

# Commonwealth of Massachusetts Executive Office of Energy & Environmental Affairs

# Department of Environmental Protection

Central Regional Office • 627 Main Street, Worcester MA 01608 • 508-792-7650

DEVAL L. PATRICK Governor

TIMOTHY P. MURRAY Lieutenant Governor RICHARD K. SULLIVAN JR. Secretary

> KENNETH L. KIMMELL Commissioner

## FINAL AIR QUALITY OPERATING PERMIT

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"]: INFORMATION RELIED UPON:

Wheelabrator Millbury Inc.

331 Southwest Cutoff Road Application No. 108016

Millbury, Massachusetts 01527 Transmittal No. 108016

FACILITY LOCATION: FACILITY IDENTIFYING NUMBERS:

Wheelabrator Millbury Inc.

331 Southwest Cutoff

SSEIS ID: AQCR 118, Plant ID 419

Millbury, Massachusetts 01527

FMF FAC NO. 132293

FMF RO NO. 161446

NATURE OF BUSINESS: STANDARD INDUSTRIAL CODE (SIC):

Incineration of Municipal Waste
To Energy 4953

RESPONSIBLE OFFICIAL: FACILITY CONTACT PERSON:

Name: Peter B. DiCecco Name: Donald J. Rudge

Title: General Manager Title: Manager, EHS Compliance

Phone: (508) 791-8900

This operating permit shall expire on December 2, 2008.

For the Department of Environmental Protection, Bureau of Waste Prevention

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.

Roseanna E. Stanley, Section Chief September 20, 2011

Date

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## SPECIAL CONDITIONS FOR OPERATING PERMIT

A Legend to abbreviated Terms found in the following Tables is located in Section 28 of the 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 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 Permittee is named Wheelabrator Millbury Inc (WMI) Resource Recovery facility with a place of business located at 331 Southwest Cutoff Road, Millbury, Massachusetts. WMI processes and burns municipal solid waste for the production of electrical power for the energy grid system (trash to energy facility).

The project consists of the operation of two boilers designed at 323 MMBtu/hr (equivalent to 36 tons per hour of MSW at 4500 BTU per pound of refuse). The boilers produce steam to generate a maximum of 45 MW of electricity to be sold to the utility transmission network. Each boiler has its own air pollution emission control system and continuous emission monitoring system (CEM's). There is a common stack and ash handling and conveying system for the boilers. The emissions (criteria and non-criteria pollutants) from the combustion of MSW in the boilers are emitted through a common concrete shell with a metal lining, insulated stack, the top of which is 365 feet above ground level. The ash is transferred to a DEP approved solid waste disposal facility.

Table 1 lists the emission units (EU's) applicable to the operating permit. Table 2 describes equipment that are considered exempt activities and not named further in the operating permit. Tables 3, 4, 5 and 6 describe the applicable requirements that the EU's are subject to in the operating permit. Table 7 describes the requirements currently not applicable to the facility. Table 8 describes special terms and conditions applicable to the Permittee.

#### **EMISSION UNIT IDENTIFICATION** 2.

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		
EU#1	Babcock & Wilcox Incinerator/Mass Burn	323 MMBtu/hr <sup>1</sup> 195,000 lb/hr of steam @ 900 psig/830°F	-Fabric Filter -Spray Dryer Absorber -Selective Non-catalytic Reduction -Powdered Activated Carbon Injection System		
EU#2	Babcock & Wilcox Incinerator/Mass Burn	323 MMBtu/hr 195,000 lb/hr of steam @ 900 psig/830°F	-Fabric Filter -Spray Dry Absorber -Selective Non-Catalytic Reduction -Powdered Activated Carbon Injection System		
EU#3	Ash Handling and Fugitive Emissions	#1 – 4,500 ACFM <sup>2</sup> #2 – 10,000 ACFM	Enclosed Buildings and Conveyors  -#1 – Zurn Wet Dust Collector DX03-12 -#2 – Tri-Mer Model 100-H Whirl Wet Collector		

<sup>&</sup>lt;sup>1</sup>Represents million British thermal units per hour <sup>2</sup> Represents actual cubic feet per minute

#### **IDENTIFICATION OF EXEMPT ACTIVITIES 3.**

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

	Table 2	
IA#	Description of Current Exempt Activities	Reason
N/A	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 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. <u>APPLICABLE REQUIREMENTS</u>

A. Emission Limits & Restrictions

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

#### Table 3

#### **Emission Limits and Restrictions**

- 1. The Permittee shall comply with the emission limits, standard or restrictions as specified in Table 3 and the requirements below. Emission limits in Table 3 apply at all times except during periods of start-up, shutdown, or malfunction as defined in 40 CFR Part 60.58b.
- 2. The Code of Federal Regulation 40 CFR 60.44, Subpart Db Standards of Performance for Industrial-Commercial-Institution Steam Generating Plant "applies to each steam generating unit for which construction, modification or reconstruction is commenced after June 19, 1984 that has a maximum design heat input capacity greater than 100 million Btu's per hour". Each of the boilers at Wheelabrator Millbury, Inc. have a maximum heat input capacity of 323 million Btu's per hour and therefore is subject to (a) a limit on natural gas firing in the auxiliary burners to 10% of the annual maximum potential heat input to each boiler, (b) a particulate limit of 0.10 lb/MMBtu under 40 CFR 60.43b(d), and (c) the recordkeeping requirement for calculating and maintaining the annual capacity factor for natural gas on each unit.
- 3. During any nine-month dioxin/furan compliance test and the 2 weeks preceding each nine-month dioxin/furan compliance test, municipal waste combustor unit load limit and PM control device temperature limitations are not applicable.
- 4. 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. During the limited mercury waiver period, which shall expire on December 31, 2003 unless an extension is requested and granted pursuant to 310 CMR 7.08(2)(g)4.e., the Permittee, shall comply with a mercury emission limit of 0.065 mg/dscm at 7% O<sub>2</sub> dry basis based on the average of four quarterly compliance tests per rolling 12-months.

		Table 3	rage 0 01 28
EU#	Pollutant or Operating Practice	Emission Limit, Standard or Restrictions in Operating Practices	Applicable Regulation or Plan Approval
	Particulate Matter	6. No person shall cause, suffer, allow or permit emissions from any incinerator of any particles that have a dimension greater than 100 microns.	310 CMR 7.06(2)
	Particulate Matter	7. 310CMR 7.08(2)(f) $\leq$ 27 mg/dscm at 7% O <sub>2</sub> dry basis.	40 CFR Part 60 Subpart E
	Sulfur Dioxide	8. 310CMR 7.08(2)(f) $\leq$ 29 PPMVD by volume at 7% $O_2$ dry basis or 75% reduction by weight or volume, whichever is less stringent, not to exceed 88 ppm @ 7% $O_2$ .	-Emission Control Plan TR# W003303/ 310CMR 7.08(2)(f) -7.02 Plan Approval # CM-85-IF-001(A) -PSD Approval #CM- 85-IFPSD-001
	Carbon Monoxide	9. 7.02 air plan approval $\leq$ 84 PPMVD by volume at 7% $O_2$ dry basis (4-hour block average)	-Emission Control Plan TR# W003303/ -7.02 Plan Approval # CM-85-IF-001(A) -PSD Approval #CM- 85-IFPSD-001
EU#1 and 2	Nitrogen Oxides	10. 310CMR 7.08(2)(f) $\leq$ 205 PPMVD by volume at 7% O <sub>2</sub> dry basis (24-hour daily arithmetic average)	-Emission Control Plan TR# W003303/ -310 CMR 7.08(2)(f) -310 CMR 7.19 NOx RACT -7.02 Plan Approval # CM-85-IF-001(A) -PSD Approval #CM- 85-IFPSD-001
	Hydrogen Chloride	11. 310 CMR 7.08(2)(f) $\leq$ 29 PPMVD by volume at 7% O <sub>2</sub> dry basis or 95% reduction by weight or volume, whichever is less stringent.	
	Cadmium	12. 310 CMR 7.08(2)(f) $\leq$ 0.04 mg/dscm at 7% O <sub>2</sub> dry basis	
	Lead	13. 310 CMR 7.08(2)(f) $\leq$ 0.44 mg/dscm at 7% O <sub>2</sub> dry basis	-Emission Control Plan TR# W003303/310 CMR 7.08(2)(f)
	Mercury	14. 310 CMR 7.08(2)(f) $\leq$ 0.028 mg/dscm at 7% $O_2$ dry basis (see Table 4, Conditions 4 and 5)	-7.02 Plan Approval # CM-85-IF-001(A) -PSD Approval #CM- 85-IFPSD-001
	Beryllium	15. 7.02 Plan Approval - 1.4 x 10 <sup>-6</sup> lb/MMBtu	
	Hydrogen Fluoride	16. 7.02 Plan Approval - 0.016 lb/MMBtu	
	Sulfuric Acid Mist	17. 7.02 Plan approval - 0.045 lb/MMBtu	

		Table 3	1 age 7 01 28
EU#	Pollutant or Operating Practice	Emission Limit, Standard or Restrictions in Operating Practices	Applicable Regulation or Plan Approval
	Total Dioxins- Furans	18. 310 CMR 7.08(2)(f) $\leq$ 30 ng/dscm total mass at 7% O2 dry basis with fabric filtration.	
	Opacity	19. 310 CMR 7.08(2)(f) $\leq$ 10% (6 minute block average)	
	Unit load limit	20. 310 CMR 7.08(2)(f) Unit Load ≤ 110% of maximum demonstrated load (based on steam flow), calculated in 4-hour block arithmetic averages, measured during the most recent dioxin/furan compliance test in which compliance is achieved.	Emission Control Plan TR# W003303/310 CMR 7.08(2)(f)
	PMCD Inlet temp. limit	21. PM control device inlet temperature (PMCD) ≤ 17°C (30°F) above maximum demonstrated PM control device inlet temperature, calculated in 4-hour block arithmetic averages, measured during the most recent dioxin/furan compliance test in which compliance is achieved.	
EU#3	Visible Emissions of Fugitive Ash	22. 310 CMR $7.08(2)(f) \le 5\%$ of the observation period (9 minutes per three hour period) 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 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 the ash conveying systems must be done in accordance with best management practices.	Emission Control Plan TR# W003303/ 310 CMR 7.08(2)(f)

## B. <u>COMPLIANCE DEMONSTRATION:</u>

The Permittee shall comply with the monitoring/testing, record keeping, and reporting requirements as contained in Tables 4, 5, and 6 and 310 CMR 7.00 Appendix C (9) and (10) and "Applicable Requirements" contained in Table 3 and a requirement of the Prevention of Significant Deterioration Plan Approval letter, #CM-85-PSD-IF-001 dated November 8, 1985, 7.02 Final Air Plan Approval, #CM-85-IF-001(A) dated September 17, 1987 and the Final Emission Control Plan (ECP) Transmittal #W003303 dated July 2, 2002, and 310 CMR 7.08(2).

Compliance and performance testing shall comply with the provisions of 40 CFR 60.58b "Compliance and Performance Testing" the provisions of which are hereby incorporated by reference. Compliance with applicable requirements as set forth in Table 3 shall be determined in accordance with 40 CFR 60.58b except as provided in Tables 4, 5 and 6.

	Table 4
EU#	Monitoring and Testing Requirements
EU #1 & #2	In accordance with the provisions of the Prevention of Significant Deterioration plan approval #CM-85-PSD-IF-001, Final 7.02 air quality plan approval #CM-85-IF-001 (A) and Emission Control Plan (ECP) Transmittal# W003303, the Permittee is subject to the terms and conditions presented in Table 4 and to other terms and conditions referenced herein.
	1. In accordance with 310 CMR 7.08(2)(g), the Permittee shall comply with all the requirements of the Monitoring and Testing as specified in Table 4.
	2. Following the date of the initial performance test for dioxin/furan, the facility shall conduct compliance tests for dioxin/furan emissions according to one of the schedules specified below, as required by 310 CMR 7.08(2)(g) 1.a. and b.: a. conduct compliance test 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 <sub>2</sub> . 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 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 <sub>2</sub> .
	3. In accordance with 310 CMR 7.08(2)(g) 1.d., for municipal waste combustor units where carbon injection (or equivalent) is used to comply with the dioxin/furan emission limits specified in section 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 60.58b(m) effective December 19, 1995 and as amended October 24, 1997.
	4. Mercury-In accordance with 310 CMR 7.08(2)(g) 2., following the date of the initial performance test for Mercury (Hg), 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.

	Table 4		
EU#	Monitoring and Testing Requirements		
	5.Optimization Testing- In accordance with 310 CMR 7.08(2)(g) 3., for municipal waste combustor unit(s) which employ a 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 test 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 completion of replacement of the ESP with Fabric Filter Collection, upon request by the Department, upon request by the facility or annually if required under 310 CMR 7.08(2)(g) 4. (See table 8, No. 7 under SPECIAL CONDITIONS).		
	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 60 calendar days of the conclusion of any optimization test, 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.  6. In accordance with 310 CMR 7.08(2)(g) 6., the facility shall conduct compliance testing for PM, Cd, Pb,		
EU #1 & #2	HCL, opacity and fugitive emissions 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.		
#2	7. In accordance with 310 CMR 7.08(2)(g) 5.a. and b., Continuous Emissions Monitoring Systems (CEMS) which monitor NO <sub>x</sub> , SO <sub>2</sub> , operating practices and parameters, (e.g., CO, unit load and PM control device inlet temperature) shall obtain at a minimum valid continuous emissions monitoring system 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), and 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 Part 60, Appendix B, will satisfy the requirements in 310 CMR 7.08(2)(g).		
	8. Monitoring Devices – The Permittee shall maintain the following continuous emission monitors (CEM's) in an accurate operating condition to monitor continuously the following pollutant/parameters in accordance with the Plan Approval #CM-85-IF-001(A), the ECP issued under 310 CMR 7.08(2), and 310 CMR 7.00 Appendix C(9)(c). The CEM's shall comply with 40 CFR 60 Appendix B (Performance Specifications), and 40 CFR 60 Appendix F (Quality Control Procedures). The CEM's shall be calibrated, tested and maintained in accordance with the manufacturers, applicable MADEP and Federal U.S. EPA requirements.		

	Table 4
EU#	Monitoring and Testing Requirements
EU #1, #2 &	9. The CEM's shall continuously monitor Sulfur Dioxide (SO <sub>2</sub> ), Carbon Monoxide (CO) and Oxygen (O <sub>2</sub> ) at the spray drier absorber inlets as a requirement of plan approval #CM-85-IF-001(A). The CEM's shall continuously monitor Sulfur Dioxide (SO <sub>2</sub> ) and Oxygen (O <sub>2</sub> ) at the inlet of the spray drier absorber if compliance with the % reduction alternative SO <sub>2</sub> limit under 310 CMR 7.08(2)f will be used.
#3	10. The CEMS/COMS shall continuously monitor Nitrogen Oxides (NOx), Sulfur Dioxide (SO <sub>2</sub> ), Oxygen (O <sub>2</sub> ), and Opacity at the fabric filter collector outlet for determining compliance with the applicable emission limits under plan approval $\#CM-85$ -IF-001(A), and the ECP issued under 310 CMR 7.08(2). Upon approval from the Department, the facility shall continuously monitor carbon monoxide (CO) at the outlet of the fabric filter in lieu of condition $\#9$ of Table 4.
	11. Recording Devices - The Permittee shall maintain the following equipment and/or recording devices in an accurate operating condition as required by Plan Approval #CM-85-IF-001(A) and calibrate measurement devices as necessary under 310 CMR 7.08(2).  a) furnace operation – temperature, primary and secondary air flow b) emission control system c) quantity of refuse received d) ash and debris removed e) site wind speed and direction
	f) steam flow-calibrated in accordance with manufacturers specifications
	12. The Permittee shall monitor the operations of the entire facility such that necessary information is available for the preparation of the annual Source Registration/Emission Statement Forms as required by 310 CMR 7.12.
	13. In accordance with 310 CMR 7.13, the Department may require testing for any pollutants if deemed necessary to ascertain the mass emission rates and relationship to equipment design and operation.
	14. The Permittee shall conduct emission testing when the Department has determined that such testing is necessary to ascertain compliance with the Department's regulations or design approval provisos. Such testing shall be:
	<ul> <li>a) conducted by a person knowledgeable in emission testing and;</li> <li>b) conducted in accordance with procedures contained in a test protocol which has been approved by the Department and;</li> <li>c) in the presence of a representative of the Department when such is deemed necessary in</li> </ul>
	accordance with 310 CMR 7.13(1).  15. The Permittee shall conduct all required emission testing to demonstrate compliance with the Emission Limits specified in Table 3 in accordance with EPA approved reference test methods unless otherwise approved by EPA and the Department or unless otherwise specified.
	16. Compliance with the allowable opacity limits shall be determined in accordance with EPA Method 9, as specified in 40 CFR 60, Appendix A and in accordance with 310 CMR 7.00 Appendix C(9)(b).
	17. The Department reserves the right to require the monitoring of other specific pollutants in the future if deemed appropriate.
	18. Conduct performance test every nine months for visible emissions associated with ash handling and fugitive operations to insure compliance with visible emission standards as specified in Table 3.

	Table 5
EU#	RECORD KEEPING REQUIREMENTS
	In accordance with the provisions of the Prevention of Significant Deterioration plan approval #CM-85-PSD-IF-001, Final 7.02 air quality plan approval #CM-85-IF-001 (A) and Emission Control Plan (ECP) Transmittal# W003303, the Permittee is subject to the terms and conditions presented in Table 5 and to other terms and conditions referenced herein.
EU #1, #2 &# 3</td><td>1. In accordance with 310 CMR 7.08(2)(h) 9., the results of the initial performance tests and all nine 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 60 days after the test.</td></tr><tr><td></td><td>2. For the initial dioxin/furan performance test and all subsequent dioxin/furan compliance tests recorded under 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, as required by 310 CMR 7.08(2)(h) 10.</td></tr><tr><td></td><td>3. As required by 310 CMR 7.08(2)(h) 4., for municipal waste combustor unit(s) that apply carbon (or equivalent) for Hg or dioxin/furan control maintain, the following records:</td></tr><tr><td></td><td>a. The average carbon (or equivalent) mass feed rate (in lbs/hr) measured as required less than 40 CFR 60.58b(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 lbs/hr) measured for each 8 hour block average of operation as required under 40 CFR 60.58b(m)(1)(ii) effective December 19, 1995 and as amended October 24, 1997, during the initial dioxin/furan performance test and all subsequent nine month compliance tests, with supporting calculations.  c. The average carbon (or equivalent) mass feed rate (in lbs/hr) measured for each 8 hour block average of operation as required under 40 CFR 60.58b(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 measured as specified less than 40 CFR</td></tr><tr><td></td><td>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 parameter data for the parameter(s) that are the primary indicator(s) of carbon (or equivalent) feed rate.</td></tr><tr><td></td><td>4. As required by 310 CMR 7.08(2)(h) 13. For municipal waste combustor units that apply carbon (or equivalent) for Hg or dioxin/furan control:</td></tr><tr><td></td><td>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 feed rates measured during compliance tests for Hg or dioxin/furan emissions and recorded under paragraphs 310 CMR 7.08(2)(h) 4. a. or 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) of carbon mass feed rate (or equivalent) 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 60.58b(m)(1)(ii) effective December 19, 1995 and as amended October 24, 1997, with reasons for such occurrences and a description of corrective actions taken.</td></tr><tr><td></td><td>5. In accordance with 310 CMR 7.08(2)(h) 2., record the emission concentrations and parameters measured using continuous emissions monitoring systems. The measurements specified below shall be recorded and shall be available for submittal to the Department or for onsite review by an inspector:</td></tr></tbody></table>	

	Table 5
EU#	RECORD KEEPING REQUIREMENTS
EU #1, #2 & #3	<ul> <li>a. All 6-minute average opacity levels as specified less than 40 CFR 60.58b(c) effective December 19, 1995 and as amended October 24, 1997, including the highest level measured.</li> <li>b. All 1-hour average SO<sub>2</sub> emission concentrations as specified under 40 CFR 60.58b(e) effective December 19, 1995 and as amended October 24, 1997.</li> <li>c. All 1-hour average NO<sub>x</sub> emission concentrations as specified under 40 CFR 60.58b(h) effective December 19, 1995 and as amended October 24, 1997.</li> <li>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.</li> <li>e. All 24-hour daily geometric average SO<sub>2</sub> emission concentrations and all 24-hour daily geometric average percent reductions in SO<sub>2</sub> 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.</li> </ul>
	f. All 24-hour daily arithmetic average NO <sub>x</sub> emission concentrations as specified less than 40 CFR 60.58b(h) effective December 19, 1995 and as amended October 24, 1997, including the highest level recorded. g. All 4-hour block averages, CO emission concentrations, as applicable, as specified less than 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 temperature as specified less than 40 CFR 60.58b(I) effective December 19, 1995 and as amended October 24, 1997, including the highest level recorded.
	6. As required by 310 CMR 7.08(2)(h) 3., 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.  7. As required by 310 CMR 7.08(2)(h) 5., 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:
	<ul> <li>a. SO<sub>2</sub> emissions data.</li> <li>b. NOx emissions data.</li> <li>c. CO emissions data.</li> <li>d. Municipal waste combustor unit load data, including PM control device inlet temperature data</li> </ul>
	8. As required by 310 CMR 7.08(2)(h) 6., record each occurrence that SO <sub>2</sub> emissions data, NO <sub>x</sub> 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.
	9. As required by 310 CMR 7.08(2)(h) 7., record the results of daily drift tests and quarterly accuracy determinations for SO <sub>2</sub> , NOx, and CO continuous emission monitoring systems, as required under 40 CFR, Part 60, Appendix F, Procedure 1.
	10. As required by 310 CMR 7.08(2)(h) 8., record each occurrence of a start-up, shut-down or malfunction, including the specific reasons 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 start-up, shutdown or malfunction.

	Table 5		
EU#	RECORD KEEPING REQUIREMENTS		
EU #1, #2 	11. In accordance with 310 CMR 7.08(2)(h) 11. maintain records showing the names 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. 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.		
	12. In accordance with 310 CMR 7.08(2)(h) 12. maintain the records showing the names of the 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.		
	13. As required by 310 CMR 7.08(2)(h) 1., maintain the calendar date of each record.		
	14. The Permittee shall maintain on site the following records for the life of the facility from the date of generation and have the most recent two years of data readily available to the Department and EPA personnel in accordance with the final 7.02 air quality plan approval (#CM-85-IF-001 (A).		
	<ul> <li>a. All CEM data in block hourly intervals</li> <li>b. Operating and maintenance log books, that must contain the following information by day:</li> <li>c. The hours per day of operation of each furnace, including startup and shutdown.</li> <li>d. Maintenance of the furnace, emission controls, ash handling systems and all required monitoring devices.</li> <li>e. Equipment malfunctions (furnace, control equipment, monitoring &amp; recording devices)</li> <li>f. Calibration of all monitoring devices</li> <li>g. Operator qualifications and training</li> <li>h. All waste-oil analyses completed on behalf of the Permittee;</li> <li>15. Inspection, maintenance and testing results of the emission unit and the date upon which it was performed in accordance with 310 CMR 7.04(4)(a);</li> <li>16. The Permittee shall maintain sufficient records of its operations and monitoring information for the annual</li> </ul>		
	preparation of a Source Registration/Emission Statement Form as required by 310 CMR 7.12.  17. Records of emissions testing conducted to demonstrate compliance with the applicable requirements in Table 3 shall be in accordance with 310 CMR 7.13(1)(d).		

	Table 6		
EU#	REPORTING REQUIREMENTS		
11	In accordance with the provisions of the Prevention of Significant Deterioration plan approval #CM-85-PSD-IF-001, Final 7.02 air quality plan approval #CM-85-IF-001 (A), and Emission Control Plan Transmittal# W003303, the Permittee is subject to the terms and conditions presented in Table 6 and to other terms and conditions referenced herein.		
	1. As required by 310 CMR 7.08(2)(i), the facility shall submit an initial performance report, any re-test reports, 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 310 CMR 7.08(2)(i) 1. For reporting the selection of this schedule.		

Table 6				
EU#	EU# REPORTING REQUIREMENTS			
EU #1,				
1	22. Annual Reporting Requirements – The information specified in (a.) through (g.) below shall be reported:			
	<ul> <li>a. 310 CMR 7.08(2)(h) 2.a., e. through h. for the highest emission levels recorded.</li> <li>b. 310 CMR 7.08(2)(h) 4.a. and b.</li> <li>c. 310 CMR 7.08(2)(h) 5. – 6.</li> <li>d. 310 CMR 7.08(2)(h) 8. – 10.</li> <li>e. Summary of a. through d. for the previous year.</li> <li>f. The performance evaluation of the continuous emission monitoring system using the applicable performance specifications in Appendix B of 40 CFR, Part 60.</li> <li>g. A notification of intent to begin the reduced dioxin/furan compliance testing schedule specified in section 310 CMR 7.08(2)(g) 1. b. during the following calendar year.</li> <li>3. Annual reports shall be submitted to this Office no later than February 15 of each year following the calendar year in</li> </ul>			
EU #1, &# 2</td><td>which the data was collected.  4. 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 facility shall report the information in a format determined by the Department that is designed to be</td></tr><tr><td>understandable and informative to the public. The information shall be submitted in written format and electronic format.</td></tr><tr><td>5. The Permittee shall report to the Department of Environmental Protection, on a quarterly basis, a summary of continuous monitoring data for Sulfur Dioxide (SO<sub>2</sub>), Nitrogen Oxides (NOx), Carbon Monoxide (CO) and Opacity showing any excursions from allowable emission levels or operating conditions, (an explanation of any excursions shall be included as a requirement of Plan Approval CM-85-IF-001(A). The quarterly Excess Emission Reports (EER) shall include exceedance emission data for pollutants/parameters and monitor data capture information required under 310 CMR 7.08(2).</td></tr><tr><td>6. In accordance with the Emission Control Plan ECP TR# W003303 and #CM-85-IF-001(A) the CEM data for SO<sub>2</sub>, CO, NOx and opacity shall be reported in PPMVD @ 7% O<sub>2</sub> (for SO<sub>2</sub>, CO and NOx) and percent (for opacity). The reports are due by February 1, May 1, August 1 and November 1 of each year.</td></tr><tr><td>7. The Permittee shall summarize and submit to the Department the results of emission testing as prescribed in the Department's approved pretest protocol emission testing that was determined by the Department to be necessary to ascertain compliance with Department's regulations or design approval provisos in accordance with 310 CMR 7.13(1) and 310 CMR 7.13(2).</td></tr><tr><td>8. Upon the Department's request, any records required by the applicable requirements identified in Section 4 of the operating permit, or the emissions of any air contaminant from the facility, shall be submitted to the Department within 30 days of the request by the Department, or within a longer time period if approved in writing by the Department. Said response shall be transmitted on paper, on computer disk, or electronically at the discretion of the Department, pursuant to 310 CMR 7.00 Appendix C(10)(a) incorporated herein by reference.</td></tr><tr><td>9 The Permittee shall submit a Source Registration/Emission Statement form to the Department on an annual basis as required by 310 CMR 7.12(2) information pertaining to the facility which the Department requires shall be submitted annually.</td></tr><tr><td>10. In accordance with 310 CMR 7.12(3), the facility shall register on a form obtained from the Department such information as the Department may specify including:</td></tr><tr><td></td><td><ul> <li>a. A description of the facility, including a description of process and combustion equipment, a description of facility operating hours and operating schedule, a description of all raw materials and fuels used at the facility.</li> <li>b. Information required by 310 CMR 7.12(3) shall be submitted pursuant to 310 CMR 7.12(2).</li> </ul></td></tr></tbody></table>				

Table 6		
EU#	REPORTING REQUIREMENTS	
EU #1 & #2	11. In accordance with Plan Approval #CM-85-IF-001(A), the Department must be notified within 4 hours (or as soon as reasonably practical) by telephone, fax or electronically after the occurrence of any upsets or malfunctions to air pollution control that result in excess emissions or monitoring equipment downtime that does not meet minimum valid data requirements of Table 4 Condition 7 in accordance with Section 25 (Permit Deviations) and in writing within two (2) business days of such event. The report will include a description of what happened and what steps have been taken to prevent similar events in the future.  12. All required reports must be certified by a responsible official of the Permittee as provided in 310 CMR 7.00: Appendix C (10)(h).	

## 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 is currently not subject to the following requirements and specifically requested the following regulations be inserted into table 7.

Table 7			
REGULATION	DESCRIPTION		
310 CMR 7.07	Open Burning		
310 CMR 7.15	Asbestos		
310 CMR 7.16	Reduction of Single Occupant Commuter Vehicle Use		
40 U.S.C. 7401 Section 112 r-	Prevention of Accidental Releases		
310 CMR 7.25	Consumer and Commercial Products		

## 5. SPECIAL/GENERAL TERMS AND CONDITIONS

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

#### Table 8

#### SPECIAL/GENERAL TERMS AND CONDITIONS

The Permittee is subject to the following special terms and conditions in accordance with the Prevention of Significant Deterioration plan approval #CM-85-PSD-IF-001, Final 7.02 air quality plan approval (CM-85-IF-001(A), and Emission Control Plan (Transmittal #W003303).

#### A. SPECIAL CONDITONS

- 1. The Permittee shall follow good operating practices at all times.
- 2. The Permittee shall have ash handling doors closed at all times when in full operation except for when loading out metals from recycling operation on a daily basis and for routine repairs and maintenance activities where applicable. The ash handling system is automated in regards to the 30-yard ash containers on a rail system. The doors located on the North and South side of Ash Handling Building must remain partially open to accommodate the 30-yard containers. The doors are equipped with heavy-duty 24" weather strips that prevent potential fugitive emissions and shall provide closure for these two doors.
- 3. The Permittee shall comply with the requirements contained in Tables 2, 3, 4 and 5 on and after December 19, 2000 and in accordance with dates as allowed within the ECP. The final compliance date is December 31, 2003 unless an extension of the Mercury Waiver is granted in accordance with 310 CMR 7.08(2)(g) 4.e. Compliance with applicable requirements as set forth in 310 CMR 7.08(2)(8) and Section 4 of the ECP, shall be determined in accordance with 40 CFR 60.58b except as provided under 310 CMR 7.08(2)(g) 1,2,3,4,5 and 6 and as specified within the ECP.
- 4. The Permittee shall not combust sewage sludge in any of the municipal waste combustor units.
- 5. The Permittee shall have a mechanical sweeper equipped with a water dust suppression system utilized on a daily basis to maintain the on-site paved areas free of sand deposits.
- 6. Upon written request of the Department the Permittee shall conduct an optimization/minimization-testing program regarding the use of urea on the SNCR systems to insure that the emission of ammonia (ammonia slip) is minimized. Such testing shall be witnessed by a representative of the Department. A test report shall be submitted to the Department within 60 days of the completion of such testing. The test results will set an ammonia emission limit, which will be incorporated into this operating permit. The ammonia limit will set forth as a "state only" enforceable requirement in the ECP and operating permit.
- 7. During the limited mercury waiver period the Permittee shall perform optimization testing of mercury control on an annual basis and submit results to the Department. Annual optimization testing shall continue until compliance with the limit in 310 CMR 7.8(2)(f)2. is achieved.
- 8. The Permittee shall not burn Hazardous Waste as defined in 310 CMR 7.00, sludge, non-compatible wastes, nor un-permitted storage of the same.
- 9. Municipal refuse shall not be introduced to the boiler grates until such time as operating temperature is attained. Operating temperature is considered to be turbulent flue gas temperatures at 1800°F for at least one second retention time, except for periods, not to exceed 120 minutes each, during boiler start-up and shut-down, during which periods auxiliary fuel (natural gas) shall be used to maintain a minimum turbulent flue gas temperature of 1500°F for at least one second retention time subject to the foregoing, operating temperature shall be maintained whenever refuse is being burned on the grates.
- 10. Only natural gas shall be utilized in the auxiliary burners. A 10% natural gas annual capacity factor shall not be exceeded. The Carbon Monoxide (CO) emission limitation shall not apply during startup and shutdown periods when natural gas is combusted

#### Table 8

#### SPECIAL/GENERAL TERMS AND CONDITIONS

- 11. The resource recovery facility maximum individual boiler-operating rate shall be 323 million Btu per hour input, (equivalent to 36 tons per hour of municipal refuse with a heating value of 4500 Btu per pound of refuse).
- 12. The facility shall be operated by personnel properly trained for the equipment approved herein. The Department shall be notified in writing on how the facility will be staffed and trained. The Department reserves the right to be present during staff training, particularly with respect to air pollution control equipment and monitoring systems. Compliance with the Operator Training and Certification requirements in Table 8 Condition B.3. shall constitute compliance with this condition.
- 13. The Permittee shall allow Department representatives access to the plant site and pertinent records at all reasonable times for the purpose of making inspections, surveys, collecting samples, obtaining data, receiving and copying air contaminant emission discharge records and otherwise conducting all necessary functions related to this permit.
- 14. Storing and transporting from the facility site materials collected from the boiler grate and emission control system shall be done in covered, leak proof containers or other methods equally effective in preventing fugitive dust during storage and transfer.

#### 15. RATA/CGA REPORTING REQUIREMENTS

The Permittee in lieu of submitting the full test reports, only the data assessment summary reports required by 40 CFR 60 Appendix F Procedure 1 Section 7 shall be submitted to the regional office. The full test reports shall be maintained on site for five years as specified in this operating permit.

#### B. GENERAL CONDITONS

#### 1. 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 M.G.L. c.111, s.150A.

#### 2. 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) of the ECP, shall be determined in accordance with 40 CFR 60.58b, except as provided under 310 CMR 7.08(2)(g) 1., 2., 3., 4., 5., and 6, and as specified within the ECP. The initial performance test must be completed within 180 days after the final compliance date.

#### 3. <u>OPERATOR TRAINING AND CERTIFICATION</u>

In accordance with 310 CMR 7.08(2)(f) 6., the facility shall implement the following municipal waste combustor operator training and certification requirements. The Permittee:

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

#### Table 8

#### SPECIAL/GENERAL TERMS AND CONDITIONS

- b. 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 section (f) below). 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.
- c. 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 Municipal Waste Combustor Operating Course."
- d. 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 to, 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 applicable requirements in this regulation;
- 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 this regulation;
- 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 municipal waste combustor unit emissions; and
- xi. Reporting and record keeping procedures.
- e. Shall make available to the Department for inspection upon request all the operating manuals and records of training.
- f. 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 start up or August 21, 1999, whichever is later.

#### 5. <u>ADDITIONAL REQUIREMENTS</u>

- 1. In accordance with 310 CMR 7.08(2)(j) 5., additional requirements may be included in the emission control plan approval if the Department determines that the emissions from a municipal waste combustor plant's unit(s) alone or cumulatively with other municipal waste combustor 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.
- 2. The Department may modify the emission control plan at any time if the Department determines that a municipal waste combustor plant's unit(s) alone or cumulatively with other municipal waste combustor plant's unit(s) cause or contribute to a condition of air pollution or a violation of any other regulation.
- 3. Cumulative Impact: The Department did not perform cumulative impact analysis about the Wheelabrator Millbury Inc. since no other MWC facilities are located within the vicinity of the Wheelabrator Millbury Inc. MWC.

#### 6. <u>ALTERNATIVE OPERATING SCENARIOS</u>

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

## 7. <u>EMISSIONS TRADING</u>

#### (a) Intra-facility emission trading

The Permittee 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 Permittee 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. <u>COMPLIANCE SCHEDULE</u>

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. <u>COMPLIANCE CERTIFICATION</u>

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 the 30<sup>th</sup> day following December 31 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 the 30<sup>th</sup> day following December 31<sup>st</sup> and June 30<sup>th</sup> 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 are 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 are 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. Noncompliance 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 approval or 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 5 years after 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 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 and 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. <u>INSPECTION AND ENTRY</u>

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. <u>EMERGENCY CONDITIONS</u>

The Permittee shall be shielded from enforcement action brought for noncompliance with technology based<sup>1</sup> emission limitations specified in this permit as a result of an emergency<sup>2</sup>. 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

<sup>&</sup>lt;sup>1</sup> 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.

<sup>&</sup>lt;sup>2</sup> An "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, 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.

(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 24 of this permit. Reporting a permit deviation is not an affirmative defense for action brought for noncompliance.

The Permittee shall report to the Central Regional Office, Bureau of Waste Prevention, Compliance and Enforcement Section, the following deviations from permit requirements, within 4 hours (or as soon as reasonably practical) by telephone, fax or electronically and in writing within two (2) business days of discovery of such deviation:

- 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 Permit 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, two (2) 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 preventative measures taken.

Deviations that were reported by telephone or fax within 4 hours (or as soon as reasonably practical) of discovery, said deviations shall also be submitted in writing via the Operating Permit Deviation Report to the regional Bureau of Waste Prevention within two (2) days of discovery. For deviations, which do not require 4 hour (or as soon as reasonably practical) 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. <u>MODIFICATIONS</u>

- (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. 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.

#### 28. Nomenclature\*

 $O_2 = Oxygen$ 

% = Percent

°C = Degrees Centigrade

°F = Degrees Fahrenheit

< - Less Than

> - Greater Than

lb/hr - Pounds Per Hour

10<sup>6</sup> BTU/hr - 1,000,000 BTU Per Hour

AQCR - Air Quality Control Region

CD- Cadmium

**CEM - Continuous Emission Monitor** 

CO - Carbon Monoxide

CFR- Code of Federal Regulations

EPA - Environmental Protection Agency

EU# = Emission Unit Number

Cd = Cadmium

FMF FAC. NO. - Facility Master File Number

FMF RO NO. - Facility Master File Regulated Object Number

FT<sup>3</sup>/day - Cubic Feet Per Day

Hg = Mercury

HHV - Higher Heating Value

HCl = Hydrogen Chloride

ISO - Represent 59° F, 60% Relative Humidity, 29.92 Inches Mercury At Sea Level

MADEP - Massachusetts Department of Environmental Protection

mg/dscm = milligram per dry standard cubic meter

MMBtu/hr - Million British Thermal Units Per Hour

NH<sub>3</sub> - Ammonia

NOx - Nitrogen Oxides

ng/dscm = Nanogram per dry standard cubic meter

PB - Lead

PLT ID - Plant Identification

PM - Particulate Matter

PMCD- Particulate Matter Control Device

PPM - Parts Per Million

PPMVD = Parts Per Million Volume Dry

PTE - Potential To Emit

SO<sub>2</sub> - Sulfur Dioxide

SSEIS - Stationary Source Emission Inventory System

TPY - Tons Per Year

**VOC - Volatile Organic Compound** 

<sup>\*</sup>Not all abbreviations are present in every Operating Permit