinerator units have demonstrated compliance with the emission standard. Data collected from the CO CEMS has not shown periods of time that there may be excess hydrocarbon emissions. Data from the continuous temperature monitor for roof temperatures has shown continuous compliance with the temperature limit.

COMPLIANCE SCHEDULE

MCRRF is currently in compliance with all applicable air quality regulations. It is not currently under any compliance schedule

TITLE IV – ACID RAIN

The Permittee is not subject to the requirements of Title IV.

TITLE VI – OZONE DEPLETING SUBSTANCES

The Permittee is not subject to Title VI requirements.

SECTION 112(r) – ACCIDENTAL RELEASE

The Permittee no longer uses anhydrous ammonia and is no longer required to submit a Risk Management Plan (RMP).

PERMIT SHIELD

The Montgomery County RRF requested that a permit shield be expressly included in the Permittee's Part 70 permit. Permit shields are granted on an emission unit by emission unit basis. If an emission unit is covered by a permit shield, a permit shield statement will follow the emission unit table for that unit in

Section IV – Plant Specific Conditions of the permit. In this case, a permit shield was granted for each emission unit covered by the permit.

INSIGNIFICANT ACTIVITIES

This section provides a list of insignificant emissions units that were reported in the Title V permit application. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

(1) No. 2 Stationary internal combustion engines with less than 500 brake horsepower (373 kilowatts) of power output;

The 470 brake horsepower (BHP) emergency diesel generator and the 305 BHP emergency fire pump engines are subject to the following requirements:

(A) COMAR 26.11.09.05E(2), Emissions During Idle Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.

(B) COMAR 26.11.09.05E(3), Emissions During Operating Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.

(C) Exceptions:

(i) COMAR 26.11.09.05E(2) 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.

(ii) COMAR 26.11.09.05E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:

(a) Engines that are idled continuously when not in service: 30 minutes

(b) all other engines: 15 minutes.

(iii) COMAR 26.11.09.05E(2) & (3) do not apply while maintenance, repair or testing is being performed by qualified mechanics.

(D) Requirements from 40 CFR part 63, subpart ZZZZ:

Operation and Maintenance Requirements

§ 63.6602 For an existing emergency stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, the Permittee must comply with the requirements in item 1 of Table 2c to 40 CFR part 63, subpart ZZZZ as follows:

1. Change oil and filter every 500 hours of operation or annually, whichever comes first.

2. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;

3. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

4. Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

5. The Permittee may petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

§ 63.6605(a) requires that the Permittee be in compliance with the applicable requirements in 40 CFR part 63, subpart ZZZZ at all times.

§ 63.6605(b) requires the Permittee to operate and maintain at all times any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation

and maintenance procedures, review of operation and maintenance records, and inspection of the source.

§ 63.6625(e)(2) The Permittee must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

§ 63.6625(f) requires the Permittee to install a non-resettable hour meter if one is not already installed.

§ 63.6640(a) The Permittee must demonstrate continuous compliance with each applicable requirement in Table 2c to 40 CFR part 63, subpart ZZZZ according to methods specified in Table 6 to this subpart.

Table 6, item 9 (existing emergency stationary RICE ≤500 HP located at a major source of HAPs) specifies that the Permittee must operate and maintain the fire pump engine emergency diesel generator according to the manufacturer's emission-related operation and maintenance instructions or develop and follow the Permittee's own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.

§63.6640(f)(1) and (f)(2) provide that in order for the engine to be considered an emergency engine under 40 CFR part 63, subpart ZZZZ, any operation other than emergency operation and maintenance or testing, is prohibited. There is no time limit on the use of the engine in emergency situations. The engine may be operated for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company associated with the engine.

Notification and Reporting Requirements

No notification requirements under §63.6645 or reporting requirements under § 63.6650.

Record Keeping Requirements

§63.6655(e) Requires the Permittee to keep records of the maintenance conducted on the fire pump engine in order to demonstrate that the fire pump engine was operated and maintained according to the Permittee's own maintenance plan.

(2) ✓ Space heaters utilizing direct heat transfer and used solely for comfort heat;

(3) ✓ Water cooling towers and water cooling ponds unless used for evaporative cooling of water from barometric jets or barometric condensers, or used in conjunction with an installation requiring a permit to operate;

(4) No. 2 Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less;

The units are subject to COMAR 26.11.19.09D, which requires that the Permittee control emissions of volatile organic compounds (VOC) from cold degreasing operations by meeting the following requirements:

(a) COMAR 26.11.19.09D(2)(b), which establishes that the Permittee shall not use any VOC degreasing material that exceeds a vapor pressure of 1 mm Hg at 20 ° C;

(b) COMAR 26.11.19.09D(3)(a—d), which requires that the Permittee implement good operating practices designed to minimize spills and evaporation of VOC degreasing material. These practices, which shall be established in writing and displayed such that they are clearly visible to operators, shall include covers (including water covers), lids, or other methods of minimizing evaporative losses, and reducing the time and frequency during which parts are cleaned;

(c) COMAR 26.11.19.09D(4), which prohibits the use of any halogenated VOC for cold degreasing.

The Permittee shall maintain on site for at least five (5) years, and shall make available to the Department upon request, the following records of operating data:

(a) Monthly records of the total VOC degreasing materials used; and

(b) Written descriptions of good operating practices designed to minimize spills and evaporation of VOC degreasing materials.

(5) ✓ Equipment for drilling, carving, cutting, routing, turning, sawing, planing, spindle sanding, or disc sanding of wood or wood products;

(6) ✓ Brazing, soldering, or welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals and not directly related to plant maintenance, upkeep and repair or maintenance shop activities;

(7) Containers, reservoirs, or tanks used exclusively for:

(a) ✓ Storage of butane, propane, or liquefied petroleum, or natural gas;

(b) No. * Storage of lubricating oils;

(c) No. * Unheated storage of VOC with an initial boiling point of 300 °F;

(d) No. 4 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;

(e) No. * Storage of motor vehicle gasoline and having individual tank capacities of 2,00 gallons (7.6 cubic meters) or less;

(f) No. * The storage of VOC normally used as solvents, diluents, thinners, inks colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less;

(8) ✓ Charbroilers and pit barbecues as defined in COMAR 26.11.18.01 with a total cooking area of 5 square feet (0.46 square meter) or less;

(9) ✓ First aid and emergency medical care provided at the facility, including related activities such as sterilization and medicine preparation used in support of a manufacturing or production process;

(10) ✓ Certain recreational equipment and activities, such as fireplaces, barbecue pits and cookers, fireworks displays, and kerosene fuel use;

(11) ✓ Potable water treatment equipment, not including air stripping equipment;

(12) ✓ Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;

(13) ✓ Natural draft hoods or natural draft ventilators that exhaust air pollutants into the ambient air from manufacturing/industrial or commercial processes;

(14) ✓ Laboratory fume hoods and vents;

(15) Any other emissions unit, not listed in this section, with a potential to emit less than the "de minimis" levels listed in COMAR 26.11.02.10X (list and describe units):

No. 1 Stationary natural gas-fired pressure washer

No. 5 Mobile gasoline-fired fired pressure washers

No. 11 Assorted chemical storage tanks, consisting of the following:

21,000 Gal.	Aqueous Ammonia
6,478 Gal.	Sodium Hypochlorite (12-13%)
6,000 Gal.	Sulfuric Acid (93%)
6,000 Gal.	Sodium Hydroxide (50%)
4,372 Gal.	Aluminum Sulfate
900 Gal.	Potassium Hydroxide (2%)
950 Gal.	Sodium Bisulfite (38%)
2,000 Gal.	#2 Diesel oil
350 Gal.	#2 Diesel oil
500 Gal.	#2 Diesel oil
1,500 Gal.	Sulfuric Acid

STATE ONLY ENFORCEABLE REQUIREMENTS

This section of the permit contains state-only enforceable requirements. The requirements in this section will not be enforced by the U.S. Environmental Protection Agency. The requirements in this section are not subject to COMAR 26.11.03 10 - Public Petitions for Review to EPA Regarding Part 70 Permits.

Emissions Units 1, 2, 3
Three (3) 600 TPD Municipal Waste Combustors

Emission Unit 4
Nine (9) storage silos

The Permittee is subject to the following State-only enforceable requirements:

1. Applicable Regulations:

   (a) **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.

   (b) **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.

   (c) **COMAR 26.11.15.06**, which prohibits the discharge of toxic air pollutants to the extent that such emissions will unreasonably endanger human health

2. Operating Conditions:

   (a) Except for periods when none of the boiler units are operating, the refuse storage area shall be maintained at a negative pressure and the odor-bearing air directed to the furnace combustion air supply [Ref: Condition 12 of Part II-Specific Conditions, PSD Approval 2-14-92, amended 6-18-2013].

   (b) By complying with the control requirements contained in the PSD Approval issued on April 25, 1993 and Permits to Construct issued on February 12, 1993, November 23, 1994, and June 8, 1995, which are incorporated into the federally enforceable section of the Title V permit, the Company will assure compliance with the T-BACT (COMAR

26.11.15.05) and the Ambient Impact requirement (COMAR 26.11.15.06).

3. Testing and Monitoring:

The Company was required to install, maintain and operate CEM monitors for hydrogen chloride. Additionally, the Company must do annual testing for HCl and Dioxins/Furans as required by the PSD Approval.

4. Record Keeping and Reporting:

The Permittee shall submit to the Department, by April 1 of each year during the term of this permit, a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. The analysis shall include either:

(a) A statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or

(b) A revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

Interim HCL Control Plan

Montgomery County Resource Recovery Facility

Background

The purpose of this plan is to address HCL emission standards as contained in the Title V Operating Permit for the Montgomery County Resource Recovery Facility (Facility or MCRRF). The MCRRF is a municipal solid waste resource recovery facility operated by Covanta Montgomery, Inc. on behalf of the Northeast Maryland Waste Disposal Authority. The MCRRF consists of three independent combustion trains and has a nominal design capacity of 1,800 tons per day (tpd) at 5500 Btu/lb (higher heating value). The thermal output from the Facility is used to generate up to approximately 63 megawatts (MW) of electricity for in-plant needs and sale to an energy broker. Natural gas fired auxiliary burners are used for unit warm-up, startup, and shutdown periods, as well as to maintain optimum combustion when necessary.

The combustion system is comprised of three (3) identical mass-burn, water wall furnaces, each nominally capable of burning 600 tpd of refuse on an annual average basis. Acid gas emissions (SO2 and HCL) are controlled through a semi-dry scrubber. The semi-dry scrubber utilizes a lime slurry to reduce acid gas emissions. The lime slurry flow rate can vary from zero to approximately 50 gallons per minute, depending on the combustion unit. Additionally, each unit includes a furnace dry lime injection system (FDLIS) that is capable of feeding hydrated lime directly into the combustion zone for supplemental acid gas control on an as needed basis. The dry lime injection rate can vary from zero to approximately 1,000 lbs/hr., depending on the combustion unit.

The MCRRF utilizes HCL Continuous Emission Monitors (CEMS) to monitor emissions performance. The existing HCL CEMS are not capable of being certified to USEPA standards. As such, they are currently used for emission monitoring and function as an additional decision-making tool for Facility operations personnel.

The requirements described herein become enforceable upon issuance of the Title V permit modification that references this plan. Until a certified HCL CEMS is installed on the inlet and outlet of each MWC unit, the MCRRF will continue to utilize the existing HCL CEMS to continuously monitor HCL emissions performance and implement the following actions (as needed) to ensure continuous compliance with the standard:

Action Level #1

- If stack HCL concentration values equal or exceed 22.0 ppm (3-hour block average) and the overall removal efficiency is less than 95%, the following actions would be implemented:
  1. Increase hydrated lime injection into furnace to 100% feeder speed (automatic or manual adjustment dependent on operating conditions)
  2. Visually verify lime flow.
  3. Verify the lime day bin level is adequate.

ACTION LEVEL #2

After implementation of Action Level #1, continue to verify and record both the HCL concentration at the stack and HCL removal efficiency.

- If the HCL stack concentration has fallen below 22.0 ppm (3-hour block average) or the overall removal efficiency equals or exceeds 95%, resume normal operation.
- If the stack concentration equals or exceeds 22.0 ppm (3-hour block average) and if the overall removal efficiency is less than 95%:
  1. Increase lime slurry flow into the scrubber (lime slurry preferentially reacts with HCl, so elevated HCL likely indicates elevated SO_2 as well. As such, HCL in this instance is best controlled by operating slurry control in AUTO at a reduced SO_2 setpoint). Record the slurry flow rate.
  2. Visually confirm operation of slurry flow
     (a) Verify slurry spray pattern
     (b) Adjust/replace slurry spray nozzles if required

ACTION LEVEL #3

After the second 3-hour block average that triggered Action Level #2, verify and record the HCl concentration at the stack.

- If the HCL stack concentration has fallen below 22.0 ppm (3-hour block average) or removal efficiency equals or exceeds 95%, resume normal operation.

- If the stack concentration equals or exceeds 22.0 ppm (3-hour block average) or if removal efficiency is less than 95%:

  1. Verify and document the hydrated lime injection rate.
  2. Verify proper slurry flow to the quench reactor.
     a. Slurry feed pump is operating properly.
     b. Proper flow through the feed loop.
     c. Quench reactor temperature control valve is operating properly.
     d. Quench Reactor nozzles are clear.
  3. Verify that proper slurry density is supplied to the quench reactor.
     a. Slurry control valve is operating properly.
     b. Slurry storage tank mixer is operating properly.
     c. Slaker is operating properly.
  4. Verify that the flue gas inlet conditions are suitable for optimum HCL absorption in the reactor. (400 - 450°F).
  5. Verify whether the HCL reading on the CEM monitor is correct.
     a. Check for HCL monitor calibration errors/malfunctions.
     b. Check "Alarm and Event' report for recent alarms with that monitor.
     c. Complete necessary repairs.

ACTION LEVEL 4

If the HCL stack concentration remains at or above 22.0 ppm and removal efficiency is less than 95% after Action Level #3, boiler load may be reduced, and if necessary, the unit may be taken offline.

NOTES:

Note 1. All concentration values are corrected to 7% oxygen.

Note 2: Excluding Action Levels 1 and 2, the actions cited above may be adjusted or completed in a different sequential order, as needed. Additionally, the above steps may be supplemented by other actions in order to respond to actual operational conditions.

Note 3: Refer to Table A of the Title V Operating Permit for HCL emissions compliance requirements.

Note 4: MCRRF will document actions taken to address the above-referenced Action Levels.

Approved by: _____
Michael Pope, Facility Mgr, Covanta

Date: 8 JUNE 2022

Approved by: Frank Courtney
MDE-ARA Compliance Program

Date: 6-9-22