Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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February 11, 2020

Mr. Mark Davis
Plant Manager
SEMASS Partnership
141 Cranberry Highway
West Wareham, Massachusetts 02576-1504

RE: **MODIFIED APPROVAL**
Application for: BWP AQ 22
MUNICIPAL WASTE COMBUSTOR – EMISSION CONTROL PLAN
ePlace Authorization No.: AQ22-0000010
Application No.: 18-AQ08A/B/22-000003-APP
Class: OP33
FMF No.: 131580

AT: SEMASS Resource Recovery Facility
141 Cranberry Highway
Rochester, Massachusetts 02770

Dear Mr. Davis:

The Massachusetts Department of Environmental Protection ("MassDEP"), Bureau of Air and Waste, has reviewed your Municipal Waste Combustor (MWC) Emission Control Plan ("ECP"), Application ("Application"). This ECP application details how emission limitations and compliance schedules for the control of certain designated pollutants according to 310 CMR 7.08(2) – Municipal Waste Combustors, will be implemented for equipment at the SEMASS Partnership facility ("Facility") located at 141 Cranberry Highway, Rochester, Massachusetts. This application bears the signature of Mr. Mark Davis as responsible official.

This information is available in alternate format. Contact Michelle Waters-Ekanem, Director of Diversity/Civil Rights at 617-292-5751.
TTY# MassRelay Service 1-800-439-2370
MassDEP Website: www.mass.gov/dep

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1. LEGAL AUTHORITY

In accordance with 310 CMR 7.08(2)(e)1., 310 CMR 7.08(2) applies, in its entirety, to any person who owns, leases, operates or controls a large MWC unit.

As stated in 310 CMR 7.08(2)(b), the purpose of 310 CMR 7.08(2) is to provide emission limitations and compliance schedules for the control of certain designated pollutants emitted from Municipal Waste Combustors, in accordance with the requirements contained in Sections 111(d) and 129 of the Clean Air Act. As stated in 310 CMR 7.08(2)(d), 310 CMR 7.08(2) establishes requirements for the following:

Operating Practices (Carbon Monoxide (CO), Flue Gas Temperature, Load Level)
Metals (Mercury (Hg), Lead (Pb), Cadmium (Cd))
Particulate Matter (PM)
Opacity
Organics (Dioxin/Furan)
Acid Gases (Sulfur Dioxide (SO_2), Hydrogen Chloride (HCl))
Nitrogen Oxides (NO_x)
Fugitive Ash Emissions

On March 9, 2018, MassDEP promulgated new and amended applicable requirements in the state MWC Rule at 310 CMR 7.08(2) for large MWCs. As required under the Clean Air Act, the amendments to 310 CMR 7.08(2) make the state MWC Rule as stringent as the most current federal EG for MWCs at 40 CFR 60, Subpart Cb by: establishing more stringent emission limits for PM, Cd, Pb, and Dioxin/Furan; allowing owners of MWCs more options for monitoring emissions; and creating new requirements for operating MWCs. Furthermore, the March 9, 2018 amendments to 310 CMR 7.08(2) incorporate revised NO_x emission standards as Reasonably Available Control Technology (RACT) and are more stringent than the EG.

This MWC ECP Application was submitted in accordance with Regulation 310 CMR 7.08(2)(j)1. to include new or amended applicable requirements in 310 CMR 7.08(2)(f).

In accordance with 310 CMR 7.08(2)(e)2., a plan approval under 310 CMR 7.02 is not required in order to implement the requirements for 310 CMR 7.08(2) unless construction, substantial reconstruction or alterations are planned at the Facility which are not required under the requirements at 310 CMR 7.08(2).

In accordance with 310 CMR 7.08(2)(e)1., applicable requirements and limitations contained in 310 CMR 7.08(2) shall not supersede, relax or eliminate any more stringent conditions or requirements (e.g. emission limitation(s), testing, record keeping, reporting, or monitoring requirements) established by regulation or contained in a facility's previously issued source specific plan approval(s) or emission control plan(s).

MassDEP previously issued a Final ECP Approval (Application No. 4B98051) to SEMASS Partnership ("the Permittee") on July 14, 1999. This ECP Approval was subsequently superseded by a Final ECP Approval (Application No. 4B00058) on December 1, 2000. On March 19, 2012, MassDEP issued a Final ECP Approval (Application No. SE-11-042), which modified and superseded the July 14, 1999 Final ECP Approval (4B98051) and December 1, 2000 Final Approval (4B98051).

In addition, MassDEP issued a Final Operating Permit (Application No. 4V95055 and 4M08017) in accordance with 310 CMR 7.00: *Appendix C* for the Facility on December 2, 2004. The Operating Permit expired on February 12, 2009. However, MassDEP received the Operating Permit Renewal Application (Application no. 4V08031, Transmittal No. X007416) on July 18, 2008. In accordance with 310 CMR 7.00: *Appendix C*(13) Renewals and *Appendix C*(11) Application Shield, the Operating Permit Renewal Application has been afforded an "Application Shield". Therefore, the Permittee may continue to operate under its Application Shield until MassDEP takes final action on the Application. In accordance with 310 CMR 7.08(2)(e)2., the Permittee must amend its Operating Permit Renewal Application to include the approved ECP.

MassDEP has determined that the Application is administratively and technically complete and that the Application is in conformance with the Air Pollution Control regulations and current air pollution control engineering practices, and hereby grants this **Modified Approval** for said ECP Application, as submitted, subject to the conditions listed below.

Please review the entire ECP Approval, as it stipulates the conditions with which the Permittee must comply in order for the Facility to be operated in compliance with this ECP Approval.

Pursuant to 310 CMR 7.08(2)(j)4.a., public notice of the ECP Application was published by MassDEP in the Standard Times and on the MassDEP website on October 9, 2018 and in the Environmental Monitor on October 10, 2018. MassDEP also held a public hearing for the Application at MassDEP Southeast Regional Office, 20 Riverside Drive, Lakeville, Massachusetts on November 8, 2018. MassDEP allowed for a minimum thirty-day public comment period following the published notice. As such, public comment period ended on November 8, 2018. No comments were received.

MassDEP issued the Draft ECP Approval on May 22, 2019. Pursuant to 310 CMR 7.08(2)(j)4.c., public notice of the Draft ECP Approval was published in the New Bedford Standard Times, the Massachusetts Environmental Monitor and on the MassDEP website on May 22, 2019. The 30-day public comment period ended on June 24, 2019. All comments received during the public comment period for the Draft ECP Approval have been reviewed and considered for incorporation into this ECP Modified Approval where deemed appropriate by MassDEP. The comments and MassDEP responses are summarized in the attached Response to Comments document.

2. EMISSION UNIT IDENTIFICATION

The following emission units (Table 1) are subject to and regulated by this ECP approval:

Table 1			
EU	**Description**	**Design Capacity**	**Pollution Control Device**
EU-1 EU-2	Municipal Waste Combustors Processed Refuse Fuel (PRF) Incinerator/ Water Wall Boiler Manufacturer: Riley Stoker	Max. Heat Input 375 MMBtu/hr Max. Steam Load 280,000 lb/hr	Two (2) No. 2 Fuel Oil/Natural Gas Fired Auxiliary Burners (AB) 162.5 MMBtu/hr per AB firing No. 2 Fuel Oil 170 MMBtu/hr per AB firing Natural Gas
			Wet Bottom Boiler Seal
			Powdered Activated Carbon Injection System
			Spray Dryer Absorber with Calcium Hydroxide Slurry Atomization
			Five Field, Electrostatic Precipitator
			Low-Pressure High-Volume Pulse Jet, Fabric Filter Bag, Compact Hybrid Particulate Collector
			Selective Non-Catalytic Reduction (SNCR) with Urea Injection
EU-3	Municipal Waste Combustors Processed Refuse Fuel (PRF) Incinerator/ Water Wall Boiler Manufacturer: Riley Stoker	Max. Heat Input 375 MMBtu/hr Max. Steam Load 270,796 lb/hr	Two (2) No. 2 Fuel Oil/Natural Gas Fired Auxiliary Burners (AB) 162.5 MMBtu/hr per AB firing No. 2 Fuel Oil 170 MMBtu/hr per AB firing Natural Gas
			Wet Bottom Boiler Seal
			Selective Non-Catalytic Reduction (SNCR) with Urea Injection
			Spray Dryer Absorber with Calcium Hydroxide Slurry Atomization
			Pulse Jet, 12 Module, Fabric Filter/Baghouse
EU-4	Bottom Ash Handling and Fugitive Emissions	60 tons/hr	Enclosed Building and Conveyors
			Wet Bottom Ash
EU-5	Fly Ash Handling and Fugitive Emissions for EU-1 and EU-2	2000 ACFM (Silo Vent) 2000 ACFM (Load Out Chutes)	Enclosed Conveyor, Storage Silo and Load-out Chutes
			Cartridge Filters for Load-out Chutes
EU-6	Fly Ash Handling and Fugitive Emissions for EU-3		Fabric Filter/Baghouse for Silo Vent
			Pugmill with Conditioning

Table 1 Key:

EU = Emission Unit
MMBtu/hr = million British Thermal Unit per hour
lb/hr = pound per hour
Max. = Maximum
ACFM = actual cubic feet per minute

3. APPLICABLE REQUIREMENTS

A. OPERATIONAL AND/OR EMISSION LIMITS AND RESTRICTIONS

The SEMASS facility is subject to the emission limits/restrictions as contained in Table 2 below:

Table 2

EU	Restriction/Operating Practices	Pollutant	Emission Limit/Standard[1]	Applicable Regulation and/or Approval No.
EU-1 EU-2	1. Unit Load shall be ≤ 110% of the maximum demonstrated load, calculated in four-hour block arithmetic averages[2], measured during the most recent Dioxin/Furan compliance test in which compliance is achieved[4] 2. PM control device inlet temperature ≤ 17°C (30°F) above maximum demonstrated PM control device temperature calculated in 4-hour block arithmetic averages[2], measured during the most recent Dioxin/Furan compliance test in which compliance is achieved[4] 3. Carbon Feed Rate ≥ MassDEP approved feed rate (8-hour block average) which minimizes Hg emissions as determined during most recent optimization test [4] 4. Ultra-Low Sulfur Diesel Fuel use only (≤ 0.0015% by weight or 15 ppm, Sulfur in Fuel)[8]	PM	≤ 25 mg/dscm @ 7% O_2 dry basis[3]	310 CMR 7.08(2)(f)2
		Opacity	≤ 10% (six-minute average)	
		Cd	≤ 0.035 mg/dscm @ 7% O_2 dry basis	
		Pb	≤ 0.400 mg/dscm @ 7% O_2 dry basis	
		Hg	≤ 0.050 mg/dscm @ 7% O_2 dry basis *(based on average of test runs in any quarterly or 9-month compliance test)* ≤ 0.028 mg/dscm @ 7% O_2 dry basis *(based on average of compliance tests conducted in any rolling 12-month period)*	
		Dioxin/Furan	≤ 35 ng/dscm @ 7% O_2 dry basis	
		SO_2	≤ 29 ppmv @ 7% O_2 dry basis ***or*** 75% reduction by weight or volume, whichever is less stringent (24-hour geometric mean)[5]	

Table 2 (continued)

EU	Restriction/Operating Practices	Pollutant	Emission Limit/Standard[1]	Applicable Regulation and/or Approval No.
EU-1 EU-2	1. Unit Load shall be < 110% of the maximum demonstrated load, calculated in four-hour block arithmetic averages[2], measured during the most recent Dioxin/Furan compliance test in which compliance is achieved[4] 2. PM control device inlet temperature ≤ 17°C (30°F) above maximum demonstrated PM control device temperature calculated in 4-hour block arithmetic averages[2], measured during the most recent Dioxin/Furan compliance test in which compliance is achieved[4] 3. Carbon Feed Rate ≥ MassDEP approved feed rate (8-hour block average) which minimizes Hg emissions as determined during most recent optimization test[4] 4. Ultra-Low Sulfur Diesel Fuel use only (≤ 0.0015% by weight or 15 ppm, Sulfur in Fuel)[8]	HCl	≤ 29 ppmv @ 7% O2 dry basis ***or*** 95% reduction by weight or volume, whichever is less stringent	310 CMR 7.08(2)(f)2.: *Table 2*
		CO	≤ 200 ppmv @ 7% O_2 dry basis at combustor outlet (24-hour daily arithmetic average)[5]	310 CMR 7.08(2)(f)1.a.i.
		NO_x	≤ 250 ppmv @ 7% O_2 dry basis (24-hour daily arithmetic average)[5] *[effective until one year after issuance of ECP approval under 310 CMR 7.08(2), but no later than March 9, 2020]* ≤ 146 ppmv @ 7% O_2 dry basis (24-hour daily arithmetic average)[5] *[effective beginning one year after issuance of ECP approval under 310 CMR 7.08(2), but no later than March 10, 2020]*	310 CMR 7.08(f)3. and 310 CMR 7.08(2)(k)1.
		NH_3	≤ 10 ppm by volume @ 7% O_2 dry basis[6]	310 CMR 7.08(2)(f)5.
EU-3		PM	≤ 25 mg/dscm @ 7% O_2 dry basis[3]	310 CMR 7.08(2)(f)2.
		Opacity	≤ 10% (six-minute average)	
		Cd	≤ 0.035 mg/dscm @ 7% O_2 dry basis	
		Pb	≤ 0.400 mg/dscm @ 7% O_2 dry basis	

Table 2 (continued)

EU	Restriction/Operating Practices	Pollutant	Emission Limit/Standard[1]	Applicable Regulation and/or Approval No.
EU-3	1. Unit Load shall be < 110% of the maximum demonstrated load, calculated in four-hour block arithmetic averages[2], measured during the most recent Dioxin/Furan compliance test in which compliance is achieved[4] 2. PM control device inlet temperature ≤ 17°C (30°F) above maximum demonstrated PM control device temperature calculated in 4-hour block arithmetic averages[2], measured during the most recent Dioxin/Furan compliance test in which compliance is achieved[4] 3. Carbon Feed Rate ≥ MassDEP approved feed rate (8-hour block average) which minimizes Hg emissions as determined during most recent optimization test[4] 4. Ultra-Low Sulfur Diesel Fuel use only (≤ 0.0015% by weight or 15 ppm, Sulfur in Fuel)[8]	Hg	≤ 0.050 mg/dscm @ 7% O_2 dry basis *(based on average of test runs in any quarterly or 9-month compliance test)* ≤ 0.028 mg/dscm @ 7% O_2 dry basis *(based on average of compliance tests conducted in any rolling 12-month period)*	310 CMR 7.08(2)(f)2.
		Dioxin/Furan	≤ 30 ng/dscm @ 7% O_2 dry basis	
		SO_2	≤ 29 ppmv @ 7% O_2 dry basis ***or*** 80% reduction by weight or volume, whichever is less stringent (24-hour geometric mean)[5]	4I98028
		HCl	≤ 25 ppmv @ 7% O2 dry basis ***or*** 95% reduction by weight or volume, whichever is less stringent	
		CO	≤ 150 ppmv @ 7% O_2 dry basis at combustor outlet (24-hour daily arithmetic average)[5]	

Table 2 (continued)				
EU	**Restriction/Operating Practices**	**Pollutant**	**Emission Limit/Standard[1]**	**Applicable Regulation and/or Approval No.**
EU-3	1. Unit Load shall be < 110% of the maximum demonstrated load, calculated in four-hour block arithmetic averages[2], measured during the most recent Dioxin/Furan compliance test in which compliance is achieved[4] 2. PM control device inlet temperature ≤ 17°C (30°F) above maximum demonstrated PM control device temperature calculated in 4-hour block arithmetic averages[2], measured during the most recent Dioxin/Furan compliance test in which compliance is achieved[4] 3. Carbon Feed Rate ≥ MassDEP approved feed rate (8-hour block average) which minimizes Hg emissions as determined during most recent optimization test[4] 4. Ultra-Low Sulfur Diesel Fuel use only (≤ 0.0015% by weight or 15 ppm, Sulfur in Fuel)[8]	NO_x	≤ 180 ppmv @ 7% O_2 dry basis (24-hour daily arithmetic average)[5] *[effective until one year after issuance of ECP approval under 310 CMR 7.08(2)(j)1., but no later than March 9, 2020]*	4I98028
			≤ 146 ppmv @ 7% O_2 dry basis (24-hour daily arithmetic average)[5] *[effective beginning one year after issuance of ECP approval under 310 CMR 7.08(2)(j)1., but no later than March 10, 2020]*	310 CMR 7.08(2)(f)3. and 310 CMR 7.08(2)(k)1.
		NH_3	≤ 10 ppm by volume @ 7% O_2 dry basis[6]	310 CMR 7.08(2)(f)5.
EU-4 EU-5 EU-6	N/A	Fugitive Ash	Visible emissions ≤ 5% of observation period (9 minutes per 3-hour period)[7]	310 CMR 7.08(2)(f)6.

Table 2 Key:

EU	= Emission Unit
≤	= less than or equal to
≥	= greater than or equal to
%	= percent
mg/dscm	= milligram per dry standard cubic meter
ng/dscm	= nanogram per dry standard cubic meter

Table 2 Key (continued):

°C	= degrees Celsius	Pb	= Lead
°F	= degrees Fahrenheit	Hg	= Mercury
@7% O_2 dry basis	= corrected to seven percent oxygen, dry basis	SO_2	= Sulfur Dioxide
ppmv	= parts per million by volume	HCl	= Hydrogen Chloride
PM	= total particulate matter	CO	= Carbon Monoxide
O_2	= Oxygen	NO_x	= Nitrogen Oxides
Cd	= Cadmium		
CMR	= Code of Massachusetts Regulation		
CFR	= Code of Federal Regulation		
ECP	= Emission Control Plan		
MassDEP	= Massachusetts Department of Environmental Protection		
N/A	= Not Applicable		
Dioxin/Furan	= tetra-through octa-chlorinated dibenzo-p-dioxins and dibenzofurans as determined using 40 CFR 60, Appendix A, Reference Method 23		

Table 2 Notes:

1. Emission limit apply at all times except during periods of start-up, shutdown or malfunction as defined in 40 CFR Part 60.58b., as amended.

2. Four-hour block average means the average of all hourly emission concentrations when the affected facility is operating and combusting municipal solid waste, measured over a four-hour period of time from 12:00 midnight to 4:00 A.M., 4:00 A.M. to 8:00 A.M., 8:00 A.M. to 12:00 noon, 12:00 noon to 4:00 PM, 4:00 PM to 8:00 PM, or 8:00 PM to 12:00 midnight.

3. In accordance with 310 CMR 7.08(1)(g), no person shall cause, suffer, allow, or permit emissions from any incinerator of any particles that have a dimension greater than 100 microns. (Be referred to 310 CMR 7.06(2)(c)).

4. In accordance with 310 CMR 7.08(2)(f)1.b., during any nine-month Dioxin/Furan compliance test, quarterly Hg compliance test, or nine-month Hg compliance test, and the two weeks preceding each nine-month Dioxin/Furan compliance test, quarterly Hg compliance test, or nine-month Hg compliance test, municipal waste combustor unit load limit, average mass carbon feed rate limit and particulate matter control device temperature limitations are not applicable.

5. Twenty Four-Hour Daily Average or 24-Hour Daily Average means either the arithmetic mean or geometric mean (as specified) of all hourly emission concentrations when the affected unit is operating and combusting municipal solid waste measured over a 24-hour period between 12:00 A.M. and the next 12:00 A.M.

6. Refer to Section 4.a., "Special Terms and Conditions." If compliance with the Ammonia (NH_3) emission limit/standard is determined by stack testing, then compliance shall be based on a minimum of three (3) compliance test runs on each MWC unit per compliance test, measured at the Spray Dryer Absorber inlet or Fabric Filter outlet, using EPA Test Method 26A or other test method approved by MassDEP. On March 10, 2020, compliance with the NH_3 emission limit/standard of 10 ppm by volume at 7% O_2 dry basis will be suspended until March 10, 2021. During the suspended period the Permittee may request an alternative NH_3 emission limit in accordance with 310 CMR 7.08(2)(f)5.c. MassDEP will review the request and make a

determination as to whether the data provided supports the request for the alternative NH_3 emission limit.

7. No person subject to 310 CMR 7.08(2) shall cause, suffer, allow or permit the discharge into the atmosphere of any visible emissions of combustion ash from an ash conveying system (including transfer points) in excess of 5 percent of the observation period (nine minutes per three-hour period). This emission limit does not cover visible emissions discharged inside buildings or enclosures of ash conveying system; however, the emission limit does apply to visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems. 310 CMR 7.08(2)(f)6. does not apply during maintenance and repair of ash conveying systems. Maintenance and repair of the ash conveying systems must be done in accordance with best management practices.

8. The Permittee may burn any existing stock of fuel oil at the Facility until it is depleted, but shall not accept delivery of fuel with a sulfur content in excess of this limit. Any future purchase and/or delivery of fuel for the Facility must meet the sulfur content of ≤ 0.0015% by weight (15 part per million).

B. COMPLIANCE DEMONSTRATION

Any person subject to 310 CMR 7.08(2) that is subject to 310 CMR 7.00 and 310 CMR 19.00 shall be in compliance with, or on a Department approved compliance schedule to meet, all provisions of 310 CMR 7.00 and 310 CMR 19.00 and any plan approval, order, notice of noncompliance or permit issued thereunder. The facility is subject to the applicable requirements contained in Table 2 above and 310 CMR 7.08, and monitoring/testing, record keeping, and reporting requirements as contained in Tables 3, 4 and 5 below and 310 CMR 7.08:

Table 3	
EU#	**MONITORING/TESTING REQUIREMENTS**
EU-1 EU-2 EU-3	1. In accordance with 310 CMR 7.08(2)(g), the Permittee shall comply with the provisions of 40 CFR 60.58b: *Compliance and Performance Testing*, as last amended May 10, 2006, the provisions of which are hereby incorporated by reference. Compliance with the applicable requirements as set forth in 310 CMR 7.08(2)(f) shall be determined in accordance with 40 CFR 60.58b, except as provided under 310 CMR 7.08(2)(g)1., 2., 3., 5., and 6., and as specified within this ECP.
	2. In accordance with 310 CMR 7.08(2)(g)1., the Permittee shall conduct compliance tests for Dioxin/Furan emissions according to one of the schedules specified below: a. Following the date of the initial performance test, compliance testing for Dioxin/Furan emissions shall be conducted on all municipal waste combustor unit(s) on a nine-month basis; or b. For MWC unit(s) where all compliance tests for all unit(s) over a 27-month period indicate that Dioxin/Furan emissions are less than or equal to 7 ng/dscm, corrected to 7% O_2, the Permittee may elect to conduct compliance tests for one unit every nine months. At a minimum, a compliance test for Dioxin/Furan emissions shall be conducted every nine months following the previous compliance test for one unit at the MWC plant. Every nine months a different unit at the MWC plant shall be tested, and the units at the plant shall be tested in sequence (e.g., unit 1, unit 2, unit 3, as applicable). The Permittee may continue to conduct compliance testing on only one unit per nine-month basis so long as the Dioxin/Furan emission limits remain less than or equal to 7 ng/dscm @ 7% O_2. If any nine-month compliance tests indicated Dioxin/Furan emissions greater than the specified limit, compliance tests shall thereafter be conducted on all units at the plant every nine months until and unless all nine-month compliance test for all units at the plant over a 27-month period indicate Dioxin/Furan emissions less than or equal to the 7 ng/dscm @ 7% O_2.

Table 3 (continued)	
EU#	**MONITORING/TESTING REQUIREMENTS**
EU-1 EU-2 EU-3	3. In accordance with 310 CMR 7.08(2)(g)1.d., for MWC units where carbon injection (or equivalent) is used to comply with the Dioxin/Furan emission limits specified in 310 CMR 7.08(2)(f)2. or the Dioxin/Furan emission limit specified in 310 CMR 7.08(2)(g)1.b., the Permittee shall follow the procedures specified in 40 CFR 60.58b(m), as last amended May 10, 2006, for measuring and calculating 8-hour block average carbon (or equivalent) usage rate.
	4. In accordance with 310 CMR 7.08(2)(g)1.e., any person subject to 310 CMR 7.08(2) electing continuous automated sampling of Dioxin/Furan emissions as an alternative to manual reference method sampling shall comply with the provisions of 40 CFR 60.58b(g)(10), 40 CFR 60.58b(p) and 40 CFR 60.58b(q), as last amended May 10, 2006.
	5. In accordance with 310 CMR 7.08(2)(g)2., compliance testing for Hg shall be conducted on all MWC unit(s) on a quarterly basis. Compliance with the emissions specified in 310 CMR 7.08(2)(f)2. shall be based on the average of four quarterly compliance test per rolling twelve months but shall not exceed 0.050 mg/dscm, corrected to 7% O_2 in any quarterly test. If compliance with the Hg emission limit has been achieved in each quarter for eight consecutive quarters, the Permittee may elect to perform compliance testing on a nine-month basis. Any MWC unit(s) that cannot achieve compliance with the emission limitation in 310 CMR 7.08(2)(f)2. during the nine-month compliance test shall resume quarterly compliance testing as specified above.
	6. Any person subject to 310 CMR 7.08(2) electing continuous monitoring of Hg emissions as an alternative to manual reference method sampling shall comply with the provisions of 40 CFR 60.58b(d)(4), 40 CFR 60.58b(n), and 40 CFR 60.58b(o) as last amended May 10, 2006.
	7. Any person subject to 310 CMR 7.08(2) electing continuous automated sampling of Hg emissions as an alternative to manual reference method sampling shall comply with the provisions of 40 CFR 60.58b(d)(4), 40 CFR 60.58b(n), and 40 CFR 60.58b(o) as last amended May 10, 2006.

Table 3 (continued)	
EU#	**MONITORING/TESTING REQUIREMENTS**
EU-1 EU-2 EU-3	8. In accordance with 310 CMR 7.08(2)(g)3., for MWC unit(s) which employ a carbon injection (or equivalent) Hg emission control system, the Permittee shall conduct optimization tests. These tests will determine the optimum feed rate for the Hg emissions control apparatus by determining the carbon (or equivalent) feed rate at which the emissions of Hg are equal to or less than the applicable limit at 310 CMR 7.08(2)(f)2. The optimization test shall be conducted as follows: a. The optimization tests shall be performed after a change in carbon (or equivalent), upon request by MassDEP, upon request by the Permittee, or annually if required under 310 CMR 7.08(2)(g)4. b. If there are identical MWC units at the MWC plant, then optimization tests may be performed on one unit, and the resulting parameters applied to other unit(s), which is identical to that unit at that plant. c. Within 30 calendar days of the conclusion of any optimization test, the Permittee shall submit to MassDEP for approval a proposed optimized carbon (or equivalent) feed rate that minimizes Hg emissions. An approvable feed rate is the feed rate such that a higher feed rate achieves insignificant additional reductions in Hg emissions compared to the amount of carbon (or equivalent) added. The carbon (or equivalent) feed rate approved by MassDEP shall be used to operate the carbon injection (or equivalent) Hg control system until next optimization test is performed and the feed rate approved. d. Any person owning or operating an MWC unit where carbon injection (or equivalent) is used to comply with the Hg emission limits specified in 310 CMR 7.08(2)(f)2. Or 310 CMR 7.08(2)(g)2. shall follow the procedure specified in 40 CFR 60.58b(m), as last amended May 10, 2006, for measuring and calculating the 8-hour block average carbon (or equivalent) usage rate.
	9. In accordance with 310 CMR 7.08(2)(f) and consistent with 310 CMR 7.08(2)(h)2., compliance with opacity, SO_2, NO_X, CO, MWC unit load, and PM control device inlet temperature shall be demonstrated with continuous monitoring systems. Continuous Emissions Monitoring Systems (CEMS) for SO_2, NO_X, and CO shall meet the quality assurance and quality control requirements of 40 CFR 60, Appendix F.
	10. In accordance with 310 CMR 7.08(2)(g)5.b., CO CEMS installed and operated in accordance with Performance Specification 4 of 40 CFR 60, Appendix B, will satisfy the requirements in 310 CMR 7.08(2)(g).
	11. The nine month compliance demonstration for the opacity limit required under 310 CMR 7.08(2)(g)(6) may be conducted using either date from the continuous opacity monitoring system (COMS) or the procedures in 40 CFR 60, Appendix A, Method 9 as provided for under 40 CFR 60.58b(c)(6) and 40 CFR 60.11(e)(6).

Table 3 (continued)	
EU#	**MONITORING/TESTING REQUIREMENTS**
EU-1 EU-2 EU-3	12. In accordance with 310 CMR 7.08(2)(g)7., in place of PM testing with EPA Reference Method 5, any person subject to 310 CMR 7.08(2) may elect to install, calibrate, maintain, and operate a CEMS for monitoring PM emissions discharged to the atmosphere and record the output of the system. Any person subject to 310 CMR 7.08(2) who elects to continuously monitor PM emissions in place of testing shall comply with the requirements specified in 40 CFR 60.58b(c)(10)(i) through (xiv), as last amended May 10, 2006. Any person subject to 310 CMR 7.08(2) who elects to continuously monitor PM emissions in place of testing is not required to complete performance testing for PM and is not required to continuously monitor opacity as specified in 40 CFR 60.58b(c)(9) and (c)(8), as last amended May 10, 2006.
	13. In accordance with 310 CMR 7.08(2)(g)8., in place of Cd and Pb testing with EPA Reference Method 29, any person subject to 310 CMR 7.08(2) may elect to install, calibrate, maintain, and operate a CEMS for monitoring Cd and Pb emissions discharged to the atmosphere and record the output of the system according to the provisions of 40 CFR 60.58b(n) and (o), as last amended May 10, 2006.
	14. In accordance with 310 CMR 7.08(2)(g)9., in place of HCl testing with EPA Reference Method 26 or 26A, any person subject to 310 CMR 7.08(2) may elect to install, calibrate, maintain, and operate a CEMS for monitoring HCl emissions discharged to the atmosphere and record the output of the system according to the provisions of 40 CFR 60.58b(n) and (o), as last amended May 10, 2006.
	15. Pursuant to MassDEP's authority under 310 CMR 7.14(1), the Permittee shall install, maintain, and use NH3 CEMS. [Refer to Section 4.a., "Special Terms and Conditions"]
	16. The Permittee shall conduct compliance testing (stack testing) for NH_3 on a nine-month basis unless using NH_3 CEMS to demonstrate compliance.
	17. Pursuant to MassDEP's authority under 310 CMR 7.14(1), when using NH_3 CEMS, obtain, at a minimum, valid hourly averages based on at least two data points per hour, for at least 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours per calendar year that the affected Facility is combusting MSW.
	18. In accordance with 310 CMR 7.08(2)(f)5.d., if using an NH_3 CEMS to demonstrate compliance, obtain, at a minimum, valid hourly averages based on at least two data points per hour, for at least 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours per calendar year that the affected Facility is combusting MSW.
EU-1 EU-2 EU-3 EU-4 EU-5 EU-6	19. In accordance with 310 CMR 7.08(2)(g)6., the Permittee shall conduct compliance testing every nine months for each MWC unit for all pollutants designated in a MassDEP approved Emissions Testing Protocol and in Table 2 of this ECP. Compliance testing for Dioxin/Furan and Hg shall be conducted as specified in 310 CMR 7.08(2)(g)1. and 2.
	20. All emissions testing shall be conducted in accordance with MassDEP's guidelines, if any, and in accordance with EPA Test Methods as specified in 40 CFR 60 and 61 Appendix A – Reference Methods. All emissions testing may be audited or witnessed by MassDEP personnel.

Table 3 (continued)	
EU#	**MONITORING/TESTING REQUIREMENTS**
EU-4 EU-5 EU-6	21. The Permittee shall monitor visible emissions associated with ash handling and fugitive operations to ensure compliance with visible emission standards as specified in Table 2 of this ECP. In accordance with 310 CMR 7.08(2)(g)6. And 40 CFR 60.58b(k), the compliance determination will be based on visual monitoring conducted as part of the Facility's nine-month performance testing (stack testing) by an independent testing firm.

Table 3 Key:

EU	= emission unit
%	= percent
mg/dscm	= milligram per dry standard cubic meter
ng/dscm	= nanogram per dry standard cubic meter
CMR	= Code of Massachusetts Regulation
CFR	= Code of Federal Regulation
ECP	= Emission Control Plan
MWC	= municipal waste combustor
e.g.	= for example
@7% O_2	= corrected to seven percent oxygen
MassDEP	= Massachusetts Department of Environmental Protection
Hg	= mercury
PM	= total particulate matter
O_2	= oxygen
Cd	= cadmium
Pb	= lead
SO_2	= sulfur dioxide
HCl	= hydrogen chloride
CO	= carbon monoxide
NO_x	= nitrogen oxides
NH_3	= ammonia

Table 4	
EU#	**RECORD KEEPING REQUIREMENTS**
EU-1 EU-2 EU-3	1. In accordance with 310 CMR 7.08(2)(h), any person subject to 310 CMR 7.08(2) shall comply with the recordkeeping requirements of 40 CFR 60.59b(d), as last amended May 10, 2006, the provisions of which are hereby incorporated by reference, and maintain records including, but not limited to, the information specified in 310 CMR 7.08(2)(h), as applicable, for each MWC unit. All records shall be retained at the Facility for at least five years and shall be made available to MassDEP personnel upon request.
	2. In accordance with 310 CMR 7.08(2)(h)9., the results of all nine month compliance tests conducted to determine compliance with the PM, opacity, Cd, Pb, Hg, Dioxin/Furan, HCl, and the fugitive ash emission limits shall be recorded along with supporting calculations and submitted to MassDEP within 90 days after the test.

Table 4 (continued)	
EU#	**RECORD KEEPING REQUIREMENTS**
EU-1 EU-2 EU-3	3. The results of all compliance tests (stack tests) conducted to determine compliance with the NH_3 emission limit shall be recorded along with supporting calculations and submitted to MassDEP within 90 days after the test.
	4. In accordance with 310 CMR 7.08(2)(h)10., for all Dioxin/Furan compliance tests, the maximum demonstrated MWC load level and maximum PM control device inlet temperature averages (for each PM control device), shall be recorded along with supporting calculations.
	5. In accordance with 310 CMR 7.08(2)(h)4., MWC unit(s) that apply carbon (or equivalent) for Hg or Dioxin/Furan control, shall maintain the following records: a. During Hg compliance tests, the average carbon (or equivalent) mass feed rate (in lbs/hr) shall be estimated and recorded along with supporting calculations as required under 40 CFR 60.58(b)(m)(1)(i), as last amended May 10, 2006. An 8-hour block average carbon mass feed rate (lb/hr) shall then be calculated and recorded. b. During Dioxin/Furan compliance tests, the average carbon (or equivalent) mass feed rate (in lbs/hr) shall be estimated and recorded along with supporting calculations as required under 40 CFR 60.58(b)(m)(1)(ii), as last amended May 10, 2006. An 8-hour block average carbon mass feed rate (lb/hr) shall then be calculated and recorded. c. The average carbon (or equivalent) mass feed rate (in lbs/hr) shall be estimated and recorded along with supporting calculations for each hour of operation as required by 40 CFR 60.58(b)(m)(3)(ii), as last amended May 10, 2006. All carbon mass feed rate 8-hour block averages (in lbs/hr) shall also be recorded. d. The total carbon (or equivalent) usage for each calendar quarter shall be estimated as specified under 40 CFR 60.58b(m)(3), as last amended May 10, 2006, with supporting calculations. e. The carbon (or equivalent) injection system operating parameter data for the parameter(s) that are the primary indicator(s) of carbon (or equivalent) feed rate shall be calculated as specified in 40 CFR 60.58b(m)(2), as last amended May 10, 2006, and recorded.
	6. In accordance with 310 CMR 7.08(2)(h)13., for MWC units that apply carbon (or equivalent) for Hg or Dioxin/Furan control: a. The Permittee shall record each calendar date and time when the 8-hour block average carbon (or equivalent) mass feed rate recorded under 310 CMR 7.08(2)(h)4.c. was less than either of the average carbon feed rates estimated during compliance tests for Hg or during Dioxin/Furan emissions and recorded under 310 CMR 7.08(2)(h)4.a. or b., respectively, with reasons for such feed rates and a description of corrective actions taken; or b. If a carbon injection (or equivalent) system operating parameter is the primary indicator(s) of carbon (or equivalent) mass feed rate recorded under 310 CMR 7.08(2)(h)4.e., the Permittee shall record the calendar dates and times when the carbon (or equivalent) injection system operating parameter is below the level(s) estimated during the compliance tests as specified in 40 CFR 60.58b(m)(1)(i) and (ii), as last amended May 10, 2006, with reasons for such occurrences and a description of corrective actions taken.

Table 4 (continued)	
EU#	**RECORD KEEPING REQUIREMENTS**
EU-1 EU-2 EU-3	7. In accordance with 310 CMR 7.08(2)(h)2., the Permittee shall record the emission concentrations and operating parameters measured using continuous emissions monitoring systems. The measurements specified below shall be recorded and shall be available for submittal to MassDEP or for onsite review by MassDEP personnel: a. All 6-minute average opacity levels as specified under 40 CFR 60.58b(c), as last amended May 10, 2006, including the highest level measured. b. All 1-hour average SO_2 emission concentrations as specified under 40 CFR 60.58b(e), as last amended May 10, 2006. c. All 1-hour average NO_x emission concentrations as specified under 40 CFR 60.58b(h), as last amended May 10, 2006. d. All 1-hour average CO emission concentrations, MWC unit load measurements, and PM control device inlet temperatures as specified under 40 CFR 60.58b(i), as last amended May 10, 2006. e. All 24-hour daily geometric average SO_2 emission concentrations and all 24-hour daily geometric average percent reductions in SO_2 emissions as applicable, as specified under 40 CFR 60.58b(e), as last amended May 10, 2006, including the highest level recorded. f. All 24-hour daily arithmetic average NO_x emission concentrations as specified under 40 CFR 60.58b(h), as last amended May 10, 2006, including the highest level recorded. g. All 4-hour block averages of CO emission concentrations as specified under 40 CFR 60.58b(i), as last amended May 10, 2006, including the highest level recorded. h. All 4-hour block arithmetic averages of MWC unit load levels (steam flow) and PM control device inlet temperature as specified under 40 CFR 60.58b(i), as last amended May 10, 2006, including the highest level recorded. i. As applicable, all 1-hour average and 24-hour daily (block) average PM emissions concentrations, as specified under 40 CFR 60.58b(c), as last amended May 10, 2006, including the highest level recorded. j. As applicable, all 1-hour average and 24-hour daily arithmetic average Hg, Cd, Pb, or HCl emissions concentrations, as specified under 40 CFR 60.58b(n), as last amended May 10, 2006, including the highest level recorded. k. As applicable, all integrated 2-week Dioxin/Furan and integrated 24-hour Hg emissions concentrations, as specified under 40 CFR 60.58b(p), as last amended May 10, 2006, including the highest level recorded.

Table 4 (continued)	
EU#	**RECORD KEEPING REQUIREMENTS**
EU-1 EU-2 EU-3	8. In accordance with 310 CMR 7.08(2)(h)3., the Permittee shall record the calendar dates when any of the average emissions concentrations or percent reductions, opacity levels, or operating parameters recorded under 310 CMR 7.08(2)(h)2., exceed the applicable limits, with detailed specific reasons for such exceedances and a description of corrective actions taken.
	9. In accordance with 310 CMR 7.08(2)(h)5., the Permittee shall record the calendar rates and time periods for which the minimum number of hours of any of the data specified below have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken: a. SO_2 emissions data b. NO_x emissions data c. CO emissions data d. MWC unit load data, including PM control device inlet temperature data. e. For any person subject to 310 CMR 7.08(2) who elects to continuously monitor PM, Cd, Pb, Hg, or HCl emissions instead of using EPA manual test methods, PM, Cd, Pb, Hg, or HCl emissions data f. For any person subject to 310 CMR 7.08(2) who elects to use continuous automated sampling system for Dioxin/Furan or Hg instead of EPA manual test methods, dates and times when the sampling systems were not operating or were not collecting a valid sample.
	10. Pursuant to MassDEP's authority under 310 CMR 7.14(1), the Permittee shall record the calendar dates and time periods for which the minimum number of hours of any of the data specified below have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken: a. NH_3 emissions data
	11. In accordance with 310 CM 7.08(2)(h)6., the Permittee shall record each occurrence that SO_2, NO_x, and as applicable, PM, Cd, Pb, Hg, HCl, or Dioxin/Furan emissions data, or operational data (e.g., CO emissions, MWC unit load, and PM control device inlet temperature) have been excluded from the calculation of average emission concentrations or parameters, along with detailed and specific reasons for excluding the data.
	12. Pursuant to MassDEP's authority under 310 CMR 7.14(1), the Permittee shall record each occurrence that NH_3 emissions data have been excluded from the calculation of average emission concentrations or parameters, along with detailed and specific reasons for excluding the data.

Table 4 (continued)	
EU#	**RECORD KEEPING REQUIREMENTS**
EU-1 EU-2 EU-3	13. In accordance with 310 CMR 7.08(2)(h)7., the Permittee shall record the results of daily drift tests and quarterly accuracy determination for SO_2, NO_x, and CO CEMS, as required under 40 CFR, Part 60, Appendix F, Procedure 1. For any person who elects to continuously monitor or sample instead of using EPA manual test methods, the Permittee shall record the results of daily drift tests and quarterly accuracy determinations for PM as required under 40 CFR 60, Appendix F, Procedure 2, the results of all quality evaluations, such as daily drift tests and periodic accuracy determinations for Cd, Pb, Hg, or HCl, specified in the approved site-specific performance evaluation test plan required by 40 CFR 60.58b(o)(5), as last amended May 10, 2006, and all continuous automated Dioxin/Furan or Hg sampling systems quality evaluations specified in the approved site-specific performance evaluation test plan required by 40 CFR 60.58b(q)(5), as last amended May 10, 2006.
	14. Pursuant to MassDEP's authority under 310 CMR 7.14(1), the Permittee shall record the results of daily drift tests and quarterly accuracy determinations for NH_3.
	15. In accordance with 310 CMR 7.08(2)(h)8., the Permittee shall maintain records of each occurrence of a start-up, shut down or malfunction that results in an exceedance of the limits defined in Table 2, including the specific reasons for each occurrence, date, time, and unit involved. Average emissions concentrations or percent reductions, or operating parameters recorded under 310 CMR 7.08(2)(h)2., shall be recorded during start-up, shut down or malfunction.

Table 4 (continued)	
EU#	**RECORD KEEPING REQUIREMENTS**
EU-1 EU-2 EU-3	16. In accordance with 310 CMR 7.08(2)(h)11., the Permittee shall maintain records showing the names of the MWC chief facility operator, shift supervisors, and control room operators who are certified by ASME (Operator Certification and Provisional Certification), including the dates of initial and renewal certifications and documentation of current certification. The Permittee shall also maintain 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 if required. Records of when a certified operator is temporarily off site, pursuant to 310 CMR 7.08(2)(h)11.a. and b. shall also be kept: a. If the certified chief facility operator and certified shift supervisor are off site for more than 12 hours, but for 2 weeks or less, and no other certified operator is on site, record the dates that the certified chief facility operator and certified shift supervisor were off site. b. When all certified chief facility operators and certified shift supervisors are off site for more than 2 weeks and no other certified operator is on site, keep records of: i. Time of day that all certified persons are off site. ii. The conditions that cause those people to be off site. iii. The corrective actions taken by the owner or operator of the affected Facility to ensure a certified chief facility operator or certified shift supervisor is on site as soon as practicable. iv. Copies of the written reports submitted every 4 weeks that summarize the actions taken by the owner or operator of the affected Facility to ensure that a certified chief facility operator or certified shift supervisor will be on site as soon as practicable.
	17. In accordance with 310 CMR 7.08(2)(h)12., the Permittee shall maintain the records showing the names of the persons who have completed a review of the operating manual as required by 310 CMR 7.08(2)(f) 6. d. including the date of the initial review and subsequent annual reviews.
	18. In accordance with 310 CMR 7.08(2)(h)1., the Permittee shall maintain the calendar date of each record required above.
	19. The Permittee shall maintain a record of oil analysis results to demonstrate compliance with the fuel oil sulfur content limit. The analysis of sulfur content of fuel shall be in accordance with the applicable American Society for Testing Materials (ASTM) test methods or any other method approved by MassDEP and EPA. Fuel sulfur information may be provided by fuel suppliers.
EU-1, EU-2, EU-3, EU-4, EU-5, EU-6	20. In accordance with 310 CMR 7.08(2)(h), any person subject to 310 CMR 7.08(2) shall maintain records of the information specified in 310 CMR 7.08(2)(h), as applicable, for each MWC unit. All records shall be retained at the facility for at least 5 years.

Table 4 (continued)	
EU#	**RECORD KEEPING REQUIREMENTS**
EU-4 EU-5 EU-6	21. In accordance with 310 CMR 7.08(2)(h)9., the Permittee shall maintain records of the results of all nine-month compliance tests conducted to determine compliance with the fugitive ash emission limit, along with supporting calculations.

Table 4 Key:

EU	= emission unit	PM	= total particulate matter
%	= percent	O_2	= oxygen
lbs/hr	= pounds per hour	Cd	= cadmium
CMR	= Code of Massachusetts Regulation	SO_2	= sulfur dioxide
CFR	= Code of Federal Regulation	HCl	= hydrogen chloride
MWC	= municipal waste combustor		
MassDEP	= Massachusetts Department of Environmental Protection		
EPA	= Environmental Protection Agency		
ASME	= American Society of Mechanical Engineers		
Hg	= mercury		
CO	= carbon monoxide		
NO_x	= nitrogen oxides		
NH_3	= ammonia		

Table 5	
EU#	**REPORTING REQUIREMENTS**
EU-1 EU-2 EU-3	1. As required by 310 CMR 7.08(2)(i), the Permittee shall submit an annual report pursuant to 40 CFR 60.59b(g), as last amended May 10, 2006, the provisions of which are hereby incorporated by reference, that includes, but is not limited to, the information specified in 310 CMR 7.08(2)(i)1., as applicable. In accordance with 310 CMR 7.08(2)(i)1., annual reports shall be submitted to MassDEP no later than February 15 of each year following the calendar year in which the data were collected. In accordance with 310 CMR 7.08(2)(g)1.c., if the Permittee elects to follow the compliance testing schedule specified in 310 CMR 7.08(2)(g)1.b., it shall follow the procedures specified in 310 CMR 7.08(2)(i)1. for reporting the selection of this schedule. Annual Reporting Requirements – In accordance with 310 CMR 7.08(2)(i)1.a. through h., the information specified below shall be reported: a. 7.08(2)(h)2.a.: Highest recorded 6-minute block average opacity level. b. 7.08(2)(h)2.e.: Highest recorded 24-hour daily geometric SO_2 average and 24-hour daily geometric SO_2 percent reduction average, as applicable. c. 7.08(2)(h)2.f.: Highest recorded 24-hour daily arithmetic NO_x average. d. 7.08(2)(h)2.g.: Highest recorded 4-hour block CO average. e. 7.08(2)(h)2.h.: Highest recorded MWC unit load (steam flow) 4-hour block arithmetic average and PM control device inlet temperature 4-hour block arithmetic average. f. 7.08(2)(h)2.i.: As applicable, highest recorded 1-hour and 24-hour daily (block) PM averages. g. 7.08(2)(h)2.j.: As applicable, highest recorded 1-hour and 24-hour daily arithmetic Hg, Cd, Pb, and HCl averages. h. 7.08(2)(h)2.k.: As applicable, highest recorded integrated 2-week Dioxin/Furan and integrated 24-hour Hg emission concentrations.

Table 5 (continued)	
EU#	**REPORTING REQUIREMENTS**
EU-1 EU-2 EU-3	*1. continued….* i. 7.08(2)(h)4.a.: The average carbon (or equivalent) mass feed rate (lb/hr) estimated and the 8-hour block average calculated during Hg compliance tests. j. 7.08(2)(h)4.b.: The average carbon (or equivalent) mass feed rate (lb/hr) estimated and the 8-hour block average calculated during Dioxin/Furan compliance tests. k. 7.08(2)(h)5. and 40 CFR 60.59b(g)(1)(iv), as last amended May 10, 2006: All calendar dates and time periods for which the minimum number of hours of data were not obtained for calculation of emissions of SO_2, NO_x, CO, and, as applicable, PM, Cd, Pb, Hg, HCl, or Dioxin/Furan, as well as MWC unit load (steam flow) and PM control device inlet temperature, including the reasons why and corrective actions taken. As applicable, include dates and times when PM, Cd, Pb, Hg, or HCl continuous monitoring were not operating or collecting a valid sample. As applicable, include dates and times when automated sampling systems for Dioxin/Furan or Hg were not operating or collecting a valid sample. l. 7.08(2)(h)6. and 40 CFR 60.59b(g)(1)(v), as last amended May 10, 2006: Each occurrence that hourly data averages were excluded from the calculation of emissions of SO_2, NO_x, CO, and, as applicable, PM, Cd, Pb, Hg, HCl, or Dioxin/Furan, as well as MWC unit load (steam flow) and PM control device inlet temperature, including reasons why. m. 7.08(2)(h)8.: Each occurrence of a start-up, shutdown or malfunction that results in an exceedance of the limits defined in Table 2, including reasons for each occurrence, date, time, and unit involved. Include the average emission concentrations or percent reductions, or the parameters recorded under 310 CMR 7.08(2)h.2. for the periods of the start-up, shutdown or malfunction. n. 7.08(2)(h)9.: Results of all compliance tests conducted during the year. o. 7.08(2)(h)10.: Maximum demonstrated MWC unit load (steam flow) and PM control device inlet temperature (for each PM control device) determined during Dioxin/Furan compliance tests. p. Summary of the above information (a. through o.) for the previous year. q. The performance evaluation of the CEMS using the applicable performance specifications of 40 CFR 60, Appendix B. r. If applicable, a notification of intent to begin the reduced Dioxin/Furan compliance testing schedule specified in 310 CMR 7.08(2)(g)1.b. during the following calendar year. s. Documentation of periods when all certified chief facility operators and certified shift supervisors are off site for more than twelve (12) hours.

Table 5 (continued)	
EU#	**REPORTING REQUIREMENTS**
EU-1 EU-2 EU-3	2. Pursuant to MassDEP's authority under 310 CMR 7.14(1), the Permittee shall include, for NH_3 emissions, the following in the annual report submitted in accordance with 310 CMR 7.08(2)(i), including the information specified in Item 1.p. above and the performance evaluation of the NH_3 CEMS using an applicable performance specification: a. Highest recorded 24-hour daily arithmetic NH_3 average. b. All calendar dates and times for which the minimum number of hours of data were not obtained for calculation of NH_3 emissions. c. ach occurrence that hourly data averages were excluded from the calculation of NH_3 emissions. d. Each occurrence of a start-up, shutdown or malfunction that results in an exceedance of the NH_3 limit defined in Table 2, including reasons for each occurrence, date, time, and unit involved. e. Information concerning all out-of-control periods, including start and end dates and descriptions of corrective actions taken.
	3. As required by 310 CMR 7.08(2)(i), the Permittee shall submit a semiannual report pursuant to 40 CFR 60.59b(h), as last amended May 10, 2006, the provisions of which are hereby incorporated by reference, that includes, but is not limited to, the information specified in 310 CMR 7.08(2)(i)2. for any recorded pollutant or parameter that does not comply with the emission limits as set forth in 310 CMR 7.08(2). Semi-Annual Reporting Requirements - In accordance with 310 CMR 7.08(2)(i)2.a. through e., the information specified below shall be reported: a. 7.08(2)(h)2.a., e. through k.: For the reporting period, each emission concentration, percent reduction, or operating parameter average that exceeded the applicable limit in Table 2 for each date recorded under 310 CMR 7.08(2)(h)3. b. 7.08(2)(h)3.: For the reporting period, identification of the calendar date and time when each emission concentration, percent reduction, or operating parameter average recorded under 310 CMR 7.08(2)(h)2.a., e. through k. exceeded the applicable limit in Table 2, including reasons why and corrective action taken. c. 7.08(2)(h)4.c. and 7.08(2)(h)13.a.: For the reporting period, the 8 hour block average carbon mass feed rate (lbs/hr) estimated for each hour of operation as required under 40 CFR 60.58b(m)(3)(ii) that was less than the 8-hour block average estimated during either Hg or Dioxin/Furan compliance testing and recorded under 310 CMR 7.08(2)(h)4.a. or b. The Permittee shall include the 8-hour block average carbon mass feed rate, the date and time of each occurrence, reasons why and corrective action taken.

Table 5 (continued)	
EU#	**REPORTING REQUIREMENTS**
EU-1 EU-2 EU-3	*3. continued….* d. 7.08(2)(h)9.: Any compliance test reports that document emission levels above the applicable requirements and corrective actions taken. e. 7.08(2)(h)13.b.: For the reporting period, the carbon injection (or equivalent) system operating parameter(s) that are the primary indicator(s) of carbon (or equivalent) mass feed rate recorded under 310 CMR 7.08(2)(h)4.e. that are below the level(s) estimated during either Hg or Dioxin/Furan compliance testing and recorded under 310 CMR 7.08(2)(h)4.a. or b. The Permittee shall include the carbon injection (or equivalent) system operating parameter, the date and time of each occurrence, reasons why and corrective action taken. Semiannual reports shall be submitted to MassDEP according to the schedule specified: (1) If data reported in accordance with 310 CMR 7.08(2)(i)2 were collected during the first calendar half, then the report shall be submitted on or before August 1 following the first calendar half; (2) If data reported in 310 CMR 7.08(2)(i)2 were collected during the second calendar half, then the report shall be submitted on or before February 15 following the second calendar half.
	4. Pursuant to MassDEP's authority under 310 CMR 7.14(1), the Permittee the Permittee shall include, for NH_3 emissions, the following in the semiannual report submitted in accordance with 310 CMR 7.08(2)(i): a. For the reporting period, each emission concentration that exceeded the NH_3 limit in Table 2. b. For the reporting period, identification of the calendar date and time when each emission concentration exceeded the applicable limit in Table 2, including reasons why and corrective action taken. c. Information concerning all out-of-control periods, including start and end dates and descriptions of corrective actions taken.
	5. As required by 310 CMR 7.08(2)(i), in meeting the reporting requirements of 310 CMR 7.08(2)(i)1. and 310 CMR 7.08(2)(i)2., the Permittee shall report the information in a format determined by MassDEP that is designed to be understandable and informative to the public. The information shall be submitted in written format and electronic format.
	6. In accordance with 310 CMR 7.08(2)(i)3., any person subject to 310 CMR 7.08(2) electing continuous emissions monitoring for PM, Hg, Pb, Cd or HCl, or continuous automated sampling for Dioxin/Furan or Hg, in lieu of manual sampling, shall comply with the applicable notification requirements of 40 CFR 60.59b(m) and reporting requirements of 40 CFR 60.59b(n)(12) and 40 CFR 60.59b(o)(12), as last amended May 10, 2006.

Table 5 (continued)	
EU#	**REPORTING REQUIREMENTS**
EU-1 EU-2 EU-3	7. The Permittee shall submit an Emissions Testing Protocol (Source Test Plan) to MassDEP for approval, at least 45 days before the initiation of any compliance testing that involves an update to a previously approved Emissions Testing Protocol by MassDEP. For any future compliance testing after MassDEP approves the Emissions Testing Protocol, the Permittee shall notify MassDEP, in writing, within 45 days of testing. The Permittee shall state in the testing notification to MassDEP whether it plans to follow a previously approved Emissions Testing Protocol or whether it is submitting for approval by MassDEP an updated Emissions Testing Protocol. The Emissions Testing Protocol shall contain a detailed description of all pollutants designated to be tested, sampling point locations, sampling equipment, sampling and analytical procedures, and operating conditions for the required testing. All updated protocol submittals must be approved by MassDEP prior to conducting such testing. Notification shall be provided in the testing protocol if the Permittee intends to use COMS data in lieu of 40 CFR 60, Appendix A, Method 9 determinations for the 9-month opacity compliance demonstration as provided for under 40 CFR 60.58b(c)(6) and 40 CFR 60.11(e)(6).
EU-4 EU-5 EU-6	8. The annual report required pursuant to 310 CMR 7.08(2)(i) shall also include the results of any 9-month fugitive ash compliance demonstration.
	9. If the results of any 9-month fugitive ash demonstration indicate noncompliance, this information and the corrective actions taken shall also be included in the semi-annual report required pursuant to 310 CMR 7.08(2)(i).

Table 5 Key:

EU	= emission unit
lb/hr	= pound per hour
CMR	= Code of Massachusetts Regulation
CFR	= Code of Federal Regulation
MWC	= municipal waste combustor
MassDEP	= Massachusetts Department of Environmental Protection
CEMS	= Continuous Emissions Monitoring System
COMS	= Continuous Opacity Monitoring System
Hg	= mercury
PM	= total particulate matter
O_2	= oxygen
Cd	= cadmium
Pb	= lead
SO_2	= sulfur dioxide
HCl	= hydrogen chloride
CO	= carbon monoxide
NO_x	= nitrogen oxides
NH_3	= ammonia

4. SPECIAL TERMS AND CONDITIONS

a. The Permittee is required to install NH_3 CEMS, pursuant to 310 CMR 7.14(1), as a compliance indicator, as follows. Pursuant to MassDEP's authority under 310 CMR 7.14(1)(a), the Permittee shall install, maintain, and use NH_3 CEMS of a design and installation approved by MassDEP. The Permittee shall submit its proposed NH_3 CEMS design methodology and installation plan to MassDEP no later than sixty (60) days from the date this ECP Modified Approval becomes effective. The Permittee shall install and operate the MassDEP approved NH_3 CEMS no later than 180 days from the date this ECP Modified Approval becomes effective. Furthermore, in accordance with 310 CMR 7.08(2)(f)5., any person subject to 310 CMR 7.08(2) utilizing NH_3 or urea for NO_x control shall:

1. conduct NH_3 optimization testing to meet the future NO_x limit of 146 ppm by volume at 7% O_2 dry basis, and (refer to 310 CMR 7.08(2)(f)5.a.)
2. submit a report to MassDEP correlating NO_x emissions and NH_3 slip, and (refer to 310 CMR 7.08(2)(f)5.b.)
3. propose an NH_3 emissions limit that MassDEP will review and may modify before incorporating in the unit's approval, pursuant to the procedures in 310 CMR 7.08(2)(j)7. (refer to 310 CMR 7.08(2)(f)5.c.)

NH_3 emissions from each MWC unit shall be limited to 10 ppm by volume at 7% O_2 dry basis, except as indicated in Table 2, Note 6. CEMS NH_3 emissions and limit shall be based on a 24-hour daily arithmetic average.

The Permittee shall complete all of the items required by Special Conditions (4.a.1., 2., and 3.) no later than March 10, 2021.

b. No person subject to 310 CMR 7.08(2) shall:

1. cause, suffer, allow or permit a MWC unit to operate at a load level (based on steam load measured as specified in 40 CFR 60.58b(i)(6) as last amended May 10, 2006) greater than 110 percent of the maximum demonstrated MWC unit load calculated in 4-hour block arithmetic averages, measured during the most recent Dioxin/Furan compliance test in which compliance is achieved; and (310 CMR 7.08(2)(f)1.a.ii.)

2. cause, suffer, allow or permit a MWC unit to operate at a temperature, measured at the PM control device inlet, exceeding 17°C (30°F) above the maximum demonstrated PM control device temperature, calculated in 4-hr block arithmetic averages, measured during the most recent Dioxin/Furan compliance test in which compliance is achieved. (310 CMR 7.08(2)(f)1.a.iii.)

MWC unit load limit and PM control device temperature limitations may be waived, if prior approval is granted by MassDEP, for the purposes of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance provided that there is an improvement in controlling air pollution, or advancing the state-of-the-art for controlling facility emissions. (310 CMR 7.08(2)(f)1.c.)

c. In accordance with 310 CMR 7.08(2), following performance tests for Dioxin\Furan or Mercury emissions, the Facility shall operate with carbon mass feed rate that equals or exceeds the average that was determined during the performance test. Compliance with this minimum feed rate will be based on carbon mass feed rate 8-hour block averages, in pounds per hour (lbs/hr).

d. In accordance with 310 CMR 7.08(2)(f)7., the Facility shall implement the following municipal waste combustor operator training and certification requirements:

1. The Permittee shall have each chief facility operator and shift operator obtain and maintain an Operator Certificate issued by the American Society of Mechanical Engineers (ASME). (310 CMR 7.08(2)(f)7.a.)

2. In accordance with 310 CMR 7.08(2)(f)7.b., the Permittee shall not allow the MWC unit to be operated at any time unless one of the following persons is on duty: A chief facility operator or a shift supervisor who has obtained an Operator Certificate. (A Provisional Certificate is acceptable provided the supervisor is scheduled to obtain an Operator Certificate in accordance with 310 CMR 7.08(2)(f). A provisionally certified operator who is newly promoted or recently transferred to a shift supervisor or a chief facility operator position at the MWC unit may perform the duties of the certified chief facility operator or certified shift supervisor without notice to, or approval by, MassDEP for up to six (6) months before taking the ASME QRO certification exam.). If one of the persons listed above must leave the MWC plant during his or her operating shift, a provisionally certified control room operator who is on site at the MWC plant may fulfill these requirements.

When the certified chief facility operator and certified shift supervisor are both off site for twelve (12) hours or less, and no other certified operator is on site, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor.

When the certified chief facility operator and certified shift supervisor are both off site for more than twelve (12) hours, but for two (2) weeks or less, and no other certified operator is on site, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor without notice to, or approval by, MassDEP. However, the Permittee must record the period when the certified chief facility operator and certified shift supervisor are off site and include that information in the annual report as specified under 310 CMR 7.08(2)(i)1.h.

When the certified chief facility operator and certified shift supervisor are both off site for more than two weeks, and no other certified operator is on site, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor without approval by MassDEP. However, the Permittee must take the following two actions:

i. MassDEP must be notified in writing no later than three working days after the two-week period. The initial notification shall state the cause of the absence and the actions that are being taken by the Permittee to ensure that a certified chief facility operator or certified shift supervisor is on site as expeditiously as practicable.

ii. A written status report and corrective action summary must be submitted to MassDEP every four weeks, beginning four weeks following the initial notification. The Permittee shall include in each status summary a demonstration that a good faith effort has been made and continues to be made to ensure that a certified chief facility operator or certified shift supervisor is on site. If MassDEP provides notice that the status report or corrective action summary is disapproved, the MWC unit may continue operation for ninety days, but then must cease operation. If corrective actions are taken in the ninety-day period such that MassDEP withdraws the disapproval, MWC unit operation may continue.

3. In accordance with 310 CMR 7.08(2)(f)7.c., the Permittee shall have all chief facility operators, shift supervisors, and control room operators who have not obtained an Operator Certificate from ASME complete the National Technical Information Service – "EPA MWC Operating Course".

4. In accordance with 310 CMR 7.08(2)(f)7.d., the Permittee shall establish a training program to review the operating manual with each person who has responsibilities affecting the operation of an affected MWC unit, including, but not limited to, chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers. Each person specified above shall undergo initial training no later than the date prior to the day the person assumes responsibilities affecting MWC unit operation and annually thereafter. The site-specific operating manual shall be updated on a yearly basis, as necessary, and shall address at a minimum the following:

i. A summary of all applicable requirements in 310 CMR 7.08(2);
ii. Basic combustion theory applicable to an MWC unit;
iii. Procedures for receiving, handling, and feeding MSW;
iv. MWC unit startup, shutdown, and malfunction procedures;
v. Procedures for maintaining proper combustion air supply levels;
vi. Procedures for operating the MWC unit within the requirements established under 310 CMR 7.08(2);
vii. Procedures for responding to periodic upset or off-specification conditions;
viii. Procedures for minimizing PM carryover;

ix. Procedures for handling ash;
x. Procedures for monitoring MWC unit emissions; and
xi. Reporting and record keeping procedures.

5. The Permittee shall make available to MassDEP for inspection upon request all the operating manual and records of training.

e. In accordance with 310 CMR 7.08(2)(j)5., additional requirements may be included in the ECP Approval if MassDEP determines that the emissions from a MWC plant's unit(s) alone or cumulatively with other MWC plant's unit(s) cause or contribute to a condition of air pollution or a violation of any other regulation. Such requirements include, but are not limited to, emissions limits on air contaminants, and additional stack testing or emission monitoring requirements.

f. In accordance with 310 CMR 7.08(2)(a), no person shall allow, or permit the construction, substantial reconstruction, alteration or operation of an MWC unit on a site which has not received a site assignment in accordance with Massachusetts General Laws Chapter 111, Section 150A.

g. The Facility shall not combust sewage sludge in any of the MWC units.

h. Should any nuisance condition(s) occur as a result of the operation of this Facility, then appropriate steps shall immediately be taken by the Facility to abate said nuisance condition(s).

i. This ECP Modified Approval (ePlace Authorization No. AQ22-0000010) supersedes the ECP Approval (Application No. SE-11-042) issued to the Permittee on March 19, 2012, with the exception that all plan application materials submitted as part of the ECP Approval (Application No. SE-11-042) become part of this ECP Approval (ePlace Authorization No. AQ22-0000010).

5. MODIFICATION TO THE ECP

In accordance with 310 CMR 7.08(2)(j)5., MassDEP may modify the ECP at any time if MassDEP determines that a MWC plant's unit(s) alone or cumulatively with other MWC plant's unit(s) cause or contribute to a condition of air pollution or a violation of any other regulation. Such modifications must comply with 310 CMR 7.08(2)(j)7.

In accordance with 310 CMR 7.08(2)(j)7., if MassDEP proposes to modify a MWC plant's ECP, MassDEP shall publish a notice of public comment in accordance with Massachusetts General Laws Chapter 30A detailing the proposed modification. MassDEP shall allow for a 30-day public comment period following the published notice. MassDEP will modify the ECP after the close of the public comment period.

6. GENERAL LEGAL RESPONSIBILITY

SEMASS shall maintain continuous compliance at all times with the terms of this emission control plan. This approval may be suspended, modified, or revoked by the Department if at any time the facility is violating any applicable Regulation(s) or conditions of this approval letter.

The application material submitted and this Approval together constitutes the approved ECP. Where there is a conflict between the submitted information and this Approval, this Approval shall rule.

Please be advised that this Approval does not negate the responsibility of the Facility to comply with this or any other applicable federal, state, or local regulations now or in the future. Nor does this Approval imply compliance with any applicable federal, state, or local regulations now or in the future.

7. MASSACHUSETTS ENVIRONMENTAL POLICY ACT

MassDEP has determined that the filing of an Environmental Notification Form (ENF) with the Secretary of Environmental Affairs, for air quality control purposes, was not required prior to this action by the Department. Notwithstanding this determination, the Massachusetts Environmental Policy Act (MEPA) and Regulation 301 CMR 11.00 Section 11.03, provide certain "Fail Safe Provisions" which allow the Secretary to require the filing of an ENF and/or Environmental Impact Report at a later time.

8. APPEAL PROCESS

This Decision is an action of MassDEP. If you are the applicant, an aggrieved person who has submitted written comments, where applicable, or a ten persons group that has submitted written comments, where applicable, you may request an adjudicatory hearing in accordance with 310 CMR 7.51(1). A request for a hearing must be made in writing and postmarked within twenty-one (21) days of the date of issuance of this Decision.

Under 310 CMR 1.01(6)(b), the request for adjudicatory hearing must state clearly and concisely the facts which are the grounds for the request, the relief sought. Additionally, the request must state why the Decision is not consistent with applicable laws and regulations. In the request, an aggrieved person must state with specificity the basis of his or her claim of aggrievement. A ten persons group that files a request for an adjudicatory hearing must include affidavits from each person of the group stating their intent to be a part of the group and to be represented by the group's authorized representative. The request must comply with all other requirements of 310 CMR 1.01.

The issues raised in the request for adjudicatory hearing are limited to the subject matter of this Decision and are limited further to the issues raised during the public comment period. If the issue was not raised during the public comment period, the issue may be raised upon showing that it was not reasonably possible with due diligence to have raised such matter during the public comment period or for good cause shown.

The hearing request along with a valid check payable to the Commonwealth of Massachusetts in the amount of one hundred dollars ($100.00) and a completed Adjudicatory Hearing Fee Transmittal found at http://www.mass.gov/eea/docs/dep/service/adr/adjherfm.doc must be mailed to:

Commonwealth of Massachusetts
Department of Environmental Protection
P.O. Box 4062
Boston, Massachusetts 02211

An aggrieved person or a ten persons group shall send a copy of the request for an adjudicatory hearing by first class mail to the Applicant and MassDEP's contact person listed in the Decision.

The request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver as described below.

The filing fee is not required if the appellant is a city or town (or municipal agency), county, district of the Commonwealth of Massachusetts, the Massachusetts Bay Transportation Authority, federally recognized Indian tribe housing authority, effective January 14, 1994, or a municipal housing authority. MassDEP may waive the adjudicatory hearing filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, a request for the waiver of the fee and an affidavit setting forth the facts believed to support the claim of undue financial hardship as specified in 310 CMR 4.06(2).

Should you have any questions concerning this Approval, please contact Elza Bystrom by telephone at (508)946-2856, or in writing at the letterhead address.

Very truly yours,

This final document copy is being provided to you electronically by the Department of Environmental Protection. A signed copy of this document is on file at the DEP office listed on the letterhead.

Thomas Cushing, Chief
Permit Section
Bureau of Air and Waste

ecc: Rochester Board of Health
Rochester Fire Department
Covanta SEMASS – G. Drew, D. Peters, J. Duggan
Tetra Tech – W. Campbell, S. Babcock
MassDEP/Boston – Y. Tian, M. Levenson
MassDEP/SERO – P. Russell, M. Poudrier, E. Bystrom, J. Paino