COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHEAST REGIONAL OFFICE
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FINAL AIR QUALITY OPERATING PERMIT

(Replacement page date: 6/4/08)

Issued by the Massachusetts Department of Environmental Protection ("The Department") pursuant to its authority under M.G.L. c. 111, §142B and §142D, 310 CMR 7.00 et seq., and in accordance with the provisions of 310 CMR 7.00: Appendix C.

ISSUED TO ["the Permittee"]:

SEMASS Partnership
141 Cranberry Highway
West Wareham, Massachusetts 02576

INFORMATION RELIED UPON:

Application No. 4V95055 and 4M08017
Transmittal No. 107463 and W224341

FACILITY LOCATION:

SEMASS Resource Recovery Facility
141 Cranberry Highway
Rochester, Massachusetts 02770

FACILITY IDENTIFYING NUMBERS:

SSEIS ID: 1200001
FMF FAC NO. 131580
FMF RO NO. 54183
SIC Code: 4953

NATURE OF BUSINESS:

Municipal Waste Combustion & Electric Power Generation

FACILITY CONTACT PERSON:

Name: Mr. William K. Campbell
Title: Environmental Scientist
Phone: (508) 291-4400

RESPONSIBLE OFFICIAL:

Name: Mr. Mark Davis
Title: Facility Manager

This operating permit shall expire on February 12, 2009.

For the Department of Environmental Protection, Bureau of Waste Prevention

(Replacement page dated 6/4/08) (Operating Permit signed 2/12/04)
Regional Director Date

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SPECIAL CONDITIONS FOR OPERATING PERMIT

1. PERMITTED ACTIVITIES

In accordance with the provisions of 310 CMR 7.00: Appendix C, and applicable rules and regulations, the Permittee is authorized to operate air emission units as shown in Table 1 and exempt, and insignificant activities as described in 310 CMR 7.00: Appendix C(5)(h) and (i). The units described in Table 1 are subject to the terms and conditions shown in Sections 4, 5, and 6, and to other terms and conditions as specified in this permit. Emissions from the exempt activities shall be included in the total facility emissions for the emission-based portion of the fee calculation described in 310 CMR 4.00 and this permit.

DESCRIPTION OF FACILITY AND OPERATIONS

The SEMASS resource recovery facility (SEMASS) converts municipal solid waste (MSW) to steam and electricity, and offers MSW disposal for participating communities in southeastern Massachusetts. The facility is located on a 95-acre site on Route 28 in Rochester. It is designed to receive MSW, magnetically separate and shred it to produce processed refuse fuel (PRF), which is fired in specially designed waterwall boilers.

The original plant, referred to as the "Base Plant" included Emission Units No. 1 and 2, a condensing turbine generator, air-cooled condenser, water-cooled auxiliary condenser, air pollution control equipment, a switchyard, and auxiliary support systems. Emission Unit No. 3 was constructed at a later date and is termed the "SEMASS Expansion" plant. Emission Unit No. 3 also includes a condensing turbine generator, air-cooled condenser, air pollution control equipment, a switchyard, and auxiliary support systems

SEMASS consists of three boilers, each rated at a design heat rate input of 375 million Btu per hour (MMBtu/hr). The design PRF feed rate to each boiler is 41.67 tons per hour based on the lowest anticipated PRF heating value of 4,500 Btu per pound (Btu/lb). Combustion temperatures in the boilers and the furnace design ensure exposure of gases to a minimum temperature of 1,800ºF for one second after secondary air injection.

MSW is delivered by truck and rail to an enclosed solid waste receiving building where it is unloaded onto a tipping floor. The MSW is processed by four horizontal-shaft hammermills.

All three Emission Units share a single, 345-foot stack containing three separate flues. The air pollution control systems for Emission Units No. 1 and 2 consist of spray dryer absorbers followed by electrostatic precipitators (ESPs), a compact hybrid particulate collector (COHPAC) unit and an activated carbon injection system. Emission Unit No. 3 operates with a spray dryer absorber followed by a fabric filter/baghouse. Emission Unit No. 3 is also equipped with selective non-catalytic reduction (SNCR) with a urea injection system to control emissions of nitrogen oxides (NO_x).

2. EMISSION UNIT IDENTIFICATION

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

Table 1

Emission Unit (EU)	Description of Emission Unit	EU Design Capacity	Pollution Control Device (PCD)
EU-1	Municipal Waste Combustors (Refuse-Derived Fuel [RDF] Incinerator/Water Wall Boiler) Riley Stoker Model No. VRC-10 (modified) (to Stack No. 1)	375,000,000 Btu/hr (Maximum steam load level as defined in 310 CMR 7.08(2)(f)1)	Spray Dryer Absorber (SDA) with Calcium Hydroxide Slurry Atomization Manufacturer: Joy Technologies Model F-160 Five-Field Electrostatic Precipitator (ESP) Manufacturer: Joy Technologies Model BSH Activated Carbon Injection System Manufacturer: Norit Low-Pressure, High-Volume Pulse Jet, Fabric Filter Bag, Compact Hybrid Particulate Collector (COHPAC) Manufacturer: Hamon-Research Cottrell
EU-2		375,000,000 Btu/hr (Maximum steam load level as defined in 310 CMR 7.08(2)(f)1)	
EU-3	Municipal Waste Combustor (Refuse-Derived Fuel [RDF] Incinerator/Water Wall Boiler) Riley Stoker Model No. VRC-10 (modified) (to Stack No. 1)	375,000,000 Btu/hr (Maximum steam load level as defined in 310 CMR 7.08(2)(f)1)	Spray Dryer Absorber (SDA) with Calcium Hydroxide Slurry Atomization Manufacturer: Joy Technologies Model F-160 Pulse-Jet, 12-Module, Fabric Filter/Baghouse Manufacturer: Joy Technologies Selective Non-Catalytic Reduction (SNCR) with Urea Injection Manufacturer: Nalco Fuel Tech
EU-14	No. 2 Fuel Oil Storage Tank	500,000 gallons	None

Key to terms:

Btu/hr = British thermal units per hour
lb steam/hr = pounds of steam per hour

3. IDENTIFICATION OF EXEMPT ACTIVITIES

The following are considered exempt activities in accordance with the criteria contained in 310 CMR 7.00: Appendix C(5)(h):

Table 2

Description of Current Exempt Activities	Reason
The list of current exempt activities is contained in the Operating Permit application and shall be updated by the Permittee to reflect changes at the facility over the permit term. An up-to-date copy of the exempt activities list shall be kept on-site at the facility and a copy shall be submitted to the Department's Regional Office.	310 CMR 7.00, Appendix C(5)(h)

4. APPLICABLE REQUIREMENTS

A. EMISSION LIMITS AND RESTRICTIONS

The Permittee is subject to the emission limits/restrictions as contained in Table 3 below:

Table 3

Emission Unit (EU)	Fuel	Pollutant	Restrictions	Emission Limit/Standard[(1)]	Applicable Regulations and/or Approval No.
EU-1 EU-2	PRF	SO_2	N/A	≤ 29 ppmvd @ 12% CO_2[(2)] (dry basis) ***or*** 75% reduction by weight or volume, whichever is less stringent (24-hour geometric mean)	310 CMR 7.08(2)(f)2 4B00058
				0.23 lb/MMBtu 104.1 lb/hr	4I87182
		PM		≤ 27 mg/dscm @ 7% O_2 (dry basis)	310 CMR 7.08(2)(f)2 4B00058
				0.03 gr/dscf @ 12% CO_2 26.4 lb/hr	4I87182
		NO_x		≤ 250 ppmvd @ 12% CO_2[(2)] (dry basis, 24-hour arithmetic average)	310 CMR 7.08(2)(f)3 4B00058
				0.50 lb/MMBtu 208.3 lb/hr	4I87182
		CO		≤ 200 ppmvd @ 12% CO_2[(2)] (dry basis, 24-hour arithmetic average)	310 CMR 7.08(2)(f)1.a.i 4B00058
				0.50 lb/MMBtu 208.3 lb/hr	4I87182

Table 3 (continued)

Emission Unit (EU)	Fuel	Pollutant	Restrictions	Emission Limit/Standard[(1)]	Applicable Regulations and/or Approval No.
EU-1 EU-2	PRF	Pb	N/A	≤ 0.440 mg/dscm @ 7% O_2 (dry basis)	310 CMR 7.08(2)(f)2 4B00058
				0.001 lb/MMBtu 0.40 lb/hr	4I87182
		HCl		≤ 29 ppmvd @ 7% O_2 (dry basis) ***or*** 95% reduction by weight or volume, whichever is less stringent	310 CMR 7.08(2)(f)2 4B00058
				28.7 lb/hr	4I87182
		Hg		≤ 0.028 mg/dscm @ 7% O_2 (dry basis)[(3)]	310 CMR 7.08(2)(f)2 4B00058
				0.00034 lb/MMBtu 0.127 lb/hr	4I87182
		Cd		≤ 0.040 mg/dscm @ 7% O_2 (dry basis)	310 CMR 7.08(2)(f)2 4B00058
		Fluorides		0.001 lb/MMBtu 0.42 lb/hr	4I87182
		Dioxin/-Furan		≤ 60 ng/dscm @7% O_2 (dry basis)	310 CMR 7.08(2)(f)2 4B00058
EU-3		SO_2		≤ 29 ppmvd @ 7% O_2 (dry basis) ***or*** 80% reduction by weight or volume, whichever is less stringent (24-hour geometric mean)	4I98028 4B00058
				0.23 lb/MMBtu 104.1 lb/hr	4I87182

Table 3 (continued)

Emission Unit (EU)	Fuel	Pollutant	Restrictions	Emission Limit/Standard(1)	Applicable Regulations and/or Approval No.
EU-3	PRF	PM	N/A	≤ 27 mg/dscm @ 7% O_2 (dry basis)	310 CMR 7.08(2)(f)2 4B00058
				0.012 gr/dscf @ 7% O_2	4I98028
				0.015 gr/dscf @ 12% CO_2 13.2 lb/hr	4I87182
		NO_x		≤ 180 ppmvd @ 7% O_2 (dry basis, 24-hour arithmetic average)	4I98028 4B00058
				0.50 lb/MMBtu 208.3 lb/hr	4I87182
		CO		≤ 150 ppmvd @ 7% O_2 (dry basis, 24-hour arithmetic average)	4I98028 4B00058
				0.50 lb/MMBtu 208.3 lb/hr	4I87182
		Pb		≤ 0.440 mg/dscm @ 7% O_2 (dry basis)	310 CMR 7.08(2)(f)2 4B00058
				0.0005 lb/MMBtu 0.20 lb/hr	4I87182
		HCl		≤ 25 ppmvd @ 7% O_2 (dry basis) ***or*** 95% reduction by weight or volume, whichever is less stringent	4I98028 4B00058
				28.7 lb/hr	4I87182

Table 3 (continued)

Emission Unit (EU)	Fuel	Pollutant	Restrictions	Emission Limit/Standard[(1)]	Applicable Regulations and/or Approval No.
EU-3	PRF	Hg	N/A	≤ 0.028 mg/dscm @ 7% O_2 (dry basis)[(3)]	310 CMR 7.08(2)(f)2 4B00058
				0.00034 lb/MMBtu 0.127 lb/hr	4I87182
		Cd		≤ 0.040 mg/dscm @ 7% O_2 (dry basis)	310 CMR 7.08(2)(f)2 4B00058
		Fluorides		0.001 lb/MMBtu 0.42 lb/hr	4I87182
		Dioxin/-Furan		≤ 30 ng/dscm @7% O_2 (dry basis)	310 CMR 7.08(2)(f)2 4B00058
EU-1 EU-2 EU-3		Opacity		≤ 10% (6-minute average)	310 CMR 7.08(2)(f)2
		PM		0.18 g/dscm (0.08 gr/dscf) @ 12% CO_2	40 CFR 60, Subpart E
				Emit no particles with a dimension ≥ 100 microns (µm)	310 CMR 7.06(2)(c)
		N/A	Combustion tempera-tures and furnace design shall ensure exposure of gases to a minimum temperature of 1,800ºF for 1 second after secondary air injection	N/A	4I87182

Table 3 (continued)

Emission Unit (EU)	Fuel	Pollutant	Restrictions	Emission Limit/Standard[1]	Applicable Regulations and/or Approval No.
EU-1 EU-2 EU-3	PRF		Maximum unit load and PM control device inlet temperature – **Refer to Note No. 4**	N/A	310 CMR 7.08(2)
Facility-Wide		Fugitive Ash	N/A	Visible emissions ≤ 5% for the observation period[5]	310 CMR 7.08(2)(f)5
EU-1 EU-2	Used Oil[6]	Total Halogens PCBs, S	≤ 6,000 gallons/12-month rolling period (total for both units)	Total Halogens: ≤1,000 ppm PCBs: < 50 ppm S: ≤ 0.55 lb/MMBtu	310 CMR 7.05(8) 4I90152
EU-1 EU-2 EU-3	No. 2 Fuel Oil	SO_2[7]	Maximum fuel oil usage -- **Refer to Note No. 8**	0.30 lb/MMBtu 112.5 lb/hr	4I87182
				0.80 lb/MMBtu	40 CFR 60, Subpart D
		PM[7]		0.03 lb/MMBtu 11.25 lb/hr	4I87182
				0.10 lb/MMBtu	40 CFR 60, Subpart D
		NO_x[7]		0.30 lb/MMBtu 112.5 lb/hr	4I87182
				0.20 lb/MMBtu	40 CFR 60, Subpart Db

Table 3 (continued)					
Emission Unit (EU)	**Fuel**	**Pollutant**	**Restrictions**	**Emission Limit/Standard(1)**	**Applicable Regulations and/or Approval No.**
EU-1 EU-2 EU-3	No. 2 Fuel Oil	CO(7)	Maximum fuel oil usage -- **Refer to Note No. 8**	0.50 lb/MMBtu 208.3 lb/hr	4I87182
		Opacity(7)		≤ 20% opacity except for one 6-minute period per hour of ≤ 27% opacity	40 CFR 60, Subpart D
				Exclusive of uncombined water, not to exceed 20% for more than 2 minutes in any 1 hour, provided that at no time shall the opacity exceed 40%	310 CMR 7.06(1)(b)
		Smoke(7)		Not to equal or exceed No. 1 of the Chart(9), for a period > 6 minutes in any 1 hour, provided that at no time ≥ No. 2 of the Chart	310 CMR 7.06(1)(a)
		Sulfur in Fuel	N/A	Not to exceed 0.15 lb/MMBtu (≈ 0.26% by weight)	4I87182

Table 3 Notes:

1. Emission limits apply at all times except during periods of startup, shutdown, or malfunction as defined in 40 CFR 60.58b. Unless otherwise indicated, emission rates are given on a "per unit" basis.

2. Emissions from Units No. 1 and 2 measured by CEMS are corrected to 12% CO_2 instead of 7% O_2. Equivalency, as allowed by 40 CFR 60.58(b)(4), was demonstrated in Emission Control Plan Application No. 4B00058, dated September 26, 2000, as revised on October 13, 2000.

3. In accordance with 310 CMR 7.08(2), the indicated emission limit for Hg shall be based on the average of four (4) quarterly compliance tests per 12-month rolling period, but shall not exceed 0.080 mg/dscm in any quarterly test.

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

   (a) cause, suffer, allow or permit a municipal waste combustor unit to operate at a load level greater than 110 percent of the maximum demonstrated municipal waste combustor unit load calculated in 4-hour block arithmetic averages, measured during the most recent dioxin/furan compliance test in which compliance is achieved; and,

Table 3 Notes (continued):

(b) cause, suffer, allow or permit a municipal waste combustor unit to operate at a temperature, measured at the PM control device inlet, exceeding 17ºC (30ºF) above the maximum demonstrated PM control device temperature, calculated in 4-hour block arithmetic averages, measured during the most recent dioxin/furan compliance test in which compliance is achieved.

During any nine month dioxin/furan compliance test and the 2 weeks preceding the each nine month dioxin/furan compliance test, municipal waste combustor unit load limit and PM control device temperature limitations are not applicable.

Municipal waste combustor unit load limit and PM control device temperature limitations may be waived, if prior approval is granted by the Department, 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.

5. 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 (i.e., nine minutes per 3-hour period). This emission limit does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the emission limit does apply to visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems. This subsection does not apply during maintenance and repair of ash conveying systems. Maintenance and repair of ash conveying systems must be done in accordance with best management practices.

6. Onsite-generated specification used oil only to be burned.

7. When firing No. 2 fuel oil **only**. When firing PRF and No. 2 fuel oil combined, the PRF emission limitations apply.

8. In accordance with Approval No. 4I87182, the use of No. 2 fuel oil shall be limited to an annual capacity factor of ≤ 10% per boiler. Usage shall be limited to 328,500 MMBtu heat input per boiler on a 12-month rolling period basis under all operating scenarios. Where No. 2 fuel oil is the only fuel being fired, each unit's firing rate shall not exceed 2,400 gallons per hour.

9. "Chart" means the Ringelmann Scale for grading density of smoke, as published by the U.S. Bureau of Mines and referred to as Information Circular No. 8333, or any smoke inspection guide approved by the Department.

Table 3 Key to Terms:

PRF	= processed refuse fuel
SO_2	= sulfur dioxide
PM	= particulate matter
NO_x	= oxides of nitrogen
CO	= carbon monoxide
Pb	= lead
HCl	= hydrochloric acid
Hg	= mercury
Cd	= cadmium
g	= grams
ppmvd	= parts per million by volume, dry basis
lb/hr	= pounds per hour
gr/dscf	= grains per dry standard cubic foot
lb/MMBtu	= pounds per million Btu
mg/dscm	= milligrams per dry standard cubic meter
%	= percent
ºC	= degrees Celsius
ºF	= degrees Fahrenheit
<	= less than
>	= greater than
≤	= less than or equal to
≥	= greater than or equal to
≈	= approximately equal to

B. COMPLIANCE DEMONSTRATION

The Permittee is subject to the monitoring, testing, record keeping, and reporting requirements as contained in Tables 4, 5, and 6 below and 310 CMR 7.00 Appendix C (9) and (10), as well as applicable requirements contained in Table 3:

Table 4

Emission Unit (EU)	Monitoring/Testing Requirements
EU-1 EU-2	In accordance with 310 CMR 7.08(2)(g)1.d and Approval No. 4B00058, for municipal waste combustor 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, measure and calculate the carbon (or equivalent) usage rate following the procedures specified in 40 CFR 60.58(m) effective December 19, 1995 and as amended October 4, 1997. **(See Note 1)**.
	In accordance with 310 CMR 7.08(2)(g)3 and Approval No. 4B00058, for municipal waste combustor unit(s) which employ carbon injection (or equivalent) Hg emission control system, 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 tests shall be conducted as follows: (a) The optimization tests shall be performed during the initial performance test, after a change in carbon (or equivalent), upon request by the Department, upon request by the facility, or annually if required under 310 CMR 7.08(2)(g)4. (b) If there are identical municipal waste combustor units at the municipal waste combustor plant, then optimization tests may be performed on one unit, and the resulting parameters applied to the other unit(s) which are identical to that unit at that plant. (c) Within 30 calendar days of the conclusion of any optimization tests, the facility shall submit to the Department for approval a proposed optimized carbon (or equivalent) feed rate which 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 the Department shall be used to operate the carbon injection (or equivalent) Hg control system until the next optimization test is performed and the feed rate approved.
	In accordance with Approval No. 4I90152, monitor the quantity of specification used oil burned in all boilers. Prior to burning onsite-generated used oil, the Permittee shall demonstrate compliance with the standards and limits listed in Table 3 via independent testing/-analysis. All testing shall be performed in accordance with previously-issued Recycling Permit No. 0174 dated December 18, 1989.

Table 4 (continued)

Emission Unit (EU)	Monitoring/Testing Requirements
	In accordance with Approval No. 4I87182, the Permittee shall install, operate, and maintain continuous emissions monitoring systems (CEMS) for SO_2, NO_x, CO, and O_2; and continuous opacity monitoring systems (COMS) for opacity; and associated recording systems.
	Opacity shall be determined in accordance with 40 CFR 60, Appendix A, Method 9, in the event of a COMS malfunction. This method shall also apply to any detached plumes.
	In accordance with Approval No. 4I87182, the Permittee shall monitor the following: 1. PRF feed rate for each boiler. The PRF feed rate does not have to be directly measured but may be extrapolated utilizing scale house, rail car unloader scale, and boiler operating data to define the PRF feed rate per boiler for each hour of the week. 2. No. 2 fuel oil burning rate for each boiler. 3. Temperature, utilizing sufficient sensors to adequately indicate the furnace temperature profile after secondary air injection.
EU-1 EU-2 EU-3	In accordance with 310 CMR 7.08(2)(g)1.a and 1.b and Approval No. 4B00058, the facility shall conduct compliance tests for dioxin/furan emissions according to one of the schedules specified below: (a) Conduct compliance testing for dioxin/furan emissions on all municipal waste combustor unit(s) on a nine month basis; or, (b) for municipal waste combustor 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 nanograms per dry standard cubic meter total mass (ng/dscm), corrected to 7 percent oxygen, the facility 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 municipal waste combustor plant. Every nine months a different unit at the municipal waste combustor 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 facility may continue to conduct compliance testing on only one unit per nine month basis so long as the dioxin/furan emissions remain less than or equal to 7 ng/dscm @ 7% O_2. If any nine month compliance test indicates 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 tests for all units at the plant over a 27-month period indicate dioxin/furan emissions less than or equal to the 7 ng/dcsm @ 7% O_2.

Table 4 (continued)

Emission Unit (EU)	Monitoring/Testing Requirements
EU-1 EU-2 EU-3	In accordance with 310 CMR 7.08(2)(g)2 and Approval No. 4B00058, following the date that the initial compliance test for Hg is completed, compliance testing for Hg shall be conducted on all municipal waste combustor unit(s) on a quarterly basis. Compliance with the emissions limit specified in 310 CMR 7.08(2)(f)2 shall be based on the average of four quarterly compliance tests per rolling twelve months but shall not exceed 0.080 mg/dscm in any quarterly test. If compliance with the Hg emission limit has been achieved in each quarter for eight consecutive quarters, the facility may elect to perform compliance testing on a nine month basis. Any municipal waste combustor unit(s) which 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.
	In accordance with 310 CMR 7.08(2)(g)6 and Approval No. 4B00058, the facility shall conduct compliance testing for all designated pollutants every nine months for each municipal waste combustor unit(s). Compliance testing for dioxin/furan and Hg shall be as specified in 310 CMR 7.08(2)(g)1 and 2.
	In accordance with 310 CMR 7.08(2)(g)5.a and 5.b and Approval No. 4B00058,continuous emissions monitoring systems (CEMS) which monitor NO_x, SO_2, and operating practices parameters (e.g., CO, unit load, and PM control device inlet temperature) shall obtain at a minimum valid continuous emissions monitoring systems data for 75% of the hours per day (18 hours per day) for 75% of the days per month (23 days per month for a 30-day month) that a municipal waste combustor unit is combusting municipal solid waste continuously (24 hours per day) and valid CEMS data must be obtained for 90% of the hours per quarter that the municipal waste combustor unit is combusting municipal solid waste. 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). **(See Note 2)**.
	In accordance with Department letter dated January 22, 1993 Testing Requirements, the Permittee shall conduct air emission and ash testing every nine (9) months. The air emission testing is to include the following contaminants: (a) Metals – Anitimony, arsenic, beryllium, cadmium, chromium, copper, lead, manganese, mercury, molybdenum, nickel, selenium, tin, vanadium, and zinc. (b) Particulate matter. (c) Sulfur dioxide. (d) Hydrogen chloride (hydrochloric acid). (e) Carbon monoxide. (f) Nitrogen oxides. (g) Dioxin/furan.

Table 4 (continued)	
Emission Unit (EU)	**Monitoring/Testing Requirements**
EU-1 EU-2 EU-3	In accordance with Approval No. 4I87182, obtain fuel sulfur content and heating value data for all No. 2 fuel oil deliveries.
	In accordance with 310 CMR 7.13(1), any person owning, leasing, operating, or controlling a facility for which the Department has determined that stack testing is necessary to ascertain compliance with the Department's regulations shall cause such stack testing: (a) to be conducted by a person knowledgeable in stack testing; (b) to be conducted in accordance with procedures contained in a test protocol which has been approved by the Department; (c) to be in the presence of a representative of the Department when such is deemed necessary; and, (d) to be summarized and submitted to the Department with analyses and report within such time as agreed in the approved test protocol.
Facility-Wide	Monitor operations such that information may be compiled for the annual Source Registration required by 310 CMR 7.12.
	Emissions compliance testing (stack testing), when requested by the Department or U.S. EPA, shall be conducted in accordance with 310 CMR 7.13 and 40 CFR 60 utilizing appropriate EPA reference methods.

Table 4 Notes:

1. At the SEMASS facility, carbon injection is used solely to facilitate control of mercury (Hg) emissions.

2. In accordance with 40 CFR 60.58b(a)(1)(iii), for the purpose of compliance with the CO emission limits in 40 CFR 60.53b(a), if a loss of boiler water level control (e.g., boiler waterwall tube failure) or a loss of combustion air control (e.g., loss of combustion air fan , induced draft fan, combustion grate bar failure) is determined to be a malfunction, the duration of the malfunction period is limited to 15 hours per occurrence.

In accordance with 310 CMR 7.00, Appendix C(10)(b), the Permittee shall maintain onsite the following records for 5 years from the date of generation, and these records shall be readily available to the Department and/or U.S. EPA personnel.

Table 5

Emission Unit (EU)	Record Keeping Requirements
EU-1 EU-2	In accordance with 310 CMR 7.08(2)(h)4 and Approval No. 4B00058, for municipal waste combustor unit(s) that apply carbon (or equivalent) for Hg or dioxin/furan control, maintain the following records: (a) The average carbon (or equivalent) mass feed rate (in lb/hr) estimated as required under 40 CFR 60.58(m)(1)(i) effective December 19, 1995, and as amended October 24, 1997, during the initial Hg performance test and all subsequent compliance tests, with supporting calculations. (b) The average carbon (or equivalent) mass feed rate (in lb/hr) estimated for each hour of operation as required under 40 CFR 60.58(m)(1)(ii) effective December 19, 1995, and as amended October 24, 1997, during the initial dioxin/furan performance test and all subsequent compliance tests, with supporting calculations. (c) The average carbon (or equivalent) mass feed rate (in lb/hr) estimated for each hour of operation as required under 40 CFR 60.58(m)(3)(ii) effective December 19, 1995, and as amended October 24, 1997, with supporting calculations. (d) The total carbon (or equivalent) usage for each calendar quarter estimated as specified under 40 CFR 60.58b(m)(3) effective December 19, 1995, and as amended October 24, 1997, with supporting calculations. (e) The carbon (or equivalent) injection system operating data for the parameter(s) that are the primary indicator(s) of carbon (or equivalent) feed rate.
	In accordance with 310 CMR 7.08(2)(h)13 and Approval No. 4B00058, for municipal waste combustor unit(s) that apply carbon (or equivalent) for Hg or dioxin/furan control, maintain the following records: (a) Identification of the calendar dates when the average carbon (or equivalent) mass feed rates recorded under 310 CMR 7.08(2)(h)4.c were less than either of the hourly carbon (or equivalent) feed rates estimated during compliance tests for Hg or dioxin/furan emissions and recorded under paragraphs 310 CMR 7.08(2)(h)4.a or 4.b of this Section, respectively, with reasons for such feed rates and a description of corrective actions taken. (b) Identification of the calendar dates when the carbon injection (or equivalent) system operating parameter(s) that are the primary indicator(s) or carbon (or equivalent) mass feed rate(s) recorded under 310 CMR 7.08(2)(h)4.e are below the level(s) estimated during the compliance tests as specified in 40 CFR 60.58b(m)(1)(i) and (ii) effective December 19, 1995, and as amended October 24, 1997, with reasons for such occurrences and a description of corrective actions taken.

Table 5 (continued)	
Emission Unit (EU)	**Record Keeping Requirements**
EU-1 EU-2	In accordance with Approval No. 4I90152, monitor the quantity of specification used oil burned in all boilers. Prior to burning onsite-generated used oil, the Permittee shall demonstrate compliance with the standards and limits listed in Table 3 via independent testing/-analysis. All recordkeeping shall be performed in accordance with previously-issued Recycling Permit No. 0174 dated December 18, 1989.
EU-1 EU-2 EU-3	In accordance with 310 CMR 7.08(2)(h)10 and Approval No. 4B00058, for the initial dioxin/-furan performance test and all subsequent dioxin/furan compliance tests recorded under 310 CMR 7.08(2)(h), the maximum demonstrated municipal waste combustor load and maximum PM control device temperature (for each PM control device) shall be recorded along with supporting calculations.
	In accordance with 310 CMR 7.08(2)(h)2 and Approval No. 4B00058, record the emission concentrations and operating parameters measured using continuous emissions monitoring systems (CEMS). The measurements specified below shall be recorded and shall be available for submittal to the Department or for onsite review by an inspector: (a) All 6-minute average opacity levels as specified under 40 CFR 60.58b(c) effective December 19, 1995, and as amended October 24, 1997, including the highest level measured. (b) All 1-hour average SO_2 emission concentrations as specified under 40 CFR 60.58b(e) effective December 19, 1995, and as amended October 24, 1997. (c) All 1-hour average NO_x emission concentrations as specified under 40 CFR 60.58b(h) effective December 19, 1995, and as amended October 24, 1997. (d) All 1-hour average CO emission concentrations, municipal waste combustor unit load measurements, and PM control device inlet temperatures as specified under 40 CFR 60.58b(i) effective December 19, 1995, and as amended October 24, 1997. (e) All 24-hour daily geometric average SO_2 emission concentrations and all 24-hour daily average percent reductions in SO_2 emissions as applicable, as specified under 40 CFR 60.58b(e) effective December 19, 1995, and as amended October 24, 1997, including the highest level recorded. (f) All 24-hour daily arithmetic average NO_x emission concentrations as specified under 40 CFR 60.58b(h) effective December 19, 1995, and as amended October 24, 1997, including the highest level recorded. (g) All 24-hour daily arithmetic average CO emission concentrations as specified under 40 CFR 60.58b(i) effective December 19, 1995, and as amended October 24, 1997, including the highest level recorded. (h) All 4-hour block arithmetic average municipal waste combustor unit load levels (steam flow) and PM control device inlet temperatures as specified under 40 CFR 60.58b(i) effective December 19, 1995, and as amended October 24, 1997, including the highest level recorded.

Table 5 (continued)

Emission Unit (EU)	Record Keeping Requirements
EU-1 EU-2 EU-3	In accordance with 310 CMR 7.08(2)(h)3 and Approval No. 4B00058, record the calendar dates when any of the average emissions concentrations or percent reductions, or operating parameters recorded under Section 7.08(2)(h)2, exceed the applicable limits, with detailed specific reasons for such exceedances and a description of corrective actions taken.
	In accordance with 310 CMR 7.08(2)(h)5 and Approval No. 4B00058, 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 the corrective actions taken: (a) SO_2 emissions data. (b) NO_x emissions data. (c) CO emissions data. (d) Municipal waste combustor unit load data, including PM control device inlet temperature data.
	In accordance with 310 CMR 7.08(2)(h)6 and Approval No. 4B00058, record each occurrence that SO_2 emissions data, NO_x emissions data, or operational data (e.g., CO emissions, unit load, and PM control device temperature) have been excluded from the calculation of average emission concentrations or parameters, along with detailed and specific reasons for excluding the data.
	In accordance with 310 CMR 7.08(2)(h)7 and Approval No. 4B00058, record the results of daily drift tests and quarterly accuracy determinations for SO_2, NO_x, and CO CEMS, as required under 40 CFR 60, Appendix F, Procedure 1.
	In accordance with 310 CMR 7.08(2)(h)8 and Approval No. 4B00058, record each occurrence of startup, shutdown, or malfunction, including the specific reason for each occurrence, date, time, and unit involved. Average emissions concentrations or percent reductions, or operating parameters recorded under Section 7.08(2)(h)2 shall be recorded during startup, shutdown, or malfunction.
	In accordance with 310 CMR 7.08(2)(h)11 and Approval No. 4B00058, maintain records of the municipal waste combustor 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. Maintain records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have completed the EPA municipal waste combustor operator training course, if required.

Table 5 (continued)	
Emission Unit (EU)	**Record Keeping Requirements**
EU-1 EU-2 EU-3	In accordance with 310 CMR 7.08(2)(h)12 and Approval No. 4B00058, maintain records showing the names of persons who have completed a review of the operating manual as required by Section 7.08(2)(f)6.d, including the date of the initial review and subsequent annual reviews.
	In accordance with 310 CMR 7.08(2)(h) and Approval No. 4B00058, maintain records of the information specified in the Section, as applicable, for each municipal waste combustor unit, for a period of at least 5 years. Such records shall indicate the calendar date of each record and shall be made available to Department personnel upon request.
	In accordance with Approval No. 4I87182, maintain records on oil consumption and heating value on a per boiler basis.
	In accordance with 310 CMR 7.08(2)(g)6, the Permittee shall conduct compliance testing for all designated pollutants every nine months for each municipal waste combustor unit(s). In accordance with 310 CMR 7.08(2)(h), all records of such compliance testing shall be retained at the facility for at least five years.
EU-14	In accordance with 40 CFR 60, Subpart Kb, §116b(b), keep readily accessible records showing the dimensions of the storage vessel and an analysis showing the capacity of the storage vessel.
Facility-Wide	Maintain records to facilitate compilation of data for the annual Source Registration required by 310 CMR 7.12. These records must be maintained for a period of five (5) years from the date of the Source Registration submittal.
	Maintain records of any emissions compliance testing done in accordance with 310 CMR 7.13 and 40 CFR 60, Appendix A, if such testing is required by the Department.

Table 6	
Emission Unit (EU)	**Reporting Requirements[1]**
	In accordance with 310 CMR 7.08(2)(h)9 and Approval No. 4B00058, the results of the initial performance tests and all 9-month compliance tests conducted to determine compliance with the PM, opacity, Cd, Pb, Hg, dioxin/furan, HCl, and fugitive ash emission limits shall be recorded along with supporting calculations and submitted to the Department within 90 days after the test. In addition, the results of the quarterly Hg compliance tests shall also be recorded and submitted to the Department within 90 days after the test.
	In accordance with 310 CMR 7.08(2)(i) and Approval No. 4B00058, the facility shall submit an initial performance report as well as an annual report of the information specified in 310 CMR 7.08(2)(i)1, as applicable. The facility which elects to follow the compliance testing schedule specified in 310 CMR 7.08(2)(g)1.b shall follow the procedures specified in Section 7.08(2)(i)1 for reporting the selection of this schedule. **Annual Reporting Requirements[2]** – The information specified in (a) through (g) below shall be reported: (a) 310 CMR 7.08(2)(h)2.a, and 2.e through 2.h for the highest emission levels recorded. (b) 310 CMR 7.08(2)(h)4.a and 4.b. (c) 310 CMR 7.08(2)(h)5 and 6. (d) 310 CMR 7.08(2)(h)8 through 10. (e) Summary of (a) through (d) for the previous year. (f) The performance evaluation of the CEMS using the applicable performance specifications in 40 CFR 60, Appendix B. (g) A notification of intent to begin the reduced dioxin/furan compliance testing schedule specified in Section 7.08(2)(g)1.b during the following calendar year. As required by 310 CMR 7.08(2)(i), the facility shall submit semi-annual reports that include 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[3]** – The information specified in (a) through (e) below shall be reported: (a) 310 CMR 7.08(2)(h)2.a, and 2.e through 2.h for each date recorded in 310 CMR 7.08(2)(h)3. (b) 310 CMR 7.08(2)(h)3. (c) 310 CMR 7.08(2)(h)4.c. (d) 310 CMR 7.08(2)(h)9[4]. (e) 310 CMR 7.08(2)(h)13.
	In accordance with 310 CMR 7.08(2)(i) and Approval No. 4B00058, in meeting the requirements of 310 CMR 7.08(2)(i)1 and 310 CMR 7.08(2)(i)2, the facility shall report the information in a format determined by the Department that is designed to be understandable and informative to the public.

Table 6 (continued)	
Emission Unit (EU)	**Reporting Requirements[(1)]**
EU-1 EU-2 EU-3	In accordance with Approval No. 4I87182, prepare quarterly reports on No. 2 fuel oil consumption and heating value on a per boiler basis. Such reports shall include Btu input per month and for 12-month rolling period for each month, and shall be postmarked by the 30th day following the end of each calendar quarter.
Facility-Wide	In accordance with 310 CMR 7.12, submit annually information pertinent to the nature and amounts of emissions on forms provided by the Department, and in addition, ensure that the facility is available for inspection by Department and/or U.S. EPA personnel at any reasonable time.
	All notifications and reporting required in accordance with Section No. 25 of this Operating Permit shall be sent directly to: Department of Environmental Protection Bureau of Waste Prevention Southeast Regional Office 20 Riverside Drive Lakeville, MA 02347 ATTN: Chief, Permit Section Telephone: (508) 946-2770 Fax: (508) 947-6557
	In accordance with 310 CMR 7.13(1) and 7.13(2), the Permittee, if determined by the Department that stack testing is necessary to ascertain compliance with the Department's regulations shall cause such stack testing to be summarized and submitted to the Department as prescribed in the agreed-to test protocol.
	In accordance with 310 CMR 7.00, Appendix C(10)(a), the Permittee, upon the Department's request shall transmit any record relevant to the Operating Permit within 30 days of the request by the Department or within a longer time period if approved in writing by the Department. The record shall be transmitted on paper, on computer disk, or electronically at the discretion of the Department.
	In accordance with 310 CMR 7.00, Appendix C(10)(c), report a summary of all monitoring data and related supporting information to the Department every six months (January 30 and July 30) of each calendar year.

Table 6 Notes:

1. The annual Source Registration/Emission Statement shall be submitted to the DEP Office specified in the instructions. ***All other reports, including both 6-month summary reports, are to be submitted to the Southeast Regional Office address, as specified on the letterhead of this Operating Permit.***

2. Annual reports shall be submitted to this Office no later than February 15 of each year following the calendar year in which the data were collected.

3. Semi-annual reports shall be submitted according to the schedule specified. 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. If data were collected during the second calendar half, then the report shall be submitted on or before February 15 following the second calendar half.

4. Include only reports which document emission levels that were above the applicable requirements, and the corrective actions taken.

C. GENERAL APPLICABLE REQUIREMENTS

The Permittee shall comply with all generally applicable requirements contained in 310 CMR 7.00 et. seq. and 310 CMR 8.00 et. seq., when subject.

D. REQUIREMENTS NOT CURRENTLY APPLICABLE

The Permittee shall comply with any applicable requirements that become effective during the permit term.

The Permittee is currently not subject to the following requirements:

Table 7

Regulation	Description
310 CMR 7.16	Reduction of Single Occupant Commuter Vehicle Use
42 USC 7401, §112(r)(7)	Accidental Release Prevention Requirements: Risk Management under the Clean Air Act §112(r)
310 CMR 7.25	Consumer and Commercial Products

5. SPECIAL TERMS AND CONDITIONS

The Permittee is subject to the following special provisions that are not contained in Tables 3, 4, 5 and 6.

A. In accordance with Approval No. 4I87182, Emission Units No. 1, 2, and 3 shall continue to emit through a single stack. The concrete stack contains 3 separate flues. Each flue has the following design characteristics:

Stack No.	1
Stack Height	345 feet
Stack Exit Diameter	90 inches
Flue Material	Steel

B. The Permittee shall comply with the processed refuse fuel (PRF) operating limitations contained in Approval No. 4I87182 through limiting steam flow consistent with the regulations contained in 310 CMR 7.08(2)(f)1.

C. In accordance with Approval No. 4I87182, the sulfur content of the No. 2 fuel oil combusted during startup and shutdown, or any conditions that warrant the combustion of oil, shall not exceed 0.15 lb/MMBtu heat input (approximately equivalent to 0.26 percent sulfur by weight). During periods when No. 2 fuel oil is the **only** fuel being combusted, each emission unit's firing rate shall not exceed 2,400 gallons per hour.

D. In accordance with Approval No. 4I87182, the Permittee shall not combust "Hazardous Waste" as defined in 310 CMR 7.00 in any municipal waste combustor, nor shall sludges (including sewage sludge), or noncompatible wastes be combusted, nor shall there be the unpermitted storage of the foregoing at the facility.

E. Pursuant to the requirements of Approval No. 4B00058 and Applicability Determination dated April 10, 2001, in the event that urea is used in the Emission Unit No. 3 SNCR system(s) to control NO_x emissions for a cumulative period of 720 hours in any 12-month rolling period, the Permittee shall, within 60 days after triggering the 720 hour period, conduct an optimization/minimization testing program to ensure that the emission of ammonia (ammonia slip) is minimized. A test protocol for the optimization/minimization test program shall be submitted 30 days prior to commencement of the test program. The Permittee shall notify the Department of the dates that testing will occur. A test report shall be submitted to the Department within 60 days of the completion of such testing. The Permittee shall maintain an ammonia monitor for Emission Unit No. 3, and at such time that the SNCR system is utilized as outlined above, the monitor will be required to collect and record data.

F. In accordance with Approval No. 4P94063, the Permittee may utilize landfill leachate and other types of wastewater in the spray dryer absorbers (SDAs) for Emission Units No. 1, 2, and 3 and in the Emission Unit No. 3 NO_xOUT nitrogen oxides control system, and in possible future NO_xOUT Systems associated with Emission Units No. 1 and 2. Landfill leachate and wastewater usage shall be restricted to 70,000,000 gallons per 12-month rolling period. Records shall be maintained documenting compliance with the above limit.

Approval to recycle leachate and wastewater is contingent upon the following:

(1) Wastewater that is a hazardous waste as defined in 310 CMR 30.00 shall not be recycled by the Permittee.

(2) Wastewater total hydrocarbon concentration shall not exceed 30 milligrams per liter (mg/l) as received at the facility. Hydrocarbons shall be defined as those tested using EPA Methods 8260 and 8270 as referenced in SW 846. Each source of wastewater shall be sampled and analyzed for total hydrocarbons initially, and once per quarter thereafter.

(3) Sampling and analysis of a wastewater source may shift to once per year if in four (4) consecutive quarters hydrocarbons are less than 30 mg/l and if the volatile organic compound (VOC) fraction of total hydrocarbons is less than 10 mg/l. VOCs are as defined in 310 CMR 7.00.

(4) Records shall be maintained as to the source of wastewater, the amount received, date received and analytical data. Onsite records shall be retained for a minimum of five (5) years.

G. In accordance with Approval No. 4P94063, the Permittee is authorized to accept and/or incinerate the following materials:

(1) Offsite-generated combustible clean-up debris including absorbent pads, hay, vegetation, booms, and incidental quantities of soil, mineral-based absorbents, and other absorbents that are contaminated with virgin and non-virgin petroleum liquids.

(2) Onsite-generated combustible clean-up debris including absorbent pads, hay, vegetation, booms, Speedi-Dry, and other absorbents, used rags, and soil that are contaminated with virgin and non-virgin petroleum liquids.

(3) Onsite-generated wastes from routine operations including used rags, wipes, mineral-based absorbents, and other granular absorbents contaminated with virgin and non-virgin petroleum liquids.

(4) Pharmaceutical wastes including waste products and off-specification raw materials.

(5) Construction and demolition debris and wood waste.

(6) Industrial solid wastes including off-specification products and raw materials; e.g., lotions, food products, cosmetics, plastics, packaging, and deodorants.

H. In accordance with Approval No. 4P94063, the acceptance and burning of materials specified in the foregoing Proviso G are subject to the following conditions:

(1) The material shall not be a hazardous waste as defined by 310 CMR 30.00.

(2) Onsite and offsite clean-up debris and soil shall be managed consistent with 310 CMR 40.00.

(3) Virgin and non-virgin petroleum liquids that contaminate offsite and onsite clean-up debris material, or onsite-generated waste material shall not exceed the criteria for specification used oil as defined in 310 CMR 7.05(8).

(4) Onsite-generated used rags, wipes, mineral-based absorbents, and other granular absorbents contaminated with virgin and non-virgin petroleum liquids shall be managed consistent with DEP/DHW Policy No. 92-02 Waste Management Guidance for Industrial Wipers and Sorptive Minerals Contaminated with Waste Oil, dated May 20, 1992; and with DEP/BWP Policy No. 94-015 Policy for Industrial Wipers Contaminated with Solvents.

(5) Onsite-generated contaminated soil shall not exceed 200 tons per 12-month rolling period.

(6) Pharmaceutical wastes shall be disposed of in accordance with the requirements of the Massachusetts Department of Public Health and the U.S. Department of Justice Drug Enforcement Administration.

(7) Sludges shall not be accepted or incinerated unless otherwise approved by the Department in writing.

(8) Any of the above solid wastes that require special handling, whether due to physical or chemical characteristics, shall receive a Special Waste Permit pursuant to 310 CMR 19.00 prior to acceptance and incineration.

I. Site Assignment – In accordance with 310 CMR 7.08(2)(a), no person shall suffer, allow, or permit the construction, substantial reconstruction, alteration, or operation of a municipal waste combustor unit on a site which has not received a site assignment in accordance with MGL c.111, §150A.

J. Compliance and Performance Testing – As required by 310 CMR 7.08(2)(g), the facility shall comply with the provisions of 40 CFR 60.58b Compliance and Performance Testing, effective December 19, 1995, and as amended October 24, 1997, the provisions of which are hereby incorporated by reference. Compliance with the applicable requirements as set forth in 310 CMR 7.08(2)(f) and Section 4 of Approval No. 4B00058, shall be determined in accordance with 40 CFR 60.58b, except as provided under 310 CMR 7.08(2)1, 2, 3, 4, 5, and 6, as specified within Approval No. 4B00058.

K. Operator Training and Certification – In accordance with 310 CMR 7.08(2)(f)6, the facility shall implement the following municipal waste combustor operator training and certification requirements:

(1) Shall have each chief facility operator and shift supervisor obtain and maintain an Operator Certificate issued by the American Society of Mechanical Engineers

(ASME).

(2) Shall not allow the municipal waste combustor 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)). If one of the persons listed above must leave the municipal waste combustor plant during his or her operating shift, a provisionally certified control room operator who is onsite at the municipal waste combustor plant may fulfill these requirements.

(3) 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 (NTIS) EPA Municipal Waste Combustor Operating Course.

(4) Shall establish a training program to review the operating manual with each person who has responsibilities affecting the operation of an affected municipal waste combustor unit, including, but not limited, chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/-load handlers. The operating manual shall address at a minimum the following:

(i) A summary of all the applicable requirements in 310 CMR 7.08(2);

(ii) basic combustion theory applicable to a municipal waste combustor unit;

(iii) procedures for receiving, handling, and feeding municipal solid waste;

(iv) municipal waste combustor unit startup, shutdown, and malfunction procedures;

(v) procedures for maintaining proper combustion air supply levels;

(vi) procedures for operating the municipal waste combustor 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 particulate matter carryover;

(ix) procedures for handling ash;

(x) procedures for monitoring municipal waste combustor unit emissions; and,

(xi) reporting and recordkeeping procedures.

(5) Shall make available to the Department for inspection upon request all the operating manual and records of training.

(6) Shall be in compliance with all training and certification requirements specified in 310 CMR 7.08(2)(f)6 by six months after the date of startup or August 21, 1999, whichever is later.

L. In accordance with Approval No. 4I87182, there shall be no installation of ducts or breechings bypassing any portion of the air pollution control equipment.

M. In accordance with Approval No. 4I87182, PRF shall not be introduced to the furnace until such time as the required temperature is attained (i.e., exposure of all gases to a minimum temperature of 1,800ºF for one (1) second after secondary air injection). The temperature shall be maintained during planned shutdowns until all PRF is burned (i.e., no PRF on the grate).

N. In accordance with Approval No. 4I87182, abatement action as specified in the standard operating and maintenance procedures shall be immediately initiated should the equipment cause or contribute to a condition of air pollution due to the emission of smoke, noise, odor, dust, or windblown refuse.

O. In accordance with Approval No. 4I87182, the MSW Receiving Building (including PRF Storage Area and Infeed Area), Shredder Building, and Magnetic Separator Buildings shall be put under negative pressure sufficient to prevent the release of odor from the buildings. The odor-laden air shall be ducted to the Boiler Building to be oxidized in the three boilers for odor control. Redundancy of odor control shall be accomplished by having all three boilers equipped to burn the odor-laden air. Should the Magnetic Separator Building and Shredder building be equipped with a Department-approved carbon adsorption system or thermal oxidation system, it will not be necessary to have these odor sources vented to the boilers . The Permittee shall demonstrate compliance with this Proviso by adhering to the odor control program, as outlined in the Operation and Maintenance Manual, approved by the Department on October 29, 2002 **(state-only requirement)**.

P. In accordance with Approval No. 4I87182, each steam-generating unit shall not exceed at any time 25 megawatts (MW) electrical output to the utility power distribution system for sale. Compliance with this proviso is defined on a 12-month rolling average basis. Records shall be maintained for Department examination, in sufficient detail to define peak electric to the utility power distribution system.

Q. In accordance with Approval No. 4I87182, the facility shall not exceed 0.045 picograms per cubic meter, annual average 2,3,7,8 tetra chloro dibenzo dioxin (TCDD) toxic equivalent ambient air impact **(state-only requirement)**.

R. In accordance with 310 CMR 7.02(7)(a)7 and Department Guideline No. 91-001, dated January 31, 1992, model the results of the most recent stack test to ascertain compliance with all state and federal air quality standards, applicable Department Threshold Effects Exposure Limits (TELs) and Allowable Ambient Limits (AALs), and the Department guideline for PCDDs/PCDFs (dioxins/furans) **(state-only requirement)** .

S. In accordance with Approval No. 4P94063, Shredder A – D operating hours are unrestricted provided odor or sound emissions do not cause or contribute to a condition of air pollution **(state-only requirement)**.

T. In accordance with the Applicability Determination dated November 13, 1991, oil filter elements which do not fail the Toxicity Characteristic Leaching Procedure (TCLP) and do not have more than a film of oil will not be classified as a hazardous waste, a regulated recyclable material, nor will they be subject to the specification oil burning test requirements contained in 310 CMR 7.05, and are suitable for disposal at a municipal solid waste combustor.

U. In accordance with Approval No. 4I90152, applicable permits from the Division of Hazardous Waste must be obtained **prior** to the burning of used oil fuel.

V. In accordance with Approval No. 4I90152, any onsite-generated used oil to be burned shall meet the specifications set forth in 310 CMR 7.05(8) Standards for Used Fuel Oil of the regulations, with the exception that the total halogen content shall not exceed 1,000 ppm and that the sulfur content shall not exceed 0.55 pounds per million Btu heat release potential (approximately equivalent to 1.0 percent sulfur content fuel oil) under any circumstances.

W. In accordance with Approval No. 4I90152, prior to burning onsite-generated specification used oil, the Permittee shall demonstrate compliance with the aforementioned standards and limits via independent testing/analysis. All testing and recordkeeping shall be performed in accordance with previously issued Recycling Permit No. 0174, dated December 18, 1989.

X. In accordance with 310 CMR 7.10 and Department Policy No. 90-001, dated February 1, 1990, operation of the facility and associated equipment shall not:

(1) Increase the broadband sound level by more than 10 dB(A) above ambient; or,

(2) produce a “pure tone” condition (i.e., when any octave band center frequency exceeds the two adjacent center frequency sound pressure levels by 3 dB or more).

(**Note:** Proviso X is a **state-only requirement**).

6. ALTERNATIVE OPERATING SCENARIOS

The Permittee did not request alternative operating scenarios in its operating permit application.

7. EMISSIONS TRADING

(a) Intra-facility emission trading

The facility did not request intra-facility emissions trading in its operating permit application. Pursuant to 310 CMR 7.00: Appendix C(7)(b), emission trades, provided for in this permit, may be implemented provided the Permittee notifies the United States Environmental Protection Agency (EPA) and the Department at least fifteen (15) days in advance of the proposed changes and the Permittee provides the information required in 310 CMR 7.00: Appendix C(7)(b)3.

Any intra-facility change that does not qualify pursuant to 310 CMR 7.00: Appendix C(7)(b)2 is required to be submitted to the Department pursuant to 310 CMR 7.00: Appendix B.

(b) Inter-facility emission trading

The facility did not request inter-facility emissions trading in its operating permit application.

All increases in emissions due to emission trading, must be authorized under the applicable requirements of 310 CMR 7.00: Appendix B (the "Emissions Trading Program") and the 42 U.S.C. §7401 et seq. (the "Act"), and provided for in this permit.

8. COMPLIANCE SCHEDULE

The Permittee has indicated that the facility is in compliance and shall remain in compliance with the applicable requirements contained in Sections 4 and 5.

In addition, the Permittee shall comply with any applicable requirements that become effective during the permit term.

GENERAL CONDITIONS FOR OPERATING PERMIT

9. FEES

The Permittee has paid the permit application processing fee and shall pay the annual compliance fee in accordance with the fee schedule pursuant to 310 CMR 4.00.

10. COMPLIANCE CERTIFICATION

All documents submitted to the Department shall contain certification by the responsible official of truth, accuracy, and completeness. Such certification shall be in compliance with 310 CMR 7.01(2) and contain the following language:

"I certify that I have personally examined the foregoing and am familiar with the information contained in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possible fines and imprisonment."

The Department will submit an "Operating Permit Reporting Kit" to the Permittee which contains instructions and the Annual Compliance Report and Certification and the Semi-Annual Monitoring Summary Report and Certification.

(a) Annual Compliance Report and Certification

The Responsible Official shall certify, annually for the calendar year, that the facility is in compliance with the requirements of this permit. The report shall be postmarked or delivered by January 30 to the Department and to the Regional Administrator, U.S. Environmental Protection Agency – New England Region. The report shall be submitted in compliance with the submission requirements below.

The compliance certification and report shall describe:

(i) The terms and conditions of the permit that are the basis of the certification;

(ii) the current compliance status and whether compliance was continuous or intermittent during the reporting period;

(iii) the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods; and,

(iv) any additional information required by the Department to determine the compliance status of the source.

(b) Semi-Annual Monitoring Summary Report and Certification

The Responsible Official shall certify, semi-annually on the calendar year, that the facility is in compliance with the requirements of this permit. The report shall be postmarked or delivered by January 30 and July 30 to the Department. The report shall be submitted in compliance with the submission requirements below.

The compliance certification and report shall describe:

(i) the terms and conditions of the permit that are the basis of the certification;

(ii) the current compliance status during the reporting period;

(iii) the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods;

(iv) whether there were any deviations during the reporting period;

(v) if there were any outstanding deviations at the time of reporting, and the Corrective Action Plan to remedy said deviation;

(vi) whether deviations in the reporting period were previously reported;

(vii) if there were any outstanding deviations at the time of reporting, the proposed date of return to compliance;

(viii) if the deviations in the reporting period have returned to compliance and date of such return to compliance; and,

(ix) any additional information required by the Department to determine the compliance status of the source.

11. NONCOMPLIANCE

Any noncompliance with a permit condition constitutes a violation of 310 CMR 7.00: Appendix C and the Clean Air Act, and is grounds for enforcement action, for permit termination or revocation, or for denial of an operating permit renewal application by the Department and/or EPA. Non-compliance may also be grounds for assessment of administrative or civil penalties under M.G.L. c.21A, §16 and 310 CMR 5.00, and civil penalties under M.G.L. c.111, §142A and 142B. This permit does not relieve the Permittee from the obligation to comply with any other provisions of 310 CMR 7.00 or the Act, or to obtain any other necessary authorizations from other governmental agencies, or to comply with all other applicable Federal, State, or Local rules and regulations, not addressed in this permit.

12. PERMIT SHIELD

(a) This facility has a permit shield provided that it operates in compliance with the terms and conditions of this permit. Compliance with the terms and conditions of this permit shall be deemed compliance with all applicable requirements specifically identified in Sections 4, 5, 6, and 7, for the emission units as described in the Permittee's application and as identified in this permit.

Where there is a conflict between the terms and conditions of this permit and any earlier permit, the terms and conditions of this permit control.

(b) The Department has determined that the Permittee is not currently subject to the requirements listed in Section 4, Table 7.

(c) Nothing in this permit shall alter or affect the following:

(i) The liability of the source for any violation of applicable requirements prior to or at the time of permit issuance.

(ii) The applicable requirements of the Acid Rain Program, consistent with 42 U.S.C. §7401, §408(a); or,

(iii) the ability of EPA to obtain information under 42 U.S.C. §7401, §114 or §303 of the Act.

13. ENFORCEMENT

The following regulations found at 310 CMR 7.02(8)(h) Table 6 for wood fuel, 7.02(8)(i), 7.04(9), 7.05(8), 7.09 (odor), 7.10 (noise), 7.18(1)(b), 7.21, 7.22 and any condition(s) designated as "state only" are not federally enforceable because they are not required under the Act or under any of its applicable requirements. These regulations and conditions are not enforceable by the EPA. Citizens may seek equitable or declaratory relief to enforce these regulations and conditions pursuant to Massachusetts General Law Chapter 214, Section 7A.

All other terms and conditions contained in this permit, including any provisions designed to limit a facility's potential to emit, are enforceable by the Department, EPA and citizens as defined under the Act.

A Permittee shall not claim as a defense 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.

14. PERMIT TERM

This permit shall expire on the date specified on the cover page of this permit, which shall not be later than the date five (5) years after the issuance of this permit.
Permit expiration terminates the Permittee's right to operate the facility's emission units, control equipment or associated equipment covered by this permit, unless a timely and complete renewal application is submitted at least 6 months before the expiration date.

15. PERMIT RENEWAL

Upon the Department's receipt of a complete and timely application for renewal, this facility may continue to operate subject to final action by the Department on the renewal application.

In the event the Department has not taken final action on the operating permit renewal application prior to this permit's expiration date, this permit shall remain in effect until the Department takes final action on the renewal application, provided that a timely and complete renewal application has been submitted in accordance with 310 CMR 7.00: Appendix C(13).

16. REOPENING FOR CAUSE

This permit may be modified, revoked, reopened, and reissued, or terminated for cause by the Department and/or EPA. The responsible official of the facility may request that the Department terminate the facility's operating permit for cause. The Department will reopen and amend this permit in accordance with the conditions and procedures under 310 CMR 7.00: Appendix C(14).

The filing of a request by the Permittee for an operating permit revision, revocation and reissuance, or termination, or a notification of a planned change or anticipated noncompliance does not stay any operating permit condition.

17. DUTY TO PROVIDE INFORMATION

Upon the Department's written request, the Permittee shall furnish, within a reasonable time, any information necessary for determining whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the Permittee shall furnish to the Department copies of records that the Permittee is required to retain by this permit.

18. DUTY TO SUPPLEMENT

The Permittee, upon becoming aware that any relevant facts were omitted or that incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. The Permittee shall also provide additional information as necessary to

address any requirements that become applicable to the facility after the date a complete renewal application was submitted but prior to release of a draft permit.

The Permittee shall promptly, on discovery, report to the Department a material error or omission in any records, reports, plans, or other documents previously provided to the Department.

19. TRANSFER OF OWNERSHIP OR OPERATION

This permit is not transferable by the Permittee unless done in accordance with 310 CMR 7.00: Appendix C(8)(a). A change in ownership or operation control is considered an administrative permit amendment if no other change in the permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, liability between current and new Permittee has been submitted to the Department.

20. PROPERTY RIGHTS

This permit does not convey any property rights of any sort, or any exclusive privilege.

21. INSPECTION AND ENTRY

Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow authorized representatives of the Department and EPA to perform the following:

(a) Enter upon the Permittee's premises where an operating permit source activity is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit;

(b) have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

(c) inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and,

(d) sample or monitor at reasonable times, any substances or parameters for the purpose of assuring compliance with the operating permit or applicable requirements as per 310 CMR 7.00 Appendix C(3)(g)12.

22. PERMIT AVAILABILITY

The Permittee shall have available at the facility at all times a copy of the materials listed under 310 CMR 7.00: Appendix C(10)(e) and shall provide a copy of the permit, including any amendments or attachments thereto, upon request by the Department or EPA.

23. SEVERABILITY CLAUSE

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

24. EMERGENCY CONDITIONS

The Permittee shall be shielded from enforcement action brought for noncompliance with technology based[(1)] emission limitations specified in this permit as a result of an emergency[(2)]. In order to use emergency as an affirmative defense to an action brought for noncompliance, the Permittee shall demonstrate the affirmative defense through properly signed, contemporaneous operating logs, or other relevant evidence that:

(a) an emergency occurred and that the Permittee can identify the cause(s) of the emergency;

(b) the permitted facility was at the time being properly operated;

(c) during the period of the emergency the Permittee took all reasonable steps as expeditiously as possible to minimize levels of emissions that exceeded the emissions standards, or other requirements in this permit; and,

(d) the Permittee submitted notice of the emergency to the Department within two (2) business days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emission, and corrective actions taken.

If an emergency episode requires immediate notification to the Division of Hazardous Waste/-Emergency Response and the Emergency Response Planning Council, immediate notification to the appropriate parties should be made as required by law.

25. PERMIT DEVIATION

Deviations are instances where any permit condition is violated and not reported as an emergency pursuant to Section No. 24 of this Operating Permit. Reporting a permit deviation is not an affirmative defense for action brought for noncompliance. Any reporting requirements listed in Table 6 of this Operating Permit shall supersede the following deviation reporting requirements, if applicable.

The Permittee shall report to the Department's Regional Bureau of Waste Prevention the following deviations from permit requirements, by telephone or fax, within three (3) days of discovery of such deviation:

[(1)] Technology based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a new source performance standard) rather than those established to attain health based air quality standards.

[(2)] An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation would require immediate corrective action to restore normal operation, and that causes the source to exceed a technology based limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operations, operator error or decision to keep operating despite knowledge of any of these things.

- Unpermitted pollutant releases, excess emissions or opacity exceedances measured directly by CEMS/COMS, by EPA reference methods or by other credible evidence, which are ten percent (10%) or more above the emission limit.

- Exceedances of parameter limits established by your Operating Permits or other approvals, where the parameter limit is identified by the permit or approval as surrogate for an emission limit.

- Exceedances of permit operational limitations directly correlated to excess emissions.

- Failure to capture valid emissions or opacity monitoring data or to maintain monitoring equipment as required by statutes, regulations, your Operating Permit, or other approvals.

- Failure to perform QA/QC measures as required by your Operating Permit or other approvals for instruments that directly monitor compliance.

For all other deviations, three (3) day notification is waived and is satisfied by the documentation required in the subsequent Semi-Annual Monitoring Summary and Certification. Instructions and forms for reporting deviations are found in the Massachusetts Department of Environmental Protection Bureau of Waste Prevention Air Operating Permit Reporting Kit, which is included with the Operating Permit. This report shall include the deviation, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and the corrective actions or preventive measures taken.

Deviations that were reported by telephone or fax within 3 days of discovery, said deviations shall also be submitted in writing via the Operating Permit Deviation Report to the regional Bureau of Waste Prevention within ten (10) days of discovery. For deviations which do not require 3 day verbal notification, follow-up reporting requirements are satisfied by the documentation required in the aforementioned Semi-Annual Monitoring Summary and Certification.

26. OPERATIONAL FLEXIBILITY

The Permittee is allowed to make changes at the facility consistent with 42 U.S.C. §7401, §502(b)(10) not specifically prohibited by the permit, and in compliance with all applicable requirements, provided the Permittee gives the EPA and the Department written notice fifteen days prior to said change; notification is not required for exempt activities listed at 310 CMR 7.00: Appendix C(5)(i). The notice shall comply with the requirements stated at 310 CMR 7.00: Appendix C(7)(a) and will be appended to the facility's permit. The permit shield allowed for at 310 CMR 7.00: Appendix C(12) shall not apply to these changes.

27. MODIFICATIONS

(a) Administrative Amendments - The Permittee may make changes at the facility which are considered administrative amendments pursuant to 310 CMR 7.00: Appendix C(8)(a)1.,

provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(b).

(b) Minor Modifications - The Permittee may make changes at the facility which are considered minor modifications pursuant to 310 CMR 7.00: Appendix C(8)(a)2., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(d).

(c) Significant Modifications - The Permittee may make changes at the facility which are considered significant modifications pursuant to 310 CMR 7.00: Appendix C(8)(a)3., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(c).

(d) No permit revision shall be required, under any approved economic incentives program, marketable permits program, emission trading program and other similar programs or processes, for changes that are provided in this operating permit. A revision to the permit is not required for increases in emissions that are authorized by allowances acquired pursuant to the Acid Rain Program under Title IV of the Act, provided that such increases do not require an operating permit revision under any other applicable requirement.

APPEAL CONDITIONS FOR OPERATING PERMIT

This permit is an action of the Department. If you are aggrieved by this action, you may request an adjudicatory hearing within 21 days of issuance of this permit. In addition, any person who participates in any public participation process required by the Federal Clean Air Act, 42 U.S.C. §7401, §502(b)(6) or under 310 CMR 7.00: Appendix C(6), with respect to the Department's final action on operating permits governing air emissions, and who has standing to sue with respect to the matter pursuant to federal constitutional law, may initiate an adjudicatory hearing pursuant to Chapter 30A, and may obtain judicial review, pursuant to Chapter 30A, of a final decision therein.

If an adjudicatory hearing is requested, the facility must continue to comply with all existing federal and state applicable requirements to which the facility is currently subject, until a final decision is issued in the case or the appeal is withdrawn. During this period, the application shield shall remain in effect, and the facility shall not be in violation of the Act for operating without a permit.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts which are the grounds for the request, and the relief sought. Additionally, the request must state why the permit is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to The Commonwealth of Massachusetts in the amount of one hundred dollars ($100.00) must be mailed to:

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

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, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

The Department 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, an affidavit setting forth the facts believed to support the claim of undue financial hardship.