COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
NORTHERN REGIONAL OFFICE
13901 Crown Court, Woodbridge, Virginia22193
(703) 583-3800 Fax (703) 583-3821
www.deq.virginia.gov

Molly Joseph Ward
Secretarv of Natural Resources

David K. Paylor
Director

Thomas A. Faha
Regional Director

June 10, 2016

Mr. Frank Capobianco
Facility Manager
Covanta Fairfax, Inc.
9898 Furnace Road
Lorton, Virginia 22079

Location: Fairfax County
Registration No.: 71920

Dear Mr. Capobianco:

Attached is a renewal Title V permit to operate a municipal solid waste combustion facility pursuant to 9 VAC 5 Chapter 80, Article 1, of the Virginia Regulations for the Control and Abatement of Air Pollution. This permit incorporates provisions from the Prevention of Significant Deterioration (PSD) Permit dated January 12, 1987, as amended February 18, 1988.

In the course of evaluating the application and arriving at a final decision to issue this permit, the Department of Environmental Quality (DEQ) deemed the application complete on April 7, 2016, and solicited written public comments by placing a newspaper advertisement in *The Washington Times* newspaper on April 12, 2016. The thirty-day comment period (provided for in 9 VAC 5-80-270) expired on May 13, 2016.

The permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and civil penalty. Please read all permit conditions carefully.

This permit approval shall not relieve Covanta Fairfax, Inc. of the responsibility to comply with all other local, state and federal permit regulations.

Issuance of this permit is a case decision. The Regulations, at 9 VAC 5-170-200, provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this permit is mailed or delivered to you. Please consult this and other relevant provisions for additional requirements for such requests. Additionally, as provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal to court by filing a Notice of Appeal with:

David K. Paylor, Director
Department of Environmental Quality
P.O. Box 1105
Richmond, Virginia 23218

In the event that you receive this permit by mail, three days are added to the period in which to file an appeal. Please refer to Part Two A of the Rules of the Supreme Court of Virginia, at http://www.courts.state.va.us/courts/scv/rules.html, for additional information including filing dates and the required content of the Notice of Appeal.

If you have any questions concerning this permit, please contact Tom Valentour at (703) 583-3931.

Sincerely,

Thomas A. Faha
Regional Director

Attachment: Permit

c: Director, OAPP (electronic file submission)
Manager, Data Analysis (electronic file submission)
Chief, Permits and Technical Assessment Branch (3AP11), U.S. EPA, Region III

COMMONWEALTH of VIRGINIA

Molly Joseph Ward
Secretary of Natural Resources

DEPARTMENT OF ENVIRONMENTAL QUALITY
NORTHERN REGIONAL OFFICE
13901 Crown Court, Woodbridge, Virginia 22193
(703) 583-3800
www.deq.virginia.gov

David K. Paylor
Director

Thomas A. Faha
Regional Director

Federal Operating Permit
Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Covanta Fairfax, Inc.
Facility Name:	Covanta Fairfax
Facility Location:	9898 Furnace Road Lorton, Virginia 22079
Registration Number:	71920

Permit Number	Effective Date	Expiration Date
NRO71920	June 10, 2016	June 9, 2021

Thomas A. Faha
Regional Director

June 10, 2016
Signature Date

Permit consists of 55 pages.
Permit Conditions 1 to 157.
Source Test Report Format
Appendix A (Reserved)
Appendix B (Reserved)

Table of Contents

FACILITY INFORMATION 3

EMISSION UNITS 4

MUNICIPAL WASTE COMBUSTOR REQUIREMENTS - (EMISSION UNIT ID# 001-01/02 THROUGH 004-01/02) 5
- LIMITATIONS 5
- PARAMETRIC MONITORING 14
- CONTINUOUS EMISSIONS MONITORING 16
- RECORDKEEPING 24
- PERFORMANCE TESTING 26
- REPORTING 32

COLD SOLVENT DEGREASING REQUIREMENTS – (EMISSION UNIT ID# 005) 35

FACILITY WIDE CONDITIONS 37
- MWC OPERATOR TRAINING AND CERTIFICATION REQUIREMENTS 37
- RICE MACT SUBPART ZZZZ REQUIREMENTS 40

INSIGNIFICANT EMISSION UNITS 43

PERMIT SHIELD & INAPPLICABLE REQUIREMENTS 44

GENERAL CONDITIONS 45

STATE-ONLY ENFORCEABLE REQUIREMENTS 54

SOURCE TEST REPORT FORMAT

APPENDIX A (RESERVED)

APPENDIX B (RESERVED)

Facility Information

Permittee
Covanta Fairfax, Inc.
445 South Street
Morristown, NJ. 07960

Responsible Official
Frank Capobianco
Facility Manager

Facility
Covanta Fairfax, Inc.
9898 Furnace Road
Lorton, Virginia 22079

Contact Person
Joseph Herrmann
Environmental Specialist
(973) 882-7285

County-Plant Identification Number: 51-059-00560

Facility Description: NAICS 562213/SIC 4953 – Covanta Energy owns and operates a large municipal solid waste combustion facility with energy recovery under an agreement with Fairfax County. The facility maintains four 750 ton per day (nominal) waste combustion units with integrated reciprocating grate stokers and water wall boilers. Each combustor is also equipped with two natural gas-fired auxiliary burners. Products of combustion from each combustor are controlled by good combustion practices, ammonia injection (selective non-catalytic reduction), a combination of spray dyer and fabric filter baghouse, and activated carbon injection to reduce nitrogen oxides (NO_x), carbon monoxide (CO), particulate matter (PM and PM-10), acid gases, metals and complex organics among others. Steam generated by the boilers drive turbines that generate electricity for sale to the local electric company.

The facility operates under the Prevention of Significant Deterioration Permit dated January 12, 1987, as amended February 18, 1988, and a Consent Agreement dated April 3, 1998, implementing Reasonably Available Control Technology. The requirements of the RACT consent agreement have been fulfilled. The facility is also subject to state Rule 4-54 (9 VAC 5-40-7950 et seq.) of the Virginia Air Pollution Control Board's Regulations for the Control and Abatement of Air Pollution. This rule implements various emissions limitations, operating, compliance, and record keeping requirements established by the Emissions Guidelines, Subpart Cb. Rule 4-54 is the approved Clean Air Act Section 111(d)/129 plan for Large Municipal Waste Combustor (MWC) Units regulated under 40 CFR 62, Subpart VV sections 62.11640 through 62.11642 and was approved on October 29, 2004.

Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment (Municipal Waste Combustors (MWC) and Auxiliary Burners)							
001-01 through 004-01	001-004	Ogden-Martin MSW Combustor with Martin-Stoker boiler system (4 MWC units)	343.75 MMBtu (heat input) (each MWC unit)	SNCR (ammonia injection); CY2000	---	NOx	PSD permit, dated January 12, 1987, amended February 18, 1988. NOx RACT Consent Agreement, dated April 3, 1998.
				Flakt spray dryer; CY1988	1, 4, 7 & 10	SO2 & MWC acid gases	
				Flakt fabric filter baghouse; CY1988	3, 6, 9 & 12	MWC metals & PM/PM_{10}	
				Activated carbon injection system	---	Mercury	
001-02 A,B through 004-01 A,B	001-004	Zurn natural gas-fired auxiliary burners (2 each MWC unit)	103.125 MMBtu (heat input) (each MWC unit)	Same as for the MWCs	Same as for the MWCs	Same as for the MWCs	Same as for the MWCs
Cold Solvent Degreasers							
005	n/a	Cold solvent degreasers	n/a	None	---	---	---
Emergency Diesel Generator							
IU-10	008-01	Emergency Diesel Engine Generator Set	435 bhp	None	---	---	---

*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

Municipal Waste Combustor (MWC) Equipment– (001-01, 001-02, 002-01, 002-02, 003-01, 003-02, 004-01 and 004-02)

1. **MWC Limitations** – Particulate matter and municipal waste combustor (MWC) metal emissions, including cadmium, lead and mercury, from each MWC furnace shall be controlled by fabric filter baghouses. The fabric filter baghouses shall be provided with adequate access for inspection and shall be in operation when the MWC furnaces are operating.
(9 VAC 5-80-110 and Condition 8 and 9 of 1/12/87 PSD Permit)

2. **MWC Limitations** – Carbon monoxide (CO), nitrogen oxides (NO_x) and volatile organic compound (VOC) emissions from each MWC furnace shall be controlled by furnace design, proper operation, and good combustion practices as listed in Condition 12.
(9 VAC 5-80-110 and Condition 10 of 1/12/87 PSD Permit)

3. **MWC Limitations** – Municipal waste combustor organics (dioxins/furans) shall be controlled by proper operation and good combustion practices as listed in Condition 12.
(9 VAC 5-80-110 and Condition 16 of 1/12/87 PSD Permit)

4. **MWC Limitations** – The approved fuel for each municipal waste combustor (MWC) is municipal solid waste (MSW). A change in the fuel may require a permit to modify and operate. Acceptable municipal solid waste includes household waste, commercial/retail waste, institutional waste, incidental quantities of renovation waste, limited quantities of used pharmaceuticals from approved community/government collection events, and other waste with emission characteristics similar to the acceptable wastes as determined by the permittee and approved by the Regional Air Permit Manager, Northern Regional Office, or a combination thereof as defined in this condition. Household waste includes material discarded by single and multiple residential dwellings, hotels, motels, and other similar permanent or temporary housing establishments or facilities. Commercial/retail waste includes material discarded by stores, offices, restaurants, warehouses, non-manufacturing activities at industrial facilities, and other similar establishments or facilities. Any other waste shall be reviewed in accordance with the approved Material Review Process (MRP). All Commercial/retail waste shall be mixed with other approved fuels prior to charging to the combustor, in order to prevent discreet loads from being charged to the boiler. Institutional waste includes material discarded by schools, non-medical waste discarded by hospitals, material discarded by non-manufacturing activities at prisons and government facilities, and material discarded by other similar establishments or facilities. Municipal solid waste does not include hazardous waste, as defined by federal and state waste regulations. In addition, municipal solid waste may not include industrial process or manufacturing waste, used oil, sewage sludge, wood pallets, construction, renovation, and demolition wastes, medical waste, motor vehicles (including motor vehicle parts or vehicle

fluff), unless approved via the approved MRP. The permittee shall monitor the waste delivered to the facility to ensure that only MSW as defined herein is being processed by the facility. This definition of MSW may in the future be expanded to include additional waste types not identified in this condition. To facilitate any revision, the permittee shall submit requests in writing to the Regional Air Permit Manager, Northern Regional Office. Information on waste composition and emissions characterizations shall be included with any submittal. The request and supporting information will be reviewed and evaluated to determine new source review applicability. The permit will be revised in accordance with the procedures established in the appropriate permitting regulations in the Regulations for the Control and Abatement of Air Pollution.
(9 VAC 5-80-110 and Condition 5 and 22 of 1/12/87 PSD Permit)

5. **MWC Limitations** – The approved auxiliary fuel for each MWC is natural gas. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-110 and Condition 11 of 1/12/87 PSD Permit)

6. **MWC Limitations** – The charging rate of each MWC shall not exceed 750 dry tons per day of MSW, adjusted for moisture content. For the purpose of this permit, the moisture adjustment shall be 18 percent by weight, resulting in an effective wet-based limit of 885 tons per day per MWC. Compliance shall be demonstrated based on monitoring conducted in accordance with Condition 21. This limit on charging rate applies on a thirty-day rolling average. The permittee may request the use of alternate moisture content by submitting information to support the use of the alternative. This may consist of an alternative value, or a process or methodology to determine a variable value. The request and supporting information must be submitted to the Air Permit Manager, Northern Regional Office, for consideration and approval prior to use. Appendix A to this permit will serve as the repository of the alternative values and approaches such that changes can be made to the value or approaches without amending the main body of this permit. The permit will be revised in accordance with the procedures established in 9 VAC 5-80-190 as appropriate.
(9 VAC 5-80-110 and Condition 5 of 1/12/87 PSD Permit)

7. **MWC Limitations** – The facility shall process no more than 1,095,000 tons per year of MSW, corrected for moisture. For the purpose of this permit, the moisture adjustment shall be 18 percent by weight, resulting in an effective wet-based limit of 1,292,100 tons per year. Compliance shall be demonstrated based on daily waste monitoring conducted in accordance with Condition 21. The permittee may request the use of alternate moisture content as provided in Condition 6.
(9 VAC 5-80-110 and Condition 5 of 1/12/87 PSD Permit)

8. **MWC Limitations** – The permittee shall operate each MWC at a load level no greater than 110 percent of the maximum demonstrated unit load for that unit. Maximum demonstrated load is defined as the highest 4-hour arithmetic average MWC steam load achieved during four consecutive hours during the most recent dioxin/furan performance test. Exceptions to this requirement are as follows:

   a. During the annual dioxin/furan performance test and the 2 weeks preceding the annual dioxin/furan performance test, the MWC unit load limit is not applicable.

   b. The MWC unit load limit may be waived in accordance with written permission granted by the Air Compliance Manager, Northern Regional Office, 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.

   c. During calendar years where no performance test for dioxin/furans are required due to the reduced testing schedule as authorized in Condition 76, the affected MWC unit shall conform to the maximum demonstrated MWC unit load level limit as determined during the most recent performance test.

   d. Compliance shall be demonstrated based on data derived from steam flow or feed water flow measurements required in Condition 23.

   (9 VAC 5-80-110 and 9 VAC 5-40-8120 A)

9. **MWC Limitations** – The permittee shall maintain the temperature at the inlet of each fabric filter baghouse to within but no greater than 17 °C of the maximum demonstrated inlet fabric filter baghouse temperature. Maximum demonstrated inlet fabric filter baghouse temperature is defined as the highest 4-hour arithmetic average flue gas temperature measured at the fabric filter baghouse inlet during four consecutive hours during the most recent dioxin/furan performance testing. Exceptions to this requirement are as follows:

   a. During the annual dioxin/furan performance test and the 2 weeks preceding the annual dioxin/furan performance test, the fabric filter baghouse inlet temperature limit is not applicable.

   b. During calendar years where no performance test for dioxin/furans are required due to the reduced testing schedule as authorized in Condition 76, the affected MWC unit shall conform to the fabric filter baghouse inlet temperature limit as determined during

the most recent performance test.

c. Compliance shall be demonstrated based on data derived from temperature measurements required in Condition 25. These data shall be maintained on site and made available to Department of Environmental Quality (DEQ) personnel in order to determine compliance status.

(9 VAC 5-80-110 and 9 VAC 5-40-8120 B)

10. **MWC Limitations** – The permittee shall maintain the carbon injection system operating parameters that are the primary indicators of carbon mass feed rate to levels equal to or greater than those documented during the most recent mercury performance test. The permittee has identified gravimetric feed rate as the preferred indicator of carbon mass feed rate. Compliance shall be demonstrated based gravimetric feed rate measurements required in Condition 28. These data shall be maintained on site and made available to DEQ personnel in order to determine compliance status. During the annual dioxin/furan performance test and the two weeks preceding the annual dioxin/furan performance test, the MWC carbon injection rate is not applicable.
(9 VAC 5-80-110, 9 VAC 5-40-8140 J and NSPS Subpart Eb §60.53b (b)(2) and §60.53b (c)(2))

11. **MWC Limitations** – The permittee shall monitor and record the pressure drop across each fabric filter baghouse on a daily basis. These data shall be maintained on site and made available to DEQ personnel in order to determine compliance status.
(9 VAC 5-80-110 and Condition 15 of 1/12/87 PSD Permit)

12. **MWC Limitations** – The permittee shall operate and maintain each MWC unit utilizing methods and techniques consistent with proper operation and good combustion practices, and in a manner consistent with good air pollution control practices of minimizing emissions. For the purpose of this permit, at a minimum, proper operation and good combustion practices shall be demonstrated by the following:

a. Compliance with maximum MWC unit load level in Condition 8,

b. Compliance with the fabric filter baghouse inlet temperature level in Condition 9,

c. Maintaining minimum boiler/furnace temperature of 1800 °F averaged over a four-hour block (as determined by boiler roof-top temperature above 1135 °F, four-hour block average). This condition applies when each MWC unit is combusting MSW and does not apply when each MWC unit is only combusting auxiliary fuel.

d. Maintaining appropriate and stable excess air established to accommodate the variable energy and moisture content of the waste, as confirmed by hourly steam generation data,

e. Compliance with the CO emission standard in Condition 13 and CO emission limit in Condition 15, as confirmed by the CO monitoring system required in Condition 51, and

f. Compliance with the opacity limit in Condition 17, as confirmed by the opacity monitoring systems required in Condition 30.

(9 VAC 5-80-110 and Condition 10 of 1/12/87 PSD Permit)

13. **MWC Limitations (Rule 4-54 Emission Standards)** – Emissions from the operation of each MWC unit shall not exceed the limits specified below:

a. Particulate Matter (PM): 27 milligrams per dry standard cubic meter, corrected to 9 percent oxygen (O_2).
(9 VAC 5-40-7970)

b. Carbon Monoxide (CO): 100 parts per million by volume, corrected to 7 percent O2, dry basis, calculated as a 4-hour block arithmetic average. This 4-hour block average is defined as the average of four consecutive one-hour emission concentrations measured over periods of time from 12:00 midnight to 4 a.m., 4a.m. to 8 a.m., 8 a.m. to 12:00 noon, 12:00 noon to 4 p.m., 4p.m. to 8 p.m., and 8 p.m. to 12:00 midnight. (The 4-hour block average calculation should exclude those hours in which no waste was being combusted for the full hour.)
(9 VAC 5-40-7980 and 9 VAC 5-40-7960 C)

c. Sulfur Dioxide (SO_2): 29 parts per million by volume, or 25 percent of the potential SO_2 emission concentration (75 percent reduction by weight or volume), corrected to 7 percent O_2, dry basis, whichever is less stringent. Compliance with this standard is based on a 24-hour daily geometric mean. This 24-hour daily average is defined as the geometric mean of all hourly average emission concentrations measured over a 24-hour period between 12:00 midnight and the following midnight. (The 24-hour average calculation should exclude those hours in which no waste was being combusted for the full hour.)
(9 VAC 5-40-8020 and 9 VAC 5-40-7960 C)

d. Nitrogen Oxides (NOx): 205 parts per million by volume, corrected to 7 percent O_2, dry basis, based on a 24-hour daily arithmetic average. This 24-hour daily average is defined as the arithmetic average of all hourly average emission concentrations measured over a 24-hour period between 12:00 midnight and the following 12:00 midnight. (The 24-hour average calculation should exclude those hours in which no waste was being combusted for the full hour.)
(9 VAC 5-40-8050 and 9 VAC 5-40-7960 C)

e. Hydrogen Chloride (HCl): 29 parts per million by volume or 5 percent of the potential HCl emission concentration (95 percent reduction by weight or volume), corrected to 7 percent O_2, dry basis, whichever is less stringent.
(9 VAC 5-40-8030)

f. Cadmium: 0.040 milligrams per dry standard cubic meter, corrected to 7 percent O_2.
(9 VAC 5-40-7990)

g. Lead: 0.44 milligrams per dry standard cubic meter, corrected to 7 percent O_2.
(9 VAC 5-40-8000)

h. Mercury: 0.080 milligrams per dry standard cubic meter or 15 percent of the potential mercury emission concentration (85 percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent.
(9 VAC 5-40-8010)

i. Dioxin/Furan: 30 nanograms per dry standard cubic meter, expressed as total mass dioxins/furans, corrected to 7 percent oxygen.
(9 VAC 5-40-8040)

Compliance with these emission standards shall be determined by continuous emissions monitors (CEMs) or performance tests as detailed throughout this permit. The permittee may request that compliance with these emission standards be determined using carbon dioxide (CO_2) measurements corrected to an equivalent of 7 percent O_2. If authorized to do so, the permittee shall establish the relationship between O_2 and CO_2 levels as specified in Condition 35.
(9 VAC 5-80-110 and 9 VAC 5-40-8140 D)

14. **MWC Limitations** – The emission standards in Condition 13 apply at all times except during periods of startup, shutdown, and malfunction. Duration of startup, shutdown, or malfunction periods are limited to three hours per occurrence, except as provided below:

    a. The startup period commences when the MWC unit begins continuous burning of MSW. This does not include any warm-up period when the MWC unit is combusting natural gas and no MSW is being fed to the combustor.

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

    c. For the purpose of compliance with the CO emission limit, if a boiler water level control or 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 fifteen hours per occurrence.

    d. Maintaining minimum boiler/furnace temperature of 1800 °F averaged over a four-hour block (as determined by boiler roof-top temperature above 1135 °F, four-hour block average). This condition applies when each MWC unit is combusting MSW and does not apply when each MWC unit is only combusting auxiliary fuel.

    e. The selected parameters that define normal operation for the facility is when the dry inlet O_2 is less than or equal to sixteen percent, or steam flow is greater than or equal to 70,000 pounds per hour. If either of these conditions is not met, and CFI has ceased feeding MSW into the combustor, the combustor shall be considered shut down.

    (9 VAC 5-80-110 and 9 VAC 5-40-8100 B.1)

15. **MWC Limitations** – Emissions from the operation of each MWC unit shall not exceed the limits specified below:

SO2	44.4 lbs/hr	176.6 tons/yr
NOx (as NO_2)	206.3 lbs/hr	716.2 tons/yr
CO	158.1 lbs/hr	60.3 tons/yr
PM	7.5 lbs/hr	30.0 tons/yr
Lead	1.7 lbs/hr	6.7 tons/yr

Compliance shall be determined based on CEMS data, compliance with control device operational parameters/limitations, fuel restrictions and steam limits, MWC operational data, results of annual stack tests, record keeping and any other relevant information necessary which can provide credible evidence of emissions performance. Annual emissions shall be calculated on a calendar year basis.
(9 VAC 5-80-110 and Condition 6 of 1/12/87 PSD Permit)

16. **MWC Limitations** – Non criteria pollutant emissions from the operation of each MWC unit shall not exceed the limits specified below:

Cadmium	4.7×10^{-2} lbs/hr	0.19 tons/yr
Mercury	0.33 lbs/hr	1.32 tons/yr
Hydrogen Chloride (HCl)	28.53 lbs/hr	113.6 tons/yr
Total Dioxins & Furans (US EPA Equivalents)	2.0 ng/m^3	2.42×10^{-6} tons/yr
Hydrogen Fluoride (HF)	0.45 lbs/hr	1.78 tons/yr
Sulfuric Acid Mist	7.1 lbs/hr	28.3 tons/yr

Compliance with the limits shall be determined based on compliance with control device operational parameters/limitations, fuel restrictions and steam limits, MWC operational data, results of the annual stack tests, record keeping and any other relevant information necessary which can provide credible evidence of emissions performance. Annual emissions shall be calculated on a calendar year basis.
(9 VAC 5-80-110 and Condition 7 of 1/12/87 PSD Permit)

17. **MWC Limitations** – The permittee shall not cause or permit to be discharged into the atmosphere from each MWC unit any visible emissions in excess of 10 percent opacity during any six-minute period. Compliance shall be demonstrated annually as provided in Condition 71. Continuous opacity monitoring data collected for the purpose of compliance with this condition shall be used as an indicator of proper operation and good combustion practices and as a tool to implement corrective actions as necessary. The permittee may be required to conduct a retest of visible emissions after any corrective actions have been completed.
(9 VAC 5-80-110, 9 VAC 5-40-8060 and Condition 20 of 1/12/87 PSD permit)

18. **MWC Limitations** – The permittee shall not cause or permit to be discharged into the atmosphere visible emissions from combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5 percent of the observation period (9 minutes per 3-hour period) as determined by Reference Method 22 observations as specified in Condition 79, except as provided in a. and b. below:

    a. The emission limit shall not cover visible emissions discharged inside buildings or enclosures of ash conveying systems, however the emission limit shall cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems.

    b. The emission limit shall not apply during periods of maintenance and repair of the ash handling system.

    (9 VAC 5-80-110 and 9 VAC 5-40-8070)

19. **MWC Limitations** – The Department of Environmental Quality, Northern Regional Office may notify the permittee when meteorological conditions are favorable for the potential buildup of ozone concentrations in the area for more than 24 hours, when they exceed the National Ambient Air Quality Standard (8-hr standard of 0.08 ppm) and when concentrations are no longer expected to exceed the standard. A Code Red ozone day forecast by the local air quality advisory network shall be considered appropriate notification of such an event. After either of these notifications, the permittee shall take reasonable actions to minimize impact of the facility during periods of expected adverse air quality.
(9 VAC 5-80-110 and Condition 24 of 1/12/87 PSD permit)

20. **MWC Monitoring** – The permittee shall monitor and record daily hours of operation of each MWC unit.
(9 VAC 5-80-110 and Condition 18 of 1/12/87 PSD Permit)

21. **MWC Monitoring** – The permittee shall monitor and record the daily mass (in tons) of MSW combusted in each MWC. This shall be accomplished by measuring waste in delivery trucks as each truck passes over scales upon entering the facility, and subtracting the estimated portion of the daily waste stream that is separated for other disposal options prior to transfer to the pit. The sum of the delivery records minus the separated portion for each day divided by four units shall be used to approximate the quantity of waste that is combusted by each MWC over a rolling thirty-day period. The permittee may request or the DEQ may require the use of steam measurements as a surrogate to waste measured across the scale as the method to demonstrate compliance with the waste capacity and throughput limits in Condition 6 and 7. The request and supporting information must be submitted to the Air Permit Manager for consideration and approval prior to use. At a minimum, the submission should contain the approach, calculation methodology, and procedures to verify the correlation between waste combusted and the steam generated. Appendix B to this permit will serve as the repository of the accepted approach, calculation methodology, and procedures to verify the correlation between waste combusted and the steam generated provided the result utilizing the proposed approach does not trigger state or federal new source review applicability. The permit will be revised in accordance with the procedures established in 9 VAC 5-80-190 as appropriate.
(9 VAC 5-80-110, 40 CFR 60.53 and Condition 18 of 1/12/87 PSD Permit)

22. **MWC Monitoring** – The permittee shall continuously monitor temperature within the furnace to ensure proper operation, good combustion practices and compliance with the temperature requirement in Condition 12.
(9 VAC 5-80-110 and Condition 15 of 1/12/87 PSD Permit)

23. **MWC Monitoring** – The permittee shall demonstrate compliance with load level requirements in Condition 8 based on the procedures specified below:

    a. The permittee shall install, calibrate, maintain, and operate a steam flow meter or a feed water flow meter; measure steam (or feed water) flow in thousand pounds per hour on a continuous basis; and record the output of the monitor. Steam (or feed water) flow shall also be calculated in 4-hour block arithmetic averages. Steam flow measurements shall be made prior to any non-emergency steam venting locations.

    b. Measurement devices such as flow nozzles and orifices are not required to be re-calibrated after they are installed.

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

(9 VAC 5-80-110 and 9 VAC 5-40-8150 C)

24. **MWC Monitoring** – The permittee shall determine the maximum demonstrated MWC unit load during each performance test during which compliance with the dioxin/furan emission standard specified in Condition 13 is achieved. The maximum demonstrated MWC unit load shall be the highest 4-hour arithmetic average load achieved during four consecutive hours during the most recent test during which compliance with the dioxin/furan emission limit was achieved. The measured MWC unit loads and calculated maximum demonstrated MWC unit loads required by this condition shall be displayed in the performance test report(s) submitted in accordance with Condition 69.
(9 VAC 5-80-110 and 9 VAC 5-40-8150 C)

25. **MWC Monitoring** – The permittee shall install, calibrate, maintain, and operate a device for measuring the temperature of the flue gas stream at the inlet to each fabric filter baghouse on a continuous basis. The temperature shall be calculated in 4-hour block arithmetic averages to determine compliance with the maximum fabric filter baghouse, inlet temperature requirements in Condition 9.
(9 VAC 5-80-110 and 9 VAC 5-40-8150 C)

26. **MWC Monitoring** – The maximum demonstrated fabric filter baghouse inlet temperature shall be determined during each performance test for dioxins/furans during which compliance with the dioxin/furan emission standard specified in Condition 13 is achieved. The maximum demonstrated fabric filter baghouse inlet temperature shall be the highest 4-hour arithmetic average temperature achieved at the fabric filter baghouse inlet during four consecutive hours during the most recent test during which compliance with the dioxin/furan limit was achieved.
(9 VAC 5-80-110 and 9 VAC 5-40-8150 C)

27. **MWC Monitoring** – During the performance tests for mercury, the permittee shall estimate an average carbon mass feed rate (as specified below) based on carbon injection system operating parameters such as the gravimetric feed rate, hopper volume, hopper refill frequency, or other parameters appropriate to the feed system being employed.

    An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during each performance test for mercury emissions based on an 8-hour average. The mercury test occurs over an 8-hour period; three 2-hour test runs plus two hours to allow for port changes. Though mercury sampling is not being conducted during port changes, carbon injection is continuing in order to support required mercury removal. To obtain representative injection rates, the permittee must therefore maintain the same injection rate during port changes as maintained during the test period prior to the port changes.
    (9 VAC 5-80-110, 9 VAC 5-40-8140 J. and EPA document 0106-00-002-002, page 9-1)

28. **MWC Monitoring** – The 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:

    a. The weight of carbon delivered to the plant, adjusted for silo inventory.

    b. Estimate the average carbon mass feed rate in kilograms per hour or pounds per hour for each hour of operation for each carbon injection system based on the operating parameters specified in Condition 10, and sum the results for carbon injection systems at the plant for the total number of hours of operation during the calendar quarter.

    (9 VAC 5-80-110 and 9 VAC 5-40-8140 J)

29. **MWC Monitoring** – The provisions of 40 CFR 60.13 – Monitoring Requirements, shall apply with regard to the emission standards and limits contained in Conditions 13, and 15 - 17, and installation, evaluation and operation of each CEMS required in this section.
    (9 VAC 5-80-110, 9 VAC 5-40-8140 A. and 40 CFR 60.13)

30. **MWC Monitoring** – The permittee shall install, calibrate, maintain and operate a continuous opacity monitor system (COMS) for measuring opacity from each MWC stack in accordance with the provisions listed below:

    a. The COMS shall be installed, evaluated, and operated in accordance with 40 CFR 60.13.

    b. The output of the COMS shall be recorded on a 6-minute block average basis.

    c. The COMS shall conform to Performance Specification 1 in Appendix B of 40 CFR 60.

    (9 VAC 5-80-110, 9 VAC 5-40-8140 B. and Condition 15 of 1/12/87 of PSD Permit)

31. **MWC Monitoring** – The permittee shall install, calibrate, maintain, and operate a continuous emission monitoring system (CEMS) and record the output of the system for measuring the O_2 or CO_2 content of the flue gas at each location where carbon monoxide, sulfur dioxide, or nitrogen oxides are monitored. The monitor shall be installed, evaluated and operated in accordance with 40 CFR 60.13.
    (9 VAC 5-80-110, 9 VAC 5-40-8150 B. and Condition 15 of 1/12/87 PSD Permit)

32. **MWC Monitoring** – The span value of the O_2 (or CO_2) monitor shall be 25 percent O_2 (or CO_2).
    (9 VAC 5-80-110 and 9 VAC 5-40-8150 B.1)

33. **MWC Monitoring** – All O_2 or CO_2 CEMS shall conform to Performance Specification 3 in appendix B of 40 CFR 60 except for section 2.3 (relative accuracy requirement).
    (9 VAC 5-80-110 and 9 VAC 5-40-8150 B.4)

34. **MWC Monitoring** – The procedures of Appendix F of 40 CFR 60 except for section 5.1.1 (relative accuracy test audit) shall apply to the O_2 or CO_2 CEMS.
    (9 VAC 5-80-110 and 9 VAC 5-40-8140 B)

35. **MWC Monitoring** – If CO_2 is selected for use in diluent corrections, the relationship between oxygen and carbon dioxide levels shall be established during performance tests according to the procedures and methods as specified below:

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

    b. Samples shall be taken for at least 30 minutes in each hour.

    c. Each sample shall represent a 1-hour average.

    d. A minimum of three runs shall be performed.

    (9 VAC 5-80-110 and 9 VAC 5-40-8150 B)

36. **MWC Monitoring** – The permittee shall install, calibrate, maintain, and operate ~~a~~ continuous emissions monitoring systems (CEMS) for measuring sulfur dioxide (SO_2) emissions prior to the spray dryers and discharged from each MWC stack, and record the output of the systems.
    (9 VAC 5-80-110, 9 VAC 5-40-8140 D. and Condition 15 of 1/12/87 PSD Permit)

37. **MWC Monitoring** – Compliance with the SO_2 emission standard contained in Condition 13 shall be determined by using the CEMS specified in Condition 36. The CEMS shall be used to calculate a 24-hour daily geometric average emission concentration or a 24-hour daily geometric average percent reduction using Reference Method 19, sections 4.3 and 5.4, as applicable. Compliance with the SO_2 emission limit shall be determined based on the 24-hour daily geometric average of the hourly arithmetic average emission concentrations using CEMS outlet data if compliance is based on an emission concentration or CEMS inlet and outlet data if compliance is based on a percent reduction.
    (9 VAC 5-80-110 and 9 VAC 5-40-8140 D)

38. **MWC Monitoring** – At a minimum, valid SO_2 CEMS hourly averages shall be obtained as specified below, for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that each MWC unit is combusting MSW.

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

    b. Each SO_2 1-hour arithmetic average shall be corrected to 7 percent O_2 on an hourly basis using the 1-hour arithmetic average of the O_2 (or CO_2) CEMS data.

    (9 VAC 5-80-110 and 9 VAC 5-40-8140 D)

39. **MWC Monitoring** – The 1-hour arithmetic averages required under Condition 37 shall be expressed in parts per million corrected to 7 percent O_2 (dry basis) and used to calculate the 24-hour daily geometric average emission concentrations and daily geometric average emission percent reductions. The hourly average shall be calculated based on completion of a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period, as specified in 40 CFR 60.13(e)(2).
    (9 VAC 5-40-8140 D)

40. **MWC Monitoring** – All valid SO_2 CEMS data shall be used in calculating average emission concentrations and percent reductions even if the minimum CEMS data requirements of Condition 38 are not met.
    (9 VAC 5-80-110 and 9 VAC 5-40-8140 D)

41. **MWC Monitoring** – When SO_2 emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems, as approved in writing by the Air Compliance Manager, Northern Regional Office and U.S. Environmental Protection Agency (EPA), or Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 75 percent of the hours per day that the facility is operated and combusting MSW for 90 percent of the days per calendar quarter that each MWC is operated and combusting MSW.

    Whenever a continuous emission monitor is malfunctioning or will be out of service for calibration, maintenance or repair for a period of twenty four hours or more, surrogate compliance monitoring of the following parameters may be implemented with approval of the DEQ until such time as the emission monitor is back in operation:

For the sulfur dioxide outlet monitor, the permittee shall maintain slurry flow at the rate at which it was being fed prior to the malfunction or out of service period and will record the slurry feed rate twice per hour.
(9 VAC 5-80-110 and 9 VAC 5-40-8140 D)

42. **MWC Monitoring** – The SO_2 CEMS shall be operated according to Performance Specification 2 in appendix B of 40 CFR 60.

    a. During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 2 in Appendix B of 40 CFR 60, SO_2 and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the CEMS and the test methods specified below.

        (i) For SO_2, Reference Method 6, 6A, or 6C shall be used.

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

    b. The span value of the CEMS at the inlet to the sulfur dioxide control device shall be 125 percent of the maximum estimated hourly potential SO_2 of the MWC unit. The span value of the CEMS at the outlet of the SO_2 control device shall be 50 percent of the maximum estimated hourly potential SO_2 emissions of the MWC unit.

    (9 VAC 5-80-110 and 9 VAC 5-40-8140 D)

43. **MWC Monitoring** – Quarterly accuracy determinations and daily calibration drift tests on the SO_2 CEMS shall be performed in accordance with Procedure 1 in Appendix F of 40 CFR 60.
    (9 VAC 5-80-110 and 9 VAC 5-40-8140 D.13)

44. **MWC Monitoring** – The permittee shall install, calibrate, maintain, and operate a CEMS for measuring nitrogen oxides (NO_x) discharged from each MWC stack and record the output of the system.
    (9 VAC 5-80-110, 9 VAC 5-40-8140 G. and Condition 15 of 1/12/87 PSD Permit)

45. **MWC Monitoring** – Compliance with the NO_x emissions limits in Condition 13 shall be determined by using the CEMS specified in Condition 44. The CEMS shall be used to calculate a 24-hour daily arithmetic average emission concentration using Reference Method 19, section 4.1. Compliance shall be determined based on the 24-hour daily arithmetic average of the 1-hour arithmetic average emission concentrations, expressed in parts per million by volume (dry basis), using CEMS outlet data. The hourly average shall

be calculated based on completion of a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period, as specified in 40 CFR 60.13(e)(2).
(9 VAC 5-80-110 and 9 VAC 5-40-8140 G)

46. **MWC Monitoring** – At a minimum, valid NOx CEMS hourly averages shall be obtained as specified below for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that each MWC unit is combusting MSW.

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

    b. Each NOx 1-hour arithmetic average shall be corrected to 7 percent O_2 on an hourly basis using the 1-hour arithmetic average of the O_2 (or CO_2) CEMS data.

    (9 VAC 5-80-110 and 9 VAC 5-40-8140 G)

47. **MWC Monitoring** – All valid NOx CEMS data must be used in calculating emission averages even if the minimum CEMS data requirements of Condition 46 are not met.
(9 VAC 5-80-110 and 9 VAC 5-40-8140 G)

48. **MWC Monitoring** – When NO_x continuous emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved in writing by the Air Compliance Manager, Northern Regional Office and EPA, or Reference Method 19, to provide, as necessary, valid emissions data for a minimum of 75 percent of the hours per day for 90 percent of the days per calendar quarter each MWC unit is operated and combusting MSW.

    Whenever a NOx CEMS continuous emission monitor is malfunctioning or will be out of service for calibration, maintenance or repair for a period of twenty four hours or more, surrogate compliance monitoring of the following parameters may be implemented with approval of the DEQ until such time as the emission monitor is back in operation.

    For the nitrogen oxide monitors, the permittee shall maintain ammonia flow at the rate at which it was being fed prior to the malfunction or out of service period and will record the ammonia feed rate twice per hour.
(9 VAC 5-80-110 and 9 VAC 5-40-8140 G)

49. **MWC Monitoring** – The permittee shall operate the NOx CEMS according to Performance Specification 2 in Appendix B of 40 CFR 60 and shall follow the procedures and methods below.

    a. During each relative accuracy test run of the CEMS required by Performance Specification 2 in Appendix B of 40 CFR 60, NOx 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 below.

        (i) For NOx, Reference Methods 7, 7A, 7C, 7D or 7E shall be used.

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

    b. The span value of the CEMS shall be 125 percent of the maximum estimated hourly potential NOx emissions of the MWC unit.

    (9 VAC 5-80-110 and 9 VAC 5-40-8140 G)

50. **MWC Monitoring** – Quarterly accuracy determinations and daily calibration drift tests for the NOx CEMS shall be performed in accordance with Procedure 1 in Appendix F of 40 CFR 60.
    (9 VAC 5-80-110 and 9 VAC 5-40-8140 G)

51. **MWC Monitoring** – The permittee shall install, calibrate, maintain, and operate a CEMS for measuring CO at the combustor outlet or in the exhaust stack and record the output of the system.
    (9 VAC 5-80-110, 9 VAC 5-40-8150 C. and Condition 15 of 1/12/87 PSD Permit)

52. **MWC Monitoring** – Compliance with the CO emissions limit in Condition 13 shall be determined by using the CEMS specified in Condition 51 based on a 4-hour block arithmetic average. The 4-hour block arithmetic average 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.
    (9 VAC 5-40-8150 C)

53. **MWC Monitoring** – At a minimum, valid CO CEMS hourly emissions averages shall be obtained as specified below for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that each MWC unit is combusting MSW.

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

    b. Each CO 1-hour arithmetic average shall be corrected to 7 percent O2 on an hourly basis using the 1-hour arithmetic average of the O2 (or CO2) CEMS data.

    (9 VAC 5-80-110 and 9 VAC 5-40-8150 C)

54. **MWC Monitoring** – All valid CO CEMS date must be used in calculating emission averages even if the minimum CEMS data requirements of Condition 53 are not met. (9 VAC 5-40-8150 C)

55. **MWC Monitoring** – When carbon monoxide continuous emission data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems, as approved in writing by the Regional Air Compliance Manager, Northern Regional Office and EPA, or Reference Method 10 to provide, as necessary, the minimum valid emission data.
    (9 VAC 5-80-110 and 9 VAC 5-40-8150 C)

56. **MWC Monitoring** – The permittee shall operate the CO CEMS according to Performance Specification 4A in Appendix B of 40 CFR 60 and shall follow the procedures and methods below:

    a. During each relative accuracy test run of the CEMS performed in accordance with Performance Specification 4A, CO and O_2 (or CO_2) data shall be collected concurrently (or within a 30- to 60-minute period) by both the CEMS and the test methods specified below:

        (i) For carbon monoxide, Reference Method 10, 10A, or 10B.

        (ii) For oxygen (or carbon dioxide), Reference Method 3, 3A, or 3B, as applicable.

    b. The span value of the CO CEMS shall be 125 percent of the maximum estimated hourly potential CO emissions of the each MWC unit.

    (9 VAC 5-80-110 and 9 VAC 5-40-8150 C)

57. **MWC Monitoring** – Quarterly accuracy determinations and daily calibration drift tests for the CO CEMS shall be performed in accordance with Procedure 1 in Appendix F of 40 CFR 60.
(9 VAC 5-80-110 and 9 VAC 5-40-8150 C)

58. **MWC Recordkeeping** – The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Air Compliance Manager, Northern Regional Office. These records shall include, but are not limited to; those provided in Conditions 59 through 66 below and shall include the calendar date for each record. The records shall be maintained onsite in either paper copy or computer-readable format, unless the Air Compliance Manger approves an alternative format, and shall be available on-site for inspection by DEQ for a period of at least five years.
(9 VAC 5-80-110, 9 VAC 5-40-8160 B, 9 VAC 5-40-8160 B.1., 9 VAC 5-40-8160 H and Condition 7 of Part II of 1/12/87 PSD Permit)

59. **MWC Recordkeeping** – The permittee shall record the emission concentrations, parameter data and calculated emission rates measured and determined as specified below:

    a. All 6-minute block average opacity levels as specified in Condition 30.

    b. All 1-hour average SO_2 emission concentrations as specified in Condition 37.

    c. All 1-hour average NOx emission concentrations as specified in Condition 45.

    d. All 1-hour average CO emission concentrations as specified in Condition 52.

    e. All 24-hour daily geometric average SO_2 emission concentrations and all 24-hour daily geometric average percent reductions in SO2 emissions as specified in Condition 37.

    f. All 24-hour daily arithmetic average NOx emission concentrations as specified in Condition 45.

    g. All 4-hour block or 24-hour daily arithmetic average CO emission concentrations as specified in Condition 52.

    h. All 4-hour block arithmetic average MWC unit load levels and fabric filter inlet temperatures as specified in Condition 9.

    (9 VAC 5-80-110 and 9 VAC 5-40-8160 B)

60. **MWC Recordkeeping** – The permittee shall record each occurrence:

    a. Each calendar date for which the minimum number of hours of any of the data specified in subsections (i) through (v) of this condition have not been obtained including reasons for not obtaining sufficient data and a description of corrective actions taken.
        (i) Sulfur dioxide emissions data;
        (ii) Nitrogen oxides emissions data;
        (iii) Carbon monoxide emissions data;
        (iv) Municipal waste combustor unit load data; and
        (v) Particulate matter control device temperature data.

    b. The SO_2 emissions data, NO_x emissions data, or operational data (i.e., CO emissions, unit load, and fabric filter baghouse inlet temperature) that have been excluded from the calculation of average emission concentrations or parameters, and the reasons for excluding the data.

    (9 VAC 5-80-110 and 9 VAC 5-40-8160 B.5 & B.6)

61. **MWC Recordkeeping** – The permittee shall record the results of daily drift tests and quarterly accuracy determinations for SO_2, NO_x, and CO CEMS, as required under Appendix F of 40 CFR 60, Procedure 1.
    (9 VAC 5-80-110 and 9 VAC 5-40-8160 B)

62. **MWC Recordkeeping** – The test reports documenting the results of all annual performance tests listed below, shall be recorded along with supporting calculations.

    a. The results of all annual performance tests conducted to determine compliance with the particulate matter, opacity, beryllium, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, hydrogen fluoride, sulfuric acid and fugitive ash emission limits.

    b. For all dioxin/furan performance tests, the maximum demonstrated MWC unit load and maximum demonstrated fabric filter baghouse inlet temperature (for each fabric filter baghouse) shall be recorded.

    (9 VAC 5-80-110 and 9 VAC 5-40-8160 B)

63. **MWC Recordkeeping** – The permittee shall record the following data related to the activated carbon injection system.

    a. The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated as required in Condition 27 during all annual performance tests for mercury

emissions, with supporting calculations. The average carbon mass feed rate shall be based on an 8-hour average.

b. The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated for each hour of operation as required in Condition 28, with supporting calculations.

c. The total carbon usage for each calendar quarter estimated as specified in Condition 28, with supporting calculations.

d. Carbon injection system operating parameter data for the parameter(s) that are the primary indicator(s) of carbon feed rate (e.g., gravimetric feed rate) as specified in Condition 27.

(9 VAC 5-80-110 and 9 VAC 5-40-8160 B)

64. **MWC Recordkeeping** – The permittee shall record the calendar dates and parameter data when the average carbon mass feed rates were less than the hourly carbon feed rates estimated during performance tests for mercury, with reasons for such feed rates and a description of corrective actions taken.
(9 VAC 5-80-110 and 9 VAC 5-40-8160 B)

65. **MWC Recordkeeping** – The permittee shall record the calendar dates and parameter data when the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate (e.g. gravimetric feed rate) are below the level(s) estimated during the performance tests, with reasons for such occurrences and a description of corrective actions taken.
(9 VAC 5-80-110 and 9 VAC 5-40-8160 B)

66. **MWC Recordkeeping** – The permittee shall record and maintain records of the hours of operation of each MWC unit and refuse combusted by each MWC unit.
(9 VAC 5-80-110, 40 CFR 60.53 and Condition 18 of 1/12/87 PSD Permit)

67. **MWC Testing** – In order to facilitate continuing compliance assessments, the permitted facility shall be constructed so as to allow for safe emissions testing and monitoring upon reasonable notice at any time, using appropriate methods. Test ports shall be provided when requested at the appropriate locations in accordance with the applicable performance specifications and test methods (reference 40 CFR Part 60, Appendix B).
(9 VAC 5-80-110 and Condition 12 of 1/12/87 PSD Permit)

68. **MWC Testing** – The procedures and test methods presented in the Conditions 70 through 84 shall be used to demonstrate compliance with the emission standards provided in Conditions 13 and emission limits in Conditions 15 through 18 for particulate matter, cadmium, mercury, lead, hydrogen chloride, dioxin/furan, hydrogen fluoride, sulfuric acid mist, opacity and fugitive ash following the provisions of 40 CFR 60.8, with the exception of Paragraph (a).
(9 VAC 5-80-110, 9 VAC 5-40-8140 A. and 40 CFR 60.8)

69. **MWC Testing** – The permittee shall submit a test protocol at least thirty days prior to the testing required in Conditions 70 through 80. The protocol(s) may contain notification and information related to one or more performance tests. Results of tests shall be reported and data reduced as set forth in 9 VAC 5-50-30. The details of the tests are to be arranged with the Air Compliance Manager, Northern Regional Office. Two copies (one paper copy, and one on removable electronic media) of the test results shall be submitted to the Air Compliance Manager, Northern Regional Office within sixty days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-80-110, 9 VAC 5-50-30 and Condition 14 of 1/12/87 PSD Permit)

70. **MWC Testing** – The permittee shall conduct an emission test for particulate matter from each MWC each calendar year (no more than 12 calendar months following the previous emission test) to demonstrate compliance with the emission standard in Condition 13 and emission limit in Condition 15 using the test methods and procedures provided below:

    a. Reference Method 1 shall be used to select sampling site and number of traverse points.

    b. Reference Method 3, 3A, or 3B, as applicable, shall be used for gas analysis.

    c. Reference Method 5 shall be used for determining compliance with the particulate matter emission standard contained in Condition 13 and emission limit in Condition 15. The minimum sample volume shall be 1.7 cubic meters. The probe and filter holder heating systems in the sample train shall be set to provide a gas temperature no greater than 160 +/- 14 °C. An O2 or CO2 measurement shall be obtained simultaneously with each Reference Method 5 run.

    d. As specified in 9 VAC 5-40-30, all performance tests shall consist of three test runs. The average of the particulate matter emission concentrations from the three test runs, one of which shall include normal soot-blowing operations, shall be used to determine compliance.

    (9 VAC 5-80-110, 9 VAC 5-40-8140 B. and Condition 13 of 1/12/87 PSD Permit)

71. **MWC Testing** – The permittee shall conduct an emission test for opacity from each MWC each calendar year (no more than 12 calendar months following the previous emission test) using Reference Method 9 to demonstrate compliance with the emission limit in Condition 17.
(9 VAC 5-80-110, 9 VAC 5-40-8140 B. and Condition 13 of 1/12/87 PSD Permit)

72. **MWC Testing** – The permittee shall conduct emissions tests for cadmium and lead from each MWC each calendar year (no more than 12 calendar months following the previous emission test) to demonstrate compliance with the emission standards in Condition 13 and emission limits in Conditions 15 and 16 using the test methods and procedures provided below:

    a. Reference Method 1 shall be used for determining the location and number of sampling points.

    b. Reference Method 3, 3A, or 3B, as applicable, shall be used for flue gas analysis.

    c. Reference Method 29 shall be used for determining compliance with the cadmium and lead emission standards and limits.

    d. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Reference Method 29 test run for cadmium and lead.

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

    (9 VAC 5-80-110, 9 VAC 5-40-8140 C. and Condition 13 of 1/12/87 PSD Permit)

73. **MWC Testing** – The permittee shall conduct an emission test for mercury from each MWC each calendar year (no more than 12 calendar months following the previous emission test) to demonstrate compliance with the emission standard in Conditions 13 and emission limit in Condition 16 using the test methods and procedures provided below:

    a. Reference Method 1 shall be used for determining the location and number of sampling points.

    b. Reference Method 3, 3A, or 3B, as applicable, shall be used for flue gas analysis.

    c. Reference Method 29 shall be used to determine the mercury emission concentration. The minimum sample volume when using Reference Method 29 for mercury shall be

1.7 cubic meters.

d. An O2 (or CO2) measurement shall be obtained simultaneously with each Reference Method 29 test run for mercury.

e. The percent reduction in the potential mercury emissions ($\%P_{Hg}$) is computed using the following equation:

$$(\%PHg) = \left(\frac{Ei - Eo}{Ei}\right) x\, 100$$

where:

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

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

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

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

(9 VAC 5-80-110, 9 VAC 5-40-8140 C. and Condition 13 of 1/12/87 PSD Permit)

74. **MWC Testing** – The permittee shall conduct and emission test for hydrogen chloride from each MWC each calendar year (no more than 12 calendar months following the previous emission test) to demonstrate compliance with the hydrogen chloride emission standard in Condition 13 and emission limit in Condition 16 using the test methods and procedures provided below:

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

b. An O2 (or CO2) measurement shall be obtained simultaneously with each Reference Method 26 test run for hydrogen chloride.

c. The percent reduction in potential hydrogen chloride emissions (% P_{HCl}) is computed using the following equation:

$$(\%PHCl) = \left(\frac{Ei - Eo}{Ei}\right) x\ 100$$

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

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

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

d. All performance tests shall consist of three test runs under representative full load operating conditions. The average of the hydrogen chloride emission concentrations or percent reductions from the three test runs shall be used to demonstrate compliance.

(9 VAC 5-40-8140 E., 9 VAC 5-80-1180 and Condition 13 of 1/12/87 PSD Permit)

75. **MWC Testing** – The permittee shall conduct an emission test for dioxin/furan each calendar year (no more than 12 calendar months following the previous emission test) to demonstrate compliance with the emission standard in Condition 13 and emission limit in Condition 16 using the test methods and procedures provided below:

a. Reference Method 1 shall be used for determining the location and number of sampling points.

b. Reference Method 3, 3A, or 3B, as applicable, shall be used for flue gas analysis.

c. Reference Method 23 shall be used for determining the dioxin/furan emission concentration.

d. The minimum sample time shall be 4 hours per test run.

e. All performance tests shall consist of three test runs under representative full load operating conditions. The average of the dioxin/furan emission concentrations from the three test runs is used to demonstrate compliance.

f. An O2 (or CO2) measurement shall be obtained simultaneously with each Reference Method 23 test run for dioxin/furan.

(9 VAC 5-80-110, 9 VAC 5-40-8140 F. and Condition 13 of 1/12/87 PSD Permit)

76. **MWC Testing** – The permittee may elect to conduct annual performance tests for only one MWC unit per year when performance tests over the previous 2-year period indicate that dioxin/furan emissions are less than or equal to 15 nanograms per dry standard cubic meter (total mass) corrected to 7 percent O_2 for all MWC units. At a minimum, a performance test for dioxin/furan emissions shall be conducted annually (no more than 12 months following the previous performance test) for one MWC unit. Each year, one MWC unit shall be tested, and the other MWC units shall be tested in sequence (e.g., unit 1, unit 2, unit 3 and unit 4, as applicable) in the following years. If each annual performance test continues to indicate a dioxin/furan emission level less than or equal to 15 nanograms per dry standard cubic meter (total mass) corrected to 7 percent O_2, the permittee may continue conducting a performance test on only one MWC per year. If any annual performance test indicates a dioxin/furan emission level greater than 15 nanograms per dry standard cubic meter (total mass) corrected to 7 percent O_2, performance tests thereafter shall be conducted annually on all MWC units until and unless all annual performance tests for all MWC units over a 2-year period indicate a dioxin/furan emission level less than or equal to 15 nanograms per dry standard cubic meter (total mass) corrected to 7 percent O_2.
(9 VAC 5-80-110 and 9 VAC 5-40-8140 F.5)

77. **MWC Testing** – In the event the permittee intends to follow a reduced dioxin/furan testing schedule, notification of the intent to reduce the testing schedule shall be provided in the report required in Condition 81.
(9 VAC 5-80-110 and 9 VAC 5-40-8140 F)

78. **MWC Testing** – The permittee shall conduct emission tests for hydrogen fluoride and sulfuric acid from each MWC each calendar year (no more than 12 calendar months following the previous emission test) to demonstrate compliance with the emission limits in Condition 16 using appropriate test methods and procedures.
(9 VAC 5-80-110 and Condition 13 of 1/12/87 PSD Permit)

79. **MWC Testing** – The permittee shall conduct an emission test for fugitive ash on an annual basis (no more than 12 calendar months following the previous emission test) to demonstrate compliance with the emission limits in Condition 18 using the test methods

and procedures provided below:

a. Reference Method 22 shall be used for determining compliance with the fugitive ash emission limit. 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 MWC unit to the area where ash is stored or loaded into containers or trucks.

b. 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 the fugitive ash emission limit.

(9 VAC 5-80-110 and 9 VAC 5-40-8140 H)

80. **MWC Testing** – If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
VOC	EPA Methods 18, 25, 25a
NO_x	EPA Method 7
SO_2	EPA Method 6
CO	EPA Method 10
Hydrogen Fluoride	EPA Method 26
Sulfuric Acid Mist	EPA Method 8

The table above is only required for those pollutants that have emission limits.
(9 VAC 5-80-110)

81. **MWC Reporting** – The permittee shall submit a semi-annual report including the information specified below, as applicable, according to the schedule provided in Condition 83. The time periods covering each semi-annual period shall be January 1st through June 30th and July 1st through December 31st.

a. A summary of data collected for all pollutants and parameters regulated under Rule 4-54 and this permit, including the information specified below:

(i) A list of the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, hydrogen fluoride, sulfuric acid mist and fugitive ash emission levels achieved during the performance tests recorded under

Conditions 70-80.

(ii) A list of the highest emission level recorded for 24-hr SO_2, 24-hr NO_x, 4-hr CO, 4-hr MWC unit load level, and 4-hr fabric filter baghouse inlet temperature based on the data recorded under Condition 59.

(iii) List the highest opacity level measured based on the data recorded under Condition 59.

(iv) The total number of days that the minimum number of hours of data for SO_2, NO_x, CO, MWC unit load and fabric filter baghouse inlet temperature data were not obtained based on the data recorded under Condition 60.

(v) The total number of hours that data for SO_2, NO_x, CO, MWC unit load and fabric filter baghouse inlet temperature were excluded from the calculation of average emission concentrations or parameters based on the data recorded under Condition 60.

b. The summary of data reported under a above shall also provide the same types of data for the calendar year proceeding the year being reported, in order to provide a summary of performance over a two year period.

c. The summary of data in a. and b. above shall highlight any emission or parameter levels that did not achieve the emission or parameter limits specified in Article 54 and this permit.

d. A notification of intent to begin the reduced dioxin/furan performance testing schedule specified in Condition 76 during the following calendar year.

(9 VAC 5-80-110 and 9 VAC 5-40 8160 D)

82. **MWC Reporting** – The permittee shall submit a semi-annual report which includes the information specified below for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit specified under Article 54 and this permit, according to the schedule specified in Condition 83. The time periods covering each semi-annual period shall be January 1st through June 30th and July 1st through December 31st.

a. Data concerning exceedances of SO2, NOx, and CO emission standards, MWC unit load level, and fabric filter baghouse inlet temperature, and opacity limits recorded under Condition 59 and 60.

b. If the test reports document any NOx, CO, particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission levels that were above the applicable pollutant limits, include a copy of the test report or portion of that report documenting the emission levels and the corrective actions taken.

c. Data recorded under Conditions 64 and 65 for the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate.

(9 VAC 5-80-110 and 9 VAC 5-40-8160 E)

83. **MWC Reporting** – The permittee shall submit the data reports required in Conditions 81 and 82 no later than March 1st and September 1st of each year following the semiannual period in which the data were collected.
(9 VAC 5-80-110, 9 VAC 5-40-8160 D. and 9 VAC 5-40-8160 E)

84. **MWC Reporting** – All reports identified under Conditions 81 and 82 shall be submitted as a paper copy, postmarked on or before the submittal dates specified, and maintained on-site as paper copies for a period of five years.
(9 VAC 5-80-110 and 9 VAC 5-40-8160 G)

85. **MWC Reporting** – The permittee may request an alternative reporting schedule by submitting a written request to the Air Compliance Manager, Northern Regional Office. An alternative schedule may only begin after the permittee has received written authorization by the Department.
(9 VAC 5-80-110 and 9 VAC 5-40-8160 I)

86. **MWC Reporting** – The permittee shall submit a written report of excess emissions and either a monitoring systems performance report or summary report form, or both, in accordance with 40 CFR 60.7 (c), to the Air Compliance Manager, Northern Regional Office. The reports shall cover each calendar quarter and be postmarked by the 30th day following the end of each calendar quarter. The reports shall include the following information:

a. The magnitude of excess emissions computed in accordance with 9 VAC 5-40-41 B.6., any conversion factors used, and the date and time of commencement and completion of each period of excess emissions;

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

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

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

(9 VAC 5-80-110 and 40 CFR 60.7(c))

Cold Solvent Degreasing

These requirements in Conditions 87 through 91 apply to the use of cold cleaning machines that process metal parts and contain more than 1 liter of volatile organic compounds.

87. **Limitations** – Immersion cold cleaning machines shall have a freeboard ratio of 0.75 or greater unless the machines are equipped with a cover that are kept closed except when parts are being placed into or being removed from the machines.
(9 VAC 5-80-110 and 9 VAC 5-40-6840 A.)

88. **Limitations** – Immersion cold cleaning machines and remote reservoir cold cleaning machines shall:

    a. Have a permanent, conspicuous label summarizing the operating requirements in Condition 89.

    b. Be equipped with a cover that shall be closed at all times except during cleaning of parts or the addition or removal of solvent. For remote reservoir cold cleaning machines which drain directly into the solvent storage reservoir, a perforated drain with a diameter of not more than six inches shall constitute an acceptable cover.

    (9 VAC 5-80-110 and 9 VAC 5-40-6840 A)

89. **Limitations** – Cold cleaning machines shall be operated in accordance with the following procedures:

    a. Waste solvent shall be collected and stored in closed containers. The closed containers may contain a device that allows pressure relief, but does not allow liquid solvent to drain from the container.

b. Cleaned parts shall be drained at least 15 seconds or until dripping ceases, whichever is longer. Parts having cavities or blind holes shall be tipped or rotated while the part is draining. During the draining, tipping or rotating, the parts shall be positioned so that solvent drains directly back to the cold cleaning machine.

c. Flushing or parts using a flexible hose or other flushing device shall be performed only within the freeboard area of the cold cleaning machine. The solvent spray shall be a solid fluid stream, not an atomized or shower spray.

d. When the cover is open, the cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute (132 feet per minute), as measured between one and two meters (3.3 and 6.6 feet) upwind and at the same elevation as the tank lip.

e. Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in cold cleaning machines.

f. When a pump-agitated solvent bath is used, the agitator shall be operated to produce a rolling motion of the solvent with no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used.

g. Spills during solvent transfer and use of the cold cleaning machine shall be cleaned up immediately, and the wipe rags or other sorbent material shall be immediately stored in covered containers for disposal or recycling.

h. Work area fans shall be located and positioned so that they do not blow across the opening of the degreaser unit.

i. The permittee shall ensure that the solvent level does not exceed the fill line.

(9 VAC 5-80-110 and 9 VAC 5-40-6840 A)

90. **Limitations** – The permittee shall not use, sell, or offer for sale use in a cold cleaning machine any solvent with a vapor pressure of 1.0 millimeters of mercury (mm Hg) or greater, measured at 20 °C (68 °F) containing volatile organic compounds.
(9 VAC 5-80-110 and 9 VAC 5-40-6840 A.)

91. **Limitations** – The permittee shall maintain for not less than two years and shall provide to DEQ personnel, upon request, the information specified below. An invoice, bill of sale, certificate that corresponds to a number of sales, Material Safety Data Sheet, or other appropriate documentation acceptable to the Regional Air Compliance Manager, Northern

Regional Office, may be used to comply with this section.

a. The name and address of the solvent supplier.

b. The type of solvent including the product or vendor identification number.

c. The vapor pressure of the solvent measured in mm Hg at 20 ° C (68 °F).

(9 VAC 5-80-110 and 9 VAC 5-40-6840 A)

Facility Wide Conditions

92. **MWC Operator Training/Certification** – Each chief facility operator and shift supervisor shall obtain and maintain a current provisional operator training certification from the American Society of Mechanical Engineers as provided in the "Standard for the Qualification and Certification of Resource Recovery Facility Operators" (see 9 VAC 5-20-21) or a board-approved certification program, or shall have completed full certification or scheduled a full certification exam with either the American Society of Mechanical Engineers as provided in the "Standard for the Qualification and Certification of Resource Recovery Facility Operators" (see 9 VAC 5-20-21) or a board-approved certification program. The board-approved certification requirement may be met by obtaining a license from the Board of Waste Management Facility Operators provided the training and licensing is conducted in accordance with Chapter 22.1 (§54.1-2209 et seq.) of Title 54.1 of the Code of Virginia, and with 18VAC155 Chapter 20. Chief facility operators and shift supervisors who receive full certification will no longer be required to maintain provisional certification.
(9 VAC 5-80-110, 9 VAC 5-40-8130 A., 9 VAC 5-40-8130 B., 9 VAC 5-40-8130 I)

93. **MWC Operator Training/Certification** – The permittee shall ensure that the facility is operated at all times with a person on duty who is responsible for the proper operation of the facility and has a license from the Board for Waste Management Facility Operators in the correct classification.
(9 VAC 5-80-110 and 9 VAC 5-40-8130 C)

94. **MWC Operator Training/Certification** – The permittee shall ensure that a fully certified chief facility operator or a fully certified shift supervisor, or provisionally certified chief facility operator or shift supervisor who is scheduled to take the full certification exam, staffs the facility at any time the facility is operated. A provisionally certified control room operator or provisionally certified shift supervisor may temporarily stand in for up to twelve consecutive without any notification to DEQ. A provisionally certified control

room operator or provisionally certified shift supervisor may stand in for up to two consecutive weeks and shall notify the Regional Air Compliance Manager, Northern Regional Office in writing within five business days of the beginning of the stand-in period. A provisionally certified control room operator or provisionally certified shift supervisor may stand in for periods longer than two consecutive weeks if the permittee follows the notification procedures above and demonstrates to DEQ that a good faith effort is being made to ensure that a certified chief facility operator or certified shift supervisor is on site as soon as practicable.
(9 VAC 5-80-110, 9 VAC 5-40-8130 D. and John Seitz memorandum "Municipal Waste Combustor – Control Room Operator stand-in Provisions dated 5/14/1998)

95. **MWC Operator Training/Certification** – All chief facility operators, shift supervisors, and control room operators must complete the board-approved MWC operator training course. This requirement does not apply to chief facility operators, shift supervisors, and control room operators who have obtained full certification from the American Society of Mechanical Engineers prior to August 4, 1999. The permittee may request that the board waive this requirement for chief facility operators, shift supervisors, and control room operators who have obtained provisional certification from the American Society of Mechanical Engineers prior to August 4, 1999.
(9 VAC 5-80-110, 9 VAC 5-40-8110 B. and 9 VAC 5-40-8130 E)

96. **MWC Operator Training/Certification** – The permittee shall develop and update on a yearly basis a site-specific operating manual that shall, at a minimum, address the elements of MWC unit operation specified as follows:

    a. A summary of the applicable standards under this permit;

    b. A description of basic combustion theory applicable to a MWC unit;

    c. Procedures for receiving, handling, and feeding municipal solid waste;

    d. MWC unit startup, shutdown, and malfunction procedures;

    e. Procedures for maintaining proper combustion air supply levels;

    f. Procedures for operating the MWC unit within the standards established under this permit;

    g. Procedures for responding to periodic upset or off-specification conditions;

h. Procedures for minimizing particulate matter carryover;

i. Procedures for handling ash;

j. Procedures for monitoring MWC unit emissions;

k. Operating procedures for all air pollution control equipment;

l. Annual maintenance schedule for air pollution control equipment;

m. Reporting and record keeping procedures.

(9 VAC 5-80-110, 9 VAC 5-40-8130 F. and Part II Condition 9 of 1/12/87 PSD permit)

97. **MWC Operator Training/Certification** – The permittee shall establish a training program to review the operating manual annually with each person who has responsibilities affecting operation of the facility. This includes, but is not limited to, chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers.
(9 VAC 5-80-110 and 9 VAC 5-40-8130 G)

98. **MWC Operator Training/Certification** – The operating manual shall be in a location which is readily accessible to all persons required to undergo training. The operating manual and records of training shall be available for inspection by DEQ upon request.
(9 VAC 5-80-110 and 9 VAC 5-40-8130 H)

99. **MWC Operator Training/Certification** – All air pollution control equipment operators shall be trained and certified in the proper operation of all such equipment. Certification shall consist of a statement of time, place and nature of training provided.
(9 VAC 5-80-110 and Part II Condition 8 of 1/12/87 PSD permit)

100. **MWC Operator Training/Certification** – The permittee shall maintain the following records:

a. Records showing the names of the MWC chief facility operator, shift supervisors, and control room operators who have been provisionally certified by the American Society of Mechanical Engineers or an equivalent board-approved certification program as required by Condition 1 including the dates of initial and renewal certifications and documentation of current certification.

b. Records showing the names of the MWC chief facility operator, shift supervisors, and control room operators who have completed the EPA MWC operator training course or a board-approved equivalent course as required by Condition 4 including documentation of training completion.

c. Air pollution control equipment operator training required in Condition 99.

(9 VAC 5-80-110, 9 VAC 5-40-8160 B. and Part II Condition 8 of 1/12/87 PSD permit)

101. **MWC Operator Training/Certification** – The permittee shall record the names of persons who have completed a review of the operating manual as required by Condition 5 including the date of the initial review and subsequent annual reviews.
(9 VAC 5-80-110 and 9 VAC 5-40-8160 B)

102. **Emergency Diesel Engine Generator (IU-10) Limitations** – Except where this permit is more restrictive than the applicable requirement, the emergency diesel engine generator (IU-10) shall be operated in compliance with the requirements of 40 CFR 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines and 40 CFR 63, Subpart A – General Provisions.
(9 VAC 5-80-110 A, 40 CFR §63.6665, Table 8 of 40 CFR 63, Subpart ZZZZ, and 40 CFR 63, Subpart A)

103. **Emergency Diesel Engine Generator (IU-10) Limitations** – For the emergency diesel engine generator (IU-10), the permittee shall:

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

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

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

Note 1: Sources have the option to utilize an oil analysis program as described in 40 CFR §63.6625 (i) or (j) in order to extend the specified oil change requirement in Condition 103.a
(Table 2c of 40 CFR 63, Subpart ZZZZ).

Note 2: If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in this Permit Condition (Table 2c of 40 CFR 63, Subpart ZZZZ), or if performing the work practice on the required schedule would otherwise pose an unacceptable risk

under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

(9 VAC 5-80-110 A, 40 CFR §63.6603(a), 40 CFR §63.6640 and Table 2c of 40 CFR 63 Subpart ZZZZ)

104. **Emergency Diesel Engine Generator (IU-10) Limitations** – In order for the emergency generator (IU-10) to be considered an emergency stationary reciprocating internal combustion engine (RICE) under 40 CFR 63, Subpart ZZZZ, the operation of the emergency generator (IU-10) is limited to emergency situations as specified in 40 CFR §63.6640(f)(1); maintenance checks and readiness testing for a limited number of hours per year as specified in 40 CFR §63.6640(f)(2)(i); and certain non-emergency situations for a limited number of hours per year as specified in 40 CFR §63.6640(f)(3). If the unit is not operated in accordance with 40 CFR §63.6640(f)(1), §63.6640(f)(2)(i) or §63.6640(f)(3), the emergency generator (IU-10) will not be considered an emergency engine under 40 CFR Part 63, Subpart ZZZZ and must meet the emissions standards and other applicable requirements for a non-emergency engine.
(9 VAC 5-80-110 A and 40 CFR §63.6640 (f))

105. **Emergency Diesel Engine Generator (IU-10) Limitations** – During periods of startup, the permittee shall minimize the time spent at idle for the emergency generator (IU-10) and minimize the generator's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emissions limitations apply.
(9 VAC 5-80-110 A and 40 CFR 63.6625 (h))

106. **Emergency Diesel Engine Generator (IU-10) Limitations** – The permittee shall:

    a. Operate and maintain the emergency generator (IU-10) according to the manufacturer's emission-related written operation and maintenance instructions; or

    b. Develop and follow its own maintenance plan which must provide to the extent practicable for the maintenance and operation of the emergency generator (IU-10) in a manner consistent with good air pollution control practice for minimizing emissions.

(9 VAC 5-80-110 A, 40 CFR §63.6625(e), 40 CFR 63.6640(a) and Table 6 of 40 CFR 63 Subpart ZZZZ)

107. **Emergency Diesel Engine Generator (IU-10) Monitoring** – The permittee shall install a non-resettable hour meter on the emergency generator (IU-10) if one is not already installed.

(9 VAC 5-80-110 A and 40 CFR §63.6625(f))

108. **Emergency Diesel Engine Generator (IU-10) Recordkeeping** – The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the DEQ. These records shall include but are not limited to:

    a. Records of the maintenance conducted on the emergency generator (IU-10) in order to demonstrate that the engine is operated and maintained according to the maintenance plan required by Condition 106.

    b. Records of the hours of operation of the emergency generator (IU-10) that are recorded on a non-resettable hour meter. The permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency, and how many hours are spent for non-emergency operation, including what classified the operation as non-emergency.

    These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
    (9 VAC 5-80-110 A and 40 CFR 63.6655)

109. **Emergency Diesel Engine Generator (IU-10) Notifications** – The permittee shall meet the applicable notification requirements in §63.6645 and in 40 CFR 63, Subpart A as they pertain to the emergency generator (IU-10).
    (9 VAC 5-80-110 and 40 CFR 63.6595(c))

110. **Emergency Diesel Engine Generator (IU-10) Reporting** – The permittee shall submit the applicable compliance report in Subpart ZZZZ Table 7 per §63.6650(a). The report shall contain the information required by Table 7, §63.6650(c), (e), and (f), and submitted per the schedule required by §63.6650(b).

    Copies of the compliance reports shall be submitted to the Regional Air Compliance Manager of the DEQ's NRO.
    (9 VAC 5-80-110 and 40 CFR 63.6650)

Insignificant Emission Units

111. **Insignificant Emission Units** - The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation (9 VAC 5-80-720)	Pollutant(s) Emitted (9 VAC 5-80-720B)	Rated Capacity (9 VAC 5-80-720C)
IU-1a	Fuel Oil UST	720 B	VOC	500 gallons
IU-1b	Fuel Oil AST	720 B	VOC	1000 gallons
IU-2	MSW Building/Pit	720 B	PM and PM10	N/A
IU-3	Non-ferrous Ash Bldg	720 B	PM and PM10	N/A
IU-4	Residue Ash Bldg	720 B	PM and PM10	N/A
IU-5	Lime Slaker Room	720 B	PM and PM10	N/A
IU-6	Ash Removal	720 B	PM and PM10	N/A
IU-7	Grizzly Scalper	720 B	PM and PM10	N/A
IU-8	Hydraulic Shredder (in MSW Bldg.)	720 B	PM and PM10	N/A
IU-9	HVAC Boiler	720 C	PM, PM10, SO2, NOx, CO & VOCs	0.55 MMBtu/hr (heat input)
IU-11	Lime Storage Silo Vent	720 B	PM and PM10	N/A
IU-12	Dolomitic Lime Silo Vent	720 B	PM and PM10	N/A
IU-13	Carbon Silo Vent	720 B	PM and PM10	N/A
IU-14	Pebble Lime Silo Vent	720 B	PM and PM10	5,089 ft^3 (storage capacity)
IU-15	Used Oil Heater	720 B	PM10, SO2, NOx, CO, VOCs & Lead	175,000 Btu/hr (heat input)

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110. (9 VAC 5-80-720 and 9 VAC 5-80-110 C, E, and F)

Permit Shield & Inapplicable Requirements

112. **Permit Shield & Inapplicable Requirements** - Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
NSPS Subpart Db (40 CFR Part 60)	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units	Covanta is exempt from this since it is covered by an EPA approved State section 111(d)/129 implementing Subpart Cb.
40 CFR Part 63, Subpart T – 40 CFR Subpart 63.460 – 63.471 and appendices	National Emission Standards for Halogenated Solvent Cleaning for the degreasing operation	Covanta is exempt from this since it does not use halogenated solvents in any of the parts washer
40 CFR 97 Subparts AAAAA-CCCCC	Cross-State Air Pollution Rule	The facility has two steam turbines, each rated at more than 25 MWe; however, each of the MWC units qualifies as a solid waste incineration unit with an average annual fuel consumption of fossil fuel of less than 20 percent (on a Btu basis) for any 3 consecutive calendar years.
40 CFR 63 Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial and Institutional Boilers and Process Heaters	40 CFR §63.7491(l) excludes boilers specifically listed as an affected source in any standard(s) established under §129 of the Clean Air Act. Covanta's MWC units are subject to 9 VAC 5-40-7950 et seq. which implements 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), which was developed by EPA under sections 111 and 129 of the Clean Air Act.

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.
(9 VAC 5-80-140)

General Conditions

113. **Federal Enforceability** – All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9 VAC 5-80-110 N)

114. **Permit Expiration** – This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the DEQ consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

115. **Permit Expiration** – The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

116. **Permit Expiration** – If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

117. **Permit Expiration** – No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

118. **Permit Expiration** – If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC

5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

119. **Permit Expiration** – The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.
(9 VAC 5-80-80 B, C, and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

120. **Recordkeeping and Reporting** – All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

    a. The date, place as defined in the permit, and time of sampling or measurements.

    b. The date(s) analyses were performed.

    c. The company or entity that performed the analyses.

    d. The analytical techniques or methods used.

    e. The results of such analyses.

    f. The operating conditions existing at the time of sampling or measurement.

    (9 VAC 5-80-110 F)

121. **Recordkeeping and Reporting** – Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
(9 VAC 5-80-110 F)

122. **Recordkeeping and Reporting** – The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

    a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.

    b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:

        i. Exceedance of emissions limitations or operational restrictions;

ii. Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,

iii. Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

(9 VAC 5-80-110 F)

123. **Annual Compliance Certification** – Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

a. The time period included in the certification. The time period to be addressed is January 1 to December 31.

b. The identification of each term or condition of the permit that is the basis of the certification.

c. The compliance status.

d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.

e. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.

f. Such other facts as the permit may require to determine the compliance status of the source.

One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

R3_APD_Permits@epa.gov

(9 VAC 5-80-110 K.5)

124. **Permit Deviation Reporting** – The permittee shall notify the DEQ, within four daytime business hours after discovery, of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition 122 of this permit.
(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

125. **Failure/Malfunction Reporting** – In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the DEQ by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the DEQ.
(9 VAC 5-20-180 C)

126. **Severability** – The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110 G.1)

127. **Duty to Comply** – The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9 VAC 5-80-110 G.2)

128. **Need to Halt or Reduce Activity not a Defense** – It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-110 G.3)

129. **Permit Modification** – A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1605, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.
(9 VAC 5-80-190 and 9 VAC 5-80-260)

130. **Property Rights** – The permit does not convey any property rights of any sort, or any exclusive privilege.
(9 VAC 5-80-110 G.5)

131. **Duty to Submit Information** – The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9 VAC 5-80-110 G.6)

132. **Duty to Submit Information** – Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
(9 VAC 5-80-110 K.1)

133. **Duty to Pay Permit Fees** – The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the DEQ by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.
(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

134. **Fugitive Dust Emission Standards** – During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

    a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or similar operations;

d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-40-90 and 9 VAC 5-50-90)

135. **Startup, Shutdown, and Malfunction** – At all times, including periods of startup, shutdown, and soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9 VAC 5-50-20 E)

136. **Alternative Operating Scenarios** – Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.
(9 VAC 5-80-110 J)

137. **Inspection and Entry Requirements** – The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

d. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

138. **Reopening For Cause** – The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

a. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

c. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

139. **Permit Availability** – Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.
(9 VAC 5-80-150 E)

140. **Transfer of Permits** – No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
(9 VAC 5-80-160)

141. **Transfer of Permits** – In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

142. **Transfer of Permits** – In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

143. **Permit Revocation or Termination for Cause** – A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-190 C and 9 VAC 5-80-260)

144. **Duty to Supplement or Correct Application** – Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-80 E)

145. **Stratospheric Ozone Protection** – If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F and H.
(40 CFR Part 82, Subparts A-F and H)

146. **Asbestos Requirements** – The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).
(9 VAC 5-60-70 and 9 VAC 5-80-110 A.1)

147. **Accidental Release Prevention** – If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)

148. **Changes to Permits for Emissions Trading** – No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9 VAC 5-80-110 I)

149. **Emissions Trading** – Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

    a. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.

    b. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

    c. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

    (9 VAC 5-80-110 I)

State-Only Enforceable Requirements

150. **Tipping Floor Negative Pressure** – The permittee shall ensure that a negative pressure is maintained on the tipping floor and ensure that air from within the building is used as combustion air as means to minimize odors at the facility.
(Condition 21 of 1/12/87 PSD Permit)

151. **Standard for Odor** – The provisions of 9 VAC 5-40-130 et seq., Emission Standards for Odor, Rule 4-2, apply.
(9 VAC 5-40-8080)

152. **Standards for Toxics** – The provisions of 9 VAC 5-60-200 et seq., Emission Standards for Toxic Pollutants, Rule 6-4, apply.
(9 VAC 5-40-8090)

153. **Metals Emissions Control** – Antimony and arsenic emissions from each MWC furnace shall be controlled by fabric filter baghouses. The fabric filter baghouses shall be provided with adequate access for inspection and shall be in operation when the MWC furnaces are operating.
(Condition 9 of 1/12/87 PSD Permit)

154. **Acid Gas Control** – Hydrogen bromide emissions from each MWC furnaces shall be controlled by air pollution control equipment that will reduce emissions by a minimum of 90 percent.
(Condition 10 of 1/12/87 PSD Permit)

155. **Toxics Emission Limits**– Emissions from the operation of each MWC unit shall not exceed the limitations specified below:

Antimony	0.14 lbs/hr	0.55 tons/yr
Arsenic	7.3×10^{-3} lb/hr	0.03 tons/yr
Beryllium	2.0×10^{-4} lbs/hr	7.94×10^{-4} tons/yr
Hydrogen Bromide	1.93 lbs/hr	7.67 tons/yr

Compliance with the limits shall be determined based on compliance with control device operational parameters/limitations contained, fuel and steam restrictions, MWC operational data, results of the annual stack tests, record keeping and any other relevant information necessary which can provide credible evidence of emissions performance. Annual emissions shall be calculated on a calendar year basis.
(Condition 7 of 1/12/87 PSD Permit)

156. **Performance Tests** – The permittee shall conduct emission tests for antimony, arsenic, and hydrogen bromide each calendar year (no more than 12 calendar months following the previous emission test) to demonstrate compliance with the emission limits in Condition 155. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30. The details of the tests are to be arranged with the Air Compliance Manager, Northern Regional Office. The permittee shall submit a test protocol at least thirty days prior to testing using the "Stack Test Protocol – Request for Approval" form attached to this permit. Two copies of the test results, one paper copy and one on electronic removable media, shall be submitted to the Air Compliance Manager, Northern Regional Office within sixty days after the test completion and shall conform to the test report format enclosed with this permit.
(Condition 13 of 1/12/87 PSD Permit)

157. **Record Keeping** – The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Air Compliance Manager, Northern Regional Office. These records shall include, but are not limited to the annual emissions calculations required in Condition 155 and performance test report required in Condition 156.
(Condition 7 of Part II of 1/12/87 PSD Permit)

SOURCE TESTING REPORT FORMAT

Report Cover

1. Plant name and location
2. Units tested at source (indicate Ref. No. used by source in permit or registration)
3. Test Dates.
4. Tester; name, address and report date

Certification

1. Signed by team leader/certified observer (include certification date)
2. Signed by responsible company official
3. *Signed by reviewer

Copy of approved test protocol

Summary

1. Reason for testing
2. Test dates
3. Identification of unit tested & the maximum rated capacity
4. *For each emission unit, a table showing:
   a. Operating rate
   b. Test Methods
   c. Pollutants tested
   d. Test results for each run and the run average
   e. Pollutant standard or limit
5. Summarized process and control equipment data for each run and the average, as required by the test protocol
6. A statement that test was conducted in accordance with the test protocol or identification & discussion of deviations, including the likely impact on results
7. Any other important information

Source Operation

1. Description of process and control devices
2. Process and control equipment flow diagram
3. Sampling port location and dimensioned cross section Attached protocol includes: sketch of stack (elevation view) showing sampling port locations, upstream and downstream flow disturbances and their distances from ports; and a sketch of stack (plan view) showing sampling ports, ducts entering the stack and stack diameter or dimensions

Test Results

1. Detailed test results for each run
2. *Sample calculations
3. *Description of collected samples, to include audits when applicable

Appendix

1. *Raw production data
2. *Raw field data
3. *Laboratory reports
4. *Chain of custody records for lab samples
5. *Calibration procedures and results
6. Project participants and titles
7. Observers' names (industry and agency)
8. Related correspondence
9. Standard procedures

* Not applicable to visible emission evaluations

APPENDIX A – [Reserved]

APPENDIX B – [Reserved]