



## Department of Environmental Protection

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### FINAL AIR QUALITY OPERATING PERMIT

**Modification date: 6/12/13**

Issued by the Massachusetts Department of Environmental Protection ("The Department" or "MassDEP") 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"]:**

NRG Canal, L.L.C.  
9 Freezer Road  
Sandwich, Massachusetts 02563

**INFORMATION RELIED UPON:**

Application No. 4V95058 and SE-13-022  
Transmittal No. 108004 and X256286

**FACILITY LOCATION:**

NRG Canal, L.L.C.  
Canal Generating Station  
9 Freezer Road  
Sandwich, Massachusetts 02563

**FACILITY IDENTIFYING NUMBERS:**

AQ ID: 120 0054  
FMF FAC No. 315656  
FMF RO No. 316423

**NATURE OF BUSINESS:**

Electrical Power Generation

**STANDARD INDUSTRIAL CODE (SIC):**

4911

**NORTH AMERICAN INDUSTRIAL  
CLASSIFICATION SYSTEM (NAICS):**

221112

**RESPONSIBLE OFFICIAL:**

Name: Robert C. O'Brien  
Title: Plant Manager

**FACILITY CONTACT PERSON:**

Name: Robert C. O'Brien  
Title: Plant Manager  
Phone: (508) 833-5300

**This operating permit shall expire on January 9, 2014.**

For the Department of Environmental Protection, Bureau of Waste Prevention

(Replacement Page Dated 6/12/13)

Permit Chief, Bureau of Waste Prevention

January 9, 2009

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 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 Canal Generating Station consists of two (2) steam electric units, each with a nominal generating capacity of 560 megawatts (MW) of electricity. Both Units 1 and 2 were originally constructed to fire No. 6 fuel oil. Unit 2 was modified in June 1996 to allow firing of either No. 6 fuel oil or natural gas as part of the facility NO<sub>x</sub> RACT ECP (4B94039 which was superseded by 4B97052). As defined in 310 CMR 7.00:Appendix C, Canal Generating Station is a major source for Oxides of Nitrogen (NO<sub>x</sub>), Volatile organic compounds (VOC), Sulfur Dioxide (SO<sub>2</sub>), Carbon Monoxide (CO), Particulate Matter (PM) and Hazardous Air pollutants (HAP). The onsite power generating equipment includes the following:

Unit 1, designated emission unit No. 1 (EU1), is a Babcock & Wilcox boiler that fires No. 6 fuel oil as the sole operational fuel, with No. 2 fuel oil as a startup fuel. The boiler produces supercritical steam at 3,600 psig and 1000° F for a Westinghouse electric steam turbine/generator. Unit No. 1 has 40 burners and an approximate maximum heat input rate of 5,083 MMBtu/hr and a generating capacity of approximately 560 MW. Unit No. 1 was designed for base load operation. Unit No. 1 began commercial operation in July 1968. Unit 1 is equipped with low-NO<sub>x</sub> burners, overfire air ports, flue gas recirculation, and Selective Catalytic Reduction (SCR) for the control of NO<sub>x</sub> emissions. PM emissions are controlled by an Electrostatic Precipitator (ESP). Applicable regulations for Unit 1 include 310 CMR 7.02: Plan Approval and Emission Limitations, 310 CMR 7.04: Fossil Fuel Utilization Facilities, 310 CMR 7.05: Fuels All Districts, 310 CMR 7.06: Visible Emissions, 310 CMR 7.12: Source Registration, 310 CMR 7.13: Stack Testing, 310 CMR 7.14: Monitoring Devices and Reports, 310 CMR 7.19: Reasonably Available Control Technology (RACT) for sources of Oxides of Nitrogen (NO<sub>x</sub>) (NO<sub>x</sub> RACT Plan Approval No. 4B97052), 310 CMR 7.22: Sulfur Dioxide Emissions Reductions for the Purpose of Reducing Acid Rain (Approval No. 4B90219), 310 CMR 7.28: NO<sub>x</sub> Allowance Trading Program (Plan Approval No. 4B01051), 310 CMR 7.29: Emissions Standards for Power Plants (Plan Approval No. 4B01044), 310 CMR 7.32: Massachusetts Clean Air Interstate Rule (MassCAIR), 310 CMR 7.70: Massachusetts CO<sub>2</sub> Budget Trading Program, 40 CFR Parts 72 and 75.

Unit 2, designated emission unit No. 2 (EU2), is a Babcock & Wilcox boiler that fires No. 6 fuel oil as the primary fuel, with natural gas as a backup fuel. The boiler can be started on either No. 2 fuel oil or natural gas. The boiler produces steam at 2,400 psig and 1000° F for a Westinghouse electric steam turbine/generator. Unit 2 has 32 burners and an approximate maximum heat input rate of 5,682 MMBtu/hr when firing No. 6 oil and 5,973 MMBtu/hr when firing natural gas, and a generating capacity of approximately 560 MW. Unit 2 began commercial operation in February 1976. Unit 2 is equipped with low-NO<sub>x</sub> burners, overfire air ports, flue gas recirculation, combustion tuning and Selective Non-Catalytic Reduction (SNCR) for the control of NO<sub>x</sub> emissions. PM emissions are controlled by an Electrostatic Precipitator (ESP). Applicable regulations for Unit 2 include 310 CMR 7.02: Plan Approval and Emission Limitations, 310 CMR 7.04: Fossil Fuel Utilization Facilities, 310 CMR 7.05: Fuels All Districts, 310 CMR

7.06: Visible Emissions, 310 CMR 7.12: Source Registration, 310 CMR 7.13: Stack Testing, 310 CMR 7.14: Monitoring Devices and Reports, 310 CMR 7.19: Reasonably Available Control Technology (RACT) for sources of Oxides of Nitrogen (NO<sub>x</sub>) (NO<sub>x</sub> RACT Plan Approval No. 4B97052), 310 CMR 7.22: Sulfur Dioxide Emissions Reductions for the Purpose of Reducing Acid Rain (Approval No. 4B90219), 310 CMR 7.28: NO<sub>x</sub> Allowance Trading Program (Plan Approval No. 4B01051), 310 CMR 7.29: Emissions Standards for Power Plants (Plan Approval No. 4B01044), 310 CMR 7.32: Massachusetts Clean Air Interstate Rule (MassCAIR), 310 CMR 7.70: Massachusetts CO<sub>2</sub> Budget Trading Program, 40 CFR Parts 72 and 75.

The facility also includes the following ancillary equipment that are considered emission units in the Permittee's Operating Permit application:

Auxiliary Boiler A and B (EU3 & EU4) are Babcock & Wilcox package boilers model FM 101-88 with a heat input rate of 85.77 MMBtu/hr when firing No. 2 fuel oil and 88.92 MMBtu/hr when firing natural gas. Auxiliary Boiler A and B were installed in April of 1997 and April of 1996, respectively, in accordance with 310 CMR 7.02 and Conditional Approval No. 4B95123. Auxiliary Boilers A and B are equipped with low-NO<sub>x</sub> burners and flue gas recirculation for NO<sub>x</sub> reduction. Auxiliary Boilers A and B are subject to the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR Part 60, Subpart Dc.

The Hydrogen coolant sealant vents (EU5) for the Unit 1 and Unit 2 Steam Turbine Generators have the potential to emit Hydrogen through system leaks and venting. Applicable requirements for this emission unit consist of the necessary recordkeeping and reporting of emissions as required by 310 CMR 7.12.

Emergency Diesel Generator No. 1 (EU6) is a Cummins model VT12-700-GC and has a nameplate electrical output capacity of 350 kW. Emergency Diesel Generator No. 2 (EU7) is a Cummins model VT12-700-GC and has a nameplate electrical output capacity of 350 kW. The facility has stated in Operating Permit Application No. 4V95058 that both engines have an approximate heat input rate of 4.1 MMBtu/hr burning No. 2 fuel oil. The emergency diesels were installed in 1968 and 1976 respectively and are operated in accordance with 310 CMR 7.02(2)(b)8. and 310 CMR 7.02(8)(i).

A natural gas fired heater (EU8) with a heat input rate of 6 MMBtu/hr is located on site and is below the heat input threshold requiring plan approval, but has applicable requirements under 310 CMR 7.02(8) and 310 CMR 7.04(4)(a). EU8 is used to heat pipeline natural gas prior to firing in the facility boilers. This heater has the ability to use steam as the heating medium instead of firing natural gas.

The facility maintenance shop includes cold cleaning degreasers-parts washers (EU9). These parts washers are subject to and operated in accordance with 310 CMR 7.03(8) and 310 CMR 7.18(8)(a).

Sections 2 through 4 of this Operating Permit include Table 1, which lists the equipment (emission units or EUs) subject to this Operating Permit. Table 2, which describes the exempt activities that are not mentioned further in the Operating Permit. Tables 3, 4, 5, and 6 describe the applicable requirements that the EUs are subject to in the Operating Permit including emission limits, restrictions, monitoring/testing, recordkeeping and reporting as stated in the applicable regulations and plan approvals. Table 7 contains regulations that do not presently apply to this facility. Section 5 contains Special Terms and Conditions that are not contained or sufficiently described in Tables 3, 4, 5 and 6.

## **2. EMISSION UNIT IDENTIFICATION**

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

<b>Table 1</b>			
<b>Emission Unit (EU#)</b>	<b>Description of Emission Unit</b>	<b>EU Design Capacity</b>	<b>Pollution Control Device (PCD)</b>
EU1	Babcock & Wilcox Model No. UP-38 Boiler #1	5,083 MMBtu/hr (Oil)	Research Cottrell TKC103 Electrostatic Precipitator ABB AAPES-1421 Selective Catalytic Reduction (SCR)
EU2	Babcock & Wilcox Model No. RB-494 Boiler #2	5,682 MMBtu/hr (Oil) 5,973 MMBtu/hr (Gas)	Research Cottrell TKC103 Electrostatic Precipitator Combustion Components Associates (custom) Selective Non-Catalytic Reduction (SNCR)
EU3	Babcock & Wilcox Model No. FM101-88 Auxiliary Boiler A	85.77 MMBtu/hr (Oil) 88.92 MMBtu/hr (Gas)	N/A
EU4	Babcock & Wilcox Model No. FM101-88 Auxiliary Boiler B	85.77 MMBtu/hr (Oil) 88.92 MMBtu/hr (Gas)	N/A
EU5	Steam Turbine Coolant System vents	N/A	N/A
EU6	Cummins Emergency Diesel Generator No. 1	4.1 MMBtu/hr	N/A
EU7	Cummins Emergency Diesel Generator No. 2	4.1 MMBtu/hr	N/A
EU8	Natural Gas Heater (Natural Gas Fired)	6.0 MMBtu/hr	N/A
EU9	Parts Washers (Cold Cleaning Degreasers)	Design features identified in 310 CMR 7.18(8)(a)	N/A

### **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):

<b>Table 2</b>	
<b>Description of Current Exempt Activities</b>	<b>Reason</b>
<p>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. Emissions from these activities shall be reported on the annual emissions statement pursuant to 310 CMR 7.12.</p>	<p>310 CMR 7.00:Appendix C(5)(h)</p>

### **4. APPLICABLE REQUIREMENTS**

#### **A. EMISSION LIMITS AND RESTRICTIONS**

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

<b>Table 3</b>					
<b>EU #</b>	<b>Fuel/Raw Materials</b>	<b>Pollutant</b>	<b>Emissions Limit/Standard</b>	<b>Restrictions</b>	<b>Applicable Regulation and/or (Approval No.)</b>
EU1	No. 6 Fuel Oil (primary) No. 2 Fuel Oil (ignition only)	NO <sub>x</sub>	0.28 lbs/MMBtu <sup>(1)</sup>	N/A	310 CMR 7.19(4)(a)3.b. and 4B97052
			1,423 lbs/hr <sup>(2)</sup>	N/A	4B97052
		CO	500 ppmvd @ 3% O <sub>2</sub> <sup>(1)</sup>	N/A	310 CMR 7.19(4)(f) and 4B97052
			0.39 lbs/MMBtu <sup>(1)</sup> 1,982.4 lbs/hr <sup>(2)</sup>	N/A	4B97052
	Specification Used Oil Fuel <sup>(16)</sup>	S in Fuel	0.55 lbs/MMBtu	50,000 gal/12 MRP	310 CMR 7.04(9), 310 CMR 7.05(8) and 4B94024
		Halogen	≤ 1,000 ppm		
		Lead	< 100 ppm		
		Arsenic	≤ 5 ppm		

**Table 3**

EU #	Fuel/Raw Materials	Pollutant	Emissions Limit/Standard	Restrictions	Applicable Regulation and/or (Approval No.)
EU1	Specification Used Oil Fuel <sup>(16)</sup>	Cadmium	≤ 2 ppm	50,000 gal/12 MRP	310 CMR 7.04(9), 310 CMR 7.05(8) and 4B94024
		Chromium	≤ 10 ppm		
		PCB's	< 50 ppm		
	All Fuels	NH <sub>3</sub>	5 ppmvd @ 3% O <sub>2</sub> <sup>(17)(15)</sup> 0.0024 lb/MMBtu <sup>(17)</sup> 12.2 lbs/hr <sup>(17)</sup> 53 tpy <sup>(18)</sup>	N/A	4B05014
EU2	No. 6 Fuel Oil (primary)	NO <sub>x</sub>	0.28 lbs/MMBtu <sup>(1)</sup>	N/A	310 CMR 7.19(4)(a)3.b. and 4B97052
	No. 2 Fuel Oil (ignition only)		1,591 lbs/hr <sup>(2)</sup>	N/A	4B97052
	Natural Gas (primary and ignition)		0.28 lbs/MMBtu <sup>(1)</sup>	N/A	310 CMR 7.19(4)(a)3.b. and 4B97052
			1,672 lbs/hr <sup>(2)</sup>	N/A	4B97052
	All Fuels		See "Special Terms and Conditions", Section 5.(1)		4B05014 and 4B07013
	No. 6 Fuel Oil (primary)	CO	1.56 lbs/MMBtu <sup>(1)</sup>	N/A	4B97052
	No. 2 Fuel Oil (ignition only)		8,863.9 lb/hr <sup>(2)</sup>		
	Natural Gas (primary and ignition)		1.48 lbs/MMBtu <sup>(1)</sup>		
			8,840 lb/hr <sup>(2)</sup>		
	Co-firing No. 6 Fuel Oil and Natural Gas		PS CO <sup>(3)</sup>	N/A	310 CMR 7.19(15) and 4B97052
	No. 6 Fuel Oil, Natural Gas and Co-firing		2,000 ppmvd @ 3% O <sub>2</sub> <sup>(1)</sup>	N/A	310 CMR 7.19(4)(f) and 4B97052
	Fuel Oil	NH <sub>3</sub>	5 ppmvd @ 3% O <sub>2</sub> <sup>(17)(15)</sup> 0.0024 lb/MMBtu <sup>(17)</sup> 13.7 lbs/hr <sup>(17)</sup> 60 tpy <sup>(18)</sup>	N/A	4B05014

**Table 3**

EU #	Fuel/Raw Materials	Pollutant	Emissions Limit/Standard	Restrictions	Applicable Regulation and/or (Approval No.)
EU2	Natural Gas	NH <sub>3</sub>	5 ppmvd @ 3% O <sub>2</sub> <sup>(17)(15)</sup> 0.0024 lb/MMBtu <sup>(17)</sup> 14.3 lbs/hr <sup>(17)</sup> 63 tpy <sup>(18)</sup>	N/A	4B05014
EU1, EU2	All Fuels	NO <sub>x</sub>	See “Special Terms and Conditions” Section 5. (c)		310 CMR 7.28 and 4B01051
			Shall not exceed 1.5 lbs/MWh calculated over any consecutive 12 month period, recalculated monthly. <b>(State Only)</b>		310 CMR 7.29(5)(a)1.a. 4B01044 ACO-BO-04-Z012-SETT
			Shall not exceed 3.0 lbs/MWh calculated over any individual calendar month. <b>(State Only)</b>	Effective October 1, 2008	310 CMR 7.29(5)(a)1.b. 4B01044 ACO-BO-04-Z012-SETT
			See “Special Terms and Conditions” Section 5. (n)		310 CMR 7.32
		CO	Reserved. <sup>(13)</sup>		310 CMR 7.29(5)(a)4. and 4B01044
		SO <sub>2</sub>	Shall not exceed 6.0 lbs/MWh calculated over any consecutive 12 month period, recalculated monthly. <b>(State Only)</b>	Effective October 1, 2006 through September 30, 2008	310 CMR 7.29(5)(a)2.a. 4B01044 ACO-BO-04-Z012-SETT
			Shall not exceed 3.0 lbs/MWh calculated over any consecutive 12 month period, recalculated monthly. <sup>(22)</sup> <b>(State Only)</b>	Effective October 1, 2008	310 CMR 7.29(5)(a)2.b.i. 4B01044 ACO-BO-04-Z012-SETT
			Shall not exceed 6.0 lbs/MWh calculated over any individual month. <sup>(22)</sup> <b>(State Only)</b>	Effective October 1, 2008	310 CMR 7.29(5)(a)2.b.ii. 4B01044 ACO-BO-04-Z012-SETT
			See “Special Terms and Conditions” Section 5. (d)		40 CFR Part 72 4B08021
			See “Special Terms and Conditions” Section 5. (n)		310 CMR 7.32
≤ 1.2 lbs/MMBtu <sup>(6)</sup>	N/A		310 CMR 7.22 and 4B90219		



**Table 3**

EU #	Fuel/Raw Materials	Pollutant	Emissions Limit/Standard	Restrictions	Applicable Regulation and/or (Approval No.)	
EU1, EU2	All Fuels	CO <sub>2</sub>	Emissions of carbon dioxide from the affected facility in the calendar years 2006, 2007, and 2008, expressed in tons, from Part 72 units located at the affected facility shall not exceed historical actual emissions of 5,331,820 tons. <sup>(14)</sup> <sup>(19)</sup> <sup>(20)</sup> <b>(State Only)</b>	N/A	310 CMR 7.29(5)(a)5.a. 4B01044 ACO-BO-04-Z012-SETT	
			Shall not exceed 1800 lbs/MWh in the calendar year. <sup>(19)</sup> <sup>(21)</sup> <b>(State Only)</b>	Effective for the 2008 calendar year	310 CMR 7.29(5)(a)5.b. 4B01044 ACO-BO-04-Z012-SETT	
			Hold CO <sub>2</sub> allowances available for compliance <sup>(23)</sup> <sup>(24)</sup> <b>(State Only)</b>		310 CMR 7.70(1)(e)3.a. and 4B08040	
			CO <sub>2</sub> Allowance Transfers <b>(State Only)</b>		310 CMR 7.70(7) and 4B08040	
		PM 2.5	Reserved. <sup>(13)</sup>	310 CMR 7.29(5)(a)6. and 4B01044		
			See “Special Terms and Conditions” Section 5. (n)	310 CMR 7.32		
		PM	0.02 lbs/MMBtu <sup>(7)</sup>	N/A	4B94178	
		Opacity	≤ 15 percent <sup>(11)</sup> (6-minute average, see NOTE 11) At no time to exceed 40%	N/A	4B94178 ACOP-SE-06-7003 310 CMR 7.06(1)(b)	
		Smoke	< No. 1 of Chart <sup>(9)</sup> , except ≥ No.1 to < No. 2 of Chart for ≤ 6 minutes during any one hour, no time to exceed No. 2 of the Chart.	N/A	310 CMR 7.06(1)(a)	
		No. 6 Fuel Oil	S in Fuel	≤ 0.825 lbs/MMBtu (approx. 1.5% S by weight) ≤ 1.21 lbs/MMBtu <sup>(12)</sup>	N/A	4B95123 310 CMR 7.05(1)(b) and 4B95123
		No. 2 Fuel Oil	S in Fuel	≤ 0.17 lbs/MMBtu	N/A	310 CMR 7.05(1)(a)2. and 4B94178
		All Fuels	All	See “Special Terms and Conditions” Section 5. (m)		4B07013

**Table 3**

EU #	Fuel/Raw Materials	Pollutant	Emissions Limit/Standard	Restrictions	Applicable Regulation and/or (Approval No.)	
EU3, EU4 (per unit)	No. 2 Fuel Oil <sup>(10)</sup> (primary)	NO <sub>x</sub>	0.10 lbs/MMBtu 8.6 lbs/hr <sup>(4)</sup>	N/A	4B95123	
		SO <sub>2</sub>	0.051 lbs/MMBtu 4.4 lbs/hr <sup>(4)</sup>			
		PM	0.05 lbs/MMBtu <sup>(7)</sup> 4.3 lbs/hr <sup>(4)(7)</sup>			
		CO	0.058 lbs/MMBtu 5.0 lbs/hr <sup>(4)</sup>			
		VOC	0.02 lbs/MMBtu 1.7 lbs/hr <sup>(4)</sup>			
		S in Fuel	0.0255 lbs/MMBtu (Approx. 0.05% by weight)			Subpart Dc - 40 CFR Part 60.42c(d)
			0.5 % by weight			
		Opacity	≤ 20 percent (6-minute average), except ≤ 27 percent for up to one 6-minute average per hour			Subpart Dc - 40 CFR Part 60.43c(c)
All	Maximum Heat Rate Input (No. 2 Fuel Oil): 85.77MMBtu/hr 63,813 MMBtu per month		4B95123			
EU3, EU4 (per unit)	Natural Gas <sup>(10)</sup> (secondary)	NO <sub>x</sub>	0.05 lbs/MMBtu 4.5 lbs/hr <sup>(4)</sup>	N/A	4B95123	
		SO <sub>2</sub>	0.006 lbs/MMBtu 0.5 lbs/hr <sup>(4)</sup>			
		PM	0.005 lbs/MMBtu <sup>(7)</sup> 0.44 lbs/hr <sup>(4)(7)</sup>			
		CO	0.074 lbs/MMBtu 6.6 lbs/hr <sup>(4)</sup>			
		VOC	0.03 lbs/MMBtu 2.7 lbs/hr <sup>(4)</sup>			
		All	Maximum Heat Rate Input (Natural Gas): 88.92MMBtu/hr 66,156 MMBtu per month per unit			

**Table 3**

EU #	Fuel/Raw Materials	Pollutant	Emissions Limit/Standard	Restrictions	Applicable Regulation and/or (Approval No.)
EU3, EU4 (per unit)	All Fuels	Opacity	≤ 15 percent	N/A	4B95123
		Smoke	< No. 1 of Chart <sup>(9)</sup> , except ≥ No.1 to < No. 2 of Chart for ≤ 6 minutes during any one hour, no time to exceed No. 2 of the Chart.		310 CMR 7.06(1)(a)
EU3, EU4 (combined)	No. 2 Fuel Oil <sup>(10)</sup> (primary)  Natural Gas <sup>(10)</sup> (secondary)	NO <sub>x</sub>	6.4 Tons per Month <sup>(5)</sup> 29.3 Tons per Year <sup>(5) (8)</sup>	N/A	4B95123
		SO <sub>2</sub>	3.27 Tons per Month <sup>(5)</sup> 14.9 Tons per Year <sup>(5) (8)</sup>		
		PM	3.20 Tons per Month <sup>(5) (7)</sup> 14.7 Tons per Year <sup>(5) (7) (8)</sup>		
		CO	4.90 Tons per Month <sup>(5)</sup> 21.7 Tons per Year <sup>(5) (8)</sup>		
		VOC	1.98 Tons per Month <sup>(5)</sup> 8.8 Tons per Year <sup>(5) (8)</sup>		
	All Fuels	All	Maximum Heat Rate Input (all fuels): 586,000 MMBtu per 12 MRP for EU3 and EU4 combined		
EU5	Hydrogen	Hydrogen	N/A	N/A	4V95058
EU6, EU7	No. 2 Fuel Oil	All	N/A	300 hrs/12 MRP	310 CMR 7.02(2)(b) 8. and 310 CMR 7.02(8)(i)
		S in Fuel	0.3% by weight (delivery prior to July 1, 2007) ≤ 15 ppm [0.0015% by weight] (delivery after July 1, 2007)	N/A	310 CMR 7.02(8)(i)5. 310 CMR 7.05(1)(a)2. 310 CMR 7.05(1)(a)3.
EU8	Natural Gas	PM	0.10 lbs/MMBtu <sup>(7)</sup>	N/A	310 CMR 7.02(8)(h), Table 6

<b>Table 3</b>					
EU #	Fuel/Raw Materials	Pollutant	Emissions Limit/Standard	Restrictions	Applicable Regulation and/or (Approval No.)
EU6, EU7, EU8	All Fuels	Opacity	≤ 20 percent, except 20 to ≤ 40 percent for ≤ 2 minutes during any one hour, at no time to exceed 40 percent.	N/A	310 CMR 7.06(1)(b)
		Smoke	< No. 1 of Chart <sup>(9)</sup> , except ≥ No.1 to < No. 2 of Chart for ≤ 6 minutes during any one hour, no time to exceed No. 2 of the Chart.	N/A	310 CMR 7.06(1)(a)
EU9	Non-halogenated Solvent	VOC	Operating procedures identified in 310 CMR 7.18(8)(e)	Solvent consumption < 100 gallons per month per unit	310 CMR 7.03(8) 310 CMR 7.18(8)(a)

**Table 3 Notes:**

- NOTE 1: Emission Limit based on a calendar day average.
- NOTE 2: The averaging time for determining compliance with the maximum allowable emission rates during Start Up and Shutdown shall be based on a block average of the appropriate start up/shutdown time period, in hours, and shall be expressed in terms of pounds of emissions per hour. Start Up and Shutdown are defined in Section 5(e), (f) and (g) Special Terms and Conditions.
- NOTE 3: CO Emission Limit (**PS<sub>CO</sub>**) shall be determined in accordance with the following equations and based on a calendar day average:
- For EU2:
- $$PS_{CO} = \frac{1.56 \times (HI_1) + 1.48 \times (HI_2)}{HI_1 + HI_2}$$
- PS<sub>CO</sub>** = prorated CO emission limit when burning different fuels, lb/MMBtu  
**HI<sub>1</sub>** = heat input for No. 6 Fuel Oil, MMBtu  
**HI<sub>2</sub>** = heat input for Natural Gas, MMBtu
- NOTE 4: Compliance with the emission limit(s)/standard(s) shall be based on a one-hour averaging time.
- NOTE 5: See Section 5 Special Terms and Conditions (k).
- NOTE 6: In accordance with 310 CMR 7.22(1), compliance is based on an annual calendar average.
- NOTE 7: Particulate matter measured according to the applicable procedures specified in 40 CFR Part 60 Appendix A, Method 5.
- NOTE 8: “Tons per Year” of emissions are based on a rolling twelve-month period.
- NOTE 9: Chart means the Ringelmann Scale for grading the density of smoke, as published by the United States Bureau of Mines and as referred to in the Bureau of Mines Information Circular No. 8333, or any smoke inspection guide approved by the Department.

- NOTE 10: For the purpose of calculating emissions resulting from each fuel fired in EU3 and EU4 the following fuel heat content values shall be used:
- a. No. 2 Fuel Oil = 140,000 B.t.u. per gallon
  - b. Natural Gas = 1,000 B.t.u. per cubic foot
- NOTE 11: In accordance with Plan Approval No. 4B94178 and Administrative Consent Order No. ACOP-SE-06-7003, the opacity of visible emissions from the facility shall be determined in accordance with EPA Test Method 9, as specified in 40 CFR Part 60, Appendix A and the “Cape Cod Canal Power Station Method 9 Observations Site Plan”. This limit shall also apply to any detached plumes. The installed, certified Continuous Opacity Monitoring Systems (COMS) data shall be used for compliance demonstration purposes in lieu of Method 9 visible emissions observations.
- NOTE 12: The Permittee may perform a refined air quality dispersion study for the purpose of demonstrating compliance with the short-term SO<sub>2</sub> National Ambient Air Quality Standards (NAAQS) while firing 2.2% sulfur (approximately 1.21 lbs/MMBtu) fuel oil and submit the results to the Department. If the results of a refined air quality dispersion modeling study demonstrate compliance with SO<sub>2</sub> NAAQS then The Permittee may request Department approval to burn 2.2% sulfur (approximately 1.21 lbs/MMBtu) fuel oil in the future. The requirements identified above shall not be interpreted to cause any subsequent approval to burn 2.2% sulfur (approximately 1.21 lbs/MMBtu) fuel oil in the future to be considered a “major modification” of the facility as defined under the Prevention of Significant Deterioration program (40 CFR Part 52.21) or the Non-Attainment New Source review program (310 CMR 7.00 Appendix A).
- NOTE 13: The Department has reserved this area in the regulations for further development.
- NOTE 14: If the Department has received a technically complete Plan Approval application under 310 CMR 7.02 for a new or re-powered electric generating unit subject to 40 CFR Part 72 at an affected facility prior to May 11, 2001, then the emissions from the new or re-powered unit may be included in the calculation of historical actual emissions. The calculation of historical actual emissions which includes emissions from a new or re-powered unit shall not include emissions from any unit shutdown or removed from operation at the affected facility that is included in the technically complete Plan Approval application pursuant to 310 CMR 7.02.
- NOTE 15: In accordance with Plan Approval 4B05014, The Permittee shall make reasonable efforts to control ammonia emissions (ammonia slip) from both Unit 1 and Unit 2 so that the emissions do not exceed 2 ppmvd corrected to 3% O<sub>2</sub>.
- NOTE 16: See Section 5 Special Terms and Conditions (j).
- NOTE 17: One hour average, measured at the stack.
- NOTE 18: Tons per consecutive 12-month period.
- NOTE 19: In accordance with 310 CMR 7.29(1), CO<sub>2</sub> emission standards set forth in 310 CMR 7.29(5)(a)5.a. and b. shall not apply to emissions that occur after December 31, 2008.
- NOTE 20: In accordance with 310 CMR 7.29(5)(a)5.c., compliance with 310 CMR 7.29(5)(a)5.a. may be demonstrated by using emission reduction, avoided emission or sequestered emissions verified under 310 CMR 7.00: *Appendix B(7)* to offset emissions above the historical actual emissions, provided the Department determines such emission reductions, avoided emissions or sequestered emissions are real, additional, verifiable, permanent, and enforceable, as defined in 310 CMR 7.00: *Appendix B(7)* or by using the GHG Expendable Trust under the conditions specified in 310 CMR 7.00: *Appendix B(7)(d)5*.

- NOTE 21: In accordance with 310 CMR 7.29(5)(a)5.d., compliance with 310 CMR 7.29(5)(a)5.b. may be demonstrated by using emission reduction, avoided emission or sequestered emissions verified under 310 CMR 7.00: *Appendix B(7)* to offset excess emissions, provided the Department determines such emission reductions, avoided emissions or sequestered emissions are real, additional, verifiable, permanent, and enforceable, as defined in 310 CMR 7.00: *Appendix B(7)* or by using the GHG Expendable Trust under the conditions specified in 310 CMR 7.00: *Appendix B(7)(d)5*. Excess emissions are any emissions above the net electrical output of the facility times 1800 lbs./MWh.
- NOTE 22: In accordance with 310 CMR 7.29(5)(b)3., for the emission standards in 310 CMR 7.29(5)(a)2.b., using SO<sub>2</sub> allowances created pursuant to 40 CFR part 72. Three allowances shall be used to offset each ton of excess emissions above the emission standard. Such SO<sub>2</sub> allowances shall be in addition to those used by the facility to comply with the requirements of 40 CFR part 72, and shall be transferred to the Department and retired for the benefit of the environment.
- NOTE 23: Compliance with CO<sub>2</sub> allowances shall be based on the control period. The control period is a three-calendar-year time period, unless extended to four years upon occurrence of a stage two trigger event. Control period and stage two trigger event are defined at 310 CMR 7.70(1)(b).
- NOTE 24: Hold CO<sub>2</sub> allowances available for compliance deductions under 310 CMR 7.70(6)(e), as of the CO<sub>2</sub> allowance transfer deadline, in the source's compliance account in an amount not less than the total CO<sub>2</sub> emissions for the control period from all CO<sub>2</sub> budget units at the source, as determined in accordance with 310 CMR 7.70(6) and (8).

**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) and applicable requirements contained in Table 3:

<b>Table 4</b>	
<b>EU#</b>	<b>MONITORING/TESTING REQUIREMENTS</b>
EU1	1) In accordance with Plan Approval No. 4B94024, monitor the quantity of Specification Used Oil Fuel burned each month for incorporation into a twelve month rolling total.
	2) In accordance with Plan Approval No. 4B94024, test/analyze representative samples of each individual specification used oil fuel stream no less than once a year to demonstrate compliance with the applicable regulations, standards and limits specified in Table 3 and Special Condition Section 5.(j) of Operating Permit No. 4V95058.
	3) In accordance with Plan Approval No. 4B05014, compliance with NH <sub>3</sub> emission limits/standards shall be demonstrated with a Continuous Emissions Monitoring System (CEMS). The NH <sub>3</sub> CEMS shall comply with the CEM linearity check and RATA frequencies and grace periods specified in 40 CFR Part 75 in conducting linearity checks and RATAs. The relative accuracy of the NH <sub>3</sub> CEMS shall be the greater of +/- 15% or +/- 0.75 ppmvd @ 3% O <sub>2</sub> or +/- 0.0004 lb/MMBtu or lb/hr = 0.0004lb/MMBtu * WA_MMBtu/hr, where WA_MMBtu/hr = the weighted average MMBtu/hr determined by the DAHS over the hours during which the RATA was performed. The NH <sub>3</sub> CEMS shall obtain valid data for a minimum of 90% of the hours per calendar quarter during which the emission unit operated.
	4) In accordance with Plan Approval No.4B07013 and the facility SOMP, monitor the secondary current (DC milliamps) for each electric field (transformer-rectifier set) on the Electrostatic Precipitator (ESP) a minimum of once per day to ensure proper operation and to have a reasonable assurance of compliance with PM emission limits.
EU2	5) In accordance with Plan Approval No. 4B05014, Unit 2 shall install a NH <sub>3</sub> Continuous Emissions Monitoring System (CEMS) within 180 days after the end of any consecutive 12-month period recalculated monthly during which the Unit 2 SNCR system is utilized (i.e. NH <sub>3</sub> is injected at any flow rate) for 2,000 hours or more. Once this 2,000 hour SNCR operational trigger is reached in any consecutive period of 12 months, the requirement to maintain the NH <sub>3</sub> CEM(s) will remain in effect even if the use of the SNCR decreases to less than 2,000 hours in subsequent consecutive 12-month periods. If a NH <sub>3</sub> CEMS is required on Unit 2, it shall be certified within 60 days of installation.
	6) In accordance with Plan Approval No. 4B05014, if a NH <sub>3</sub> CEMS is required, compliance with NH <sub>3</sub> emission limits/standards shall be demonstrated with a Continuous Emissions Monitoring System (CEMS). The NH <sub>3</sub> CEMS shall comply with the CEMS linearity check and RATA frequencies and grace periods specified in 40 CFR Part 75 in conducting linearity checks and RATAs. The relative accuracy of the NH <sub>3</sub> CEMS shall be the greater of +/- 15% or +/- 0.75 ppmvd @ 3% O <sub>2</sub> or +/- 0.0004 lb/MMBtu or lb/hr = 0.0004lb/MMBtu * WA_MMBtu/hr, where WA_MMBtu/hr = the weighted average MMBtu/hr determined by the DAHS over the hours during which the RATA was performed. The NH <sub>3</sub> CEMS shall obtain valid data for a minimum of 90% of the hours per calendar quarter during which the emission unit operated.
	7) In accordance with Plan Approval No.4B07013 and the facility SOMP, monitor the primary voltage (AC volts), primary current (AC amps), secondary voltage (DC volts), secondary current (DC milliamps) and spark rate for each electric field (transformer-rectifier set) on the Electrostatic Precipitator (ESP) a minimum of once per day to ensure proper operation and to have a reasonable assurance of compliance with PM emission limits.

**Table 4**

EU#	MONITORING/TESTING REQUIREMENTS
EU1, EU2	8) In accordance with Plan Approval No. 4B97052, 310 CMR 7.14(2) and 310 CMR 7.19(13)(a)1., compliance with NO <sub>x</sub> emission limits/standards shall be demonstrated with a Continuous Emission Monitoring System (CEMS). The NO <sub>x</sub> CEMS shall meet the requirements specified in 310 CMR 7.19(13)(b). Any person required to monitor NO <sub>x</sub> emissions pursuant to 40 CFR Part 75 or 310 CMR 7.28 shall use the procedures contained therein or in 310 CMR 7.19(13)(b) 1. through 12. to gather and analyze data and provide quality assurance and quality control in order to determine compliance with 310 CMR 7.19, except that the missing data routine and bias adjustment factors contained in 40 CFR Part 75 do not need to be applied.
	9) In accordance with Approval No. 4B01051 and 310 CMR 7.28(11)(a)(1), any person who owns, leases, operates or controls a budget unit that commences operation before January 1, 2002 shall install, operate and successfully complete all certification testing requirements for monitoring heat input, NO <sub>x</sub> emission rate and NO <sub>x</sub> mass emissions pursuant to the requirements of 40 CFR Part 75 Subpart H by May 1, 2002.
	10) In accordance with Approval No. 4B01051 and 310 CMR 7.28(11)(a)(4), all monitoring systems are subject to initial performance testing and period calibration, accuracy testing and quality assurance/quality control testing as specified in 40 CFR Part 75, Subpart H.
	11) As required by Approval No. 4B01051 and 310 CMR 7.28(11)(a)(5), during a period when valid data is not being recorded by a monitoring system approved under 310 CMR 7.28, the missing or invalid data must be replaced with default data in accordance with the provisions of 40 CFR Part 75.70(f). The applicable missing data procedures are specified in 40 CFR Part 75 for NO <sub>x</sub> emission rate (in lb/MMBtu), heat input, stack gas volumetric flow rate, oil density, GCV or fuel flow rate.
	12) In accordance with Approval No. 4B01051, existing units that have completed the certification test requirements under 310 CMR 7.28 must meet all ongoing Quality Assurance testing requirements specified in 40 CFR Part 75.
	13) In accordance with Approval No. 4B01051 and 310 CMR 7.28(11)(a)(6), NO <sub>x</sub> emissions data must be reported to the NO <sub>x</sub> Emissions Tracking System (NETS) in accordance with 310 CMR 7.28(13).
	14) In accordance with Approval No. 4B01051 and 310 CMR 7.28(11)(a)(7), budget units must report data pursuant to the requirements of 310 CMR 7.28(11) for every hour.
	15) In accordance with Approval No. 4B01051 and 310 CMR 7.28(11)(b), any person who owns, leases, operates or controls a budget unit subject to 310 CMR 7.28 must comply with the notification requirements in 40 CFR Part 75.61, where applicable.
	16) In accordance with Approval No. 4B01044 and 310 CMR 7.29(7), actual emissions shall be monitored for individual units and monitored as a facility total for all units included in the calculation demonstrating compliance. Actual emissions shall be monitored in accordance with 40 CFR Part 75 for SO <sub>2</sub> , CO <sub>2</sub> , and NO <sub>x</sub> . The Department shall detail the monitoring methodology for Hg, CO, and PM 2.5 at the time regulations are promulgated by the Department for those parameters.
	17) In accordance with Approval No. 4B01044 and 310 CMR 7.29(7), monitor actual net electrical output, expressed in megawatt-hours. Actual net electrical output shall be provided for individual units and as a facility total for all units included in the calculation demonstrating compliance.
	18) In accordance with Plan Approval No. 4B97052 and 310 CMR 7.19(13)(a)1., compliance with CO emission limits/standards shall be demonstrated with a CEMS as specified in 310 CMR 7.19(13)(b). CO emissions shall be monitored as specified in 310 CMR 7.19(13)(b)1. through 12. and use the data reduction procedures contained in either 40 CFR Part 75 or 310 CMR 7.19(b)9.



**Table 4**

EU#	MONITORING/TESTING REQUIREMENTS
EU1, EU2	19) In accordance with Appendix D of 40 CFR Part 75, monitor SO <sub>2</sub> emissions by measuring the flow rate of fuel (oil for EU1, oil and natural gas for EU2) with an inline fuel flow meter and conducting oil sampling and analysis to determine sulfur content, density and gross calorific value (GCV) of fuel oil and the procedures contained in Section 2.3 of Appendix D of 40 CFR Part 75 for determining the sulfur content and GCV of gaseous fuels.
	20) In accordance with Plan Approval No. 4B90219, compliance with Massachusetts Acid Rain Law 310 CMR 7.22 shall be demonstrated through monitoring the quantity of each fuel burned, the sulfur content, the average heating value of each fuel burned or SO <sub>2</sub> emissions with CEMS that meet the requirements of 40 CFR Part 75.
	21) In accordance with 310 CMR 7.14(2) and the Acid Rain Program 40 CFR Part 72, monitor O <sub>2</sub> or carbon dioxide (CO <sub>2</sub> ) concentrations in the flue gas with CEMS. The O <sub>2</sub> or CO <sub>2</sub> CEMS shall meet the requirements of 40 CFR Part 75 in order to convert NO <sub>x</sub> continuous emissions monitoring data to units of the applicable emission standards as specified in Table 3 of this Operating Permit.
	22) In accordance with 310 CMR 7.14(1) and (2), 40 CFR Part 51, Appendix P, and the Acid Rain Program 40 CFR Part 72 and 40 CFR Part 75, a continuous opacity monitoring system (COMS) shall be installed, calibrated, maintained, and operated as a direct compliance monitor. The COMS shall meet Performance Specification 1 of 40 CFR Part 60, Appendix B and perform ongoing QC/QA, including daily zero and span checks, quarterly performance audits and annual zero alignment checks. COMS shall obtain valid data for at least 75% of the hours per day, 75% of the days per month, and 90% of the hours per quarter during which the emission unit is operating.
	23) In accordance with Plan Approval No. 4B94178 and ACOP-SE-06-7003, the opacity of visible emissions from the facility shall be determined in accordance with EPA Test Method 9, as specified in 40 CFR Part 60, Appendix A and the “Cape Cod Canal Power Station Method 9 Observations Site Plan” in the event of a COMS malfunction. This method shall also apply to any detached plumes.
	24) Measure the operating time of each EU and the date and amount of time that any CEMS and/or COMS are inoperative.
	25) In accordance with 310 CMR 7.14(2), monitor any occurrences when visible emissions (opacity and/or smoke exclusive of uncombined water) and emission rates of NO <sub>x</sub> , CO and SO <sub>2</sub> are in excess of the emission limits/standards contained in Table 3 of Operating Permit No. 4V95058.
	26) In accordance with 310 CMR 7.19(13)(d)3., measure for each unit on a daily basis: type fuel(s) burned each day, heat content of each fuel, the total heating value of the fuel consumed for each day, the actual emission rate (for emission units demonstrating compliance with CEMS) and the allowable emission rate.
	27) In accordance with Appendix D of 40 CFR Part 75 and 310 CMR 7.00: Appendix C(9)(b)2., monitor sulfur content of each new shipment of fuel oil received. Compliance with Plan Approval No. 4B95123 for sulfur content of the fuel oil can be demonstrated through fuel analysis. The analysis of sulfur content of the fuel shall be in accordance with the applicable American Society for Testing Materials (ASTM) test methods or any other method approved by the Department and EPA. Fuel sulfur information may be provided by fuel suppliers. The sulfur content of natural gas shall be determined annually as specified in 40 CFR Part 75 Appendix D.

**Table 4**

EU#	MONITORING/TESTING REQUIREMENTS
EU1, EU2	<p>28) In accordance with 310 CMR 7.19(13)(d)5. and 310 CMR 7.19(13)(d)6, monitor nitrogen content of each new shipment of No. 6 Fuel Oil received, by one of the following methods:</p> <p>a) Monitor through obtaining a certification from the fuel oil supplier that includes the following information:</p> <ul style="list-style-type: none"> <li>i. the name of the fuel supplier;</li> <li>ii. the nitrogen content* of each oil shipment; and</li> <li>iii. the location where the sample was drawn for analysis to determine the nitrogen content of the fuel oil, specifically including whether the fuel oil was sampled as delivered to the Permittee’s facility or whether the sample was drawn from fuel oil in storage at the fuel oil supplier’s or fuel oil refiner’s facility or another location.</li> </ul> <p>b) sample and analyze the fuel oil for nitrogen content * immediately after the fuel oil tank is filled and before any fuel oil is combusted.</p> <p>* The shipment certification or analysis of nitrogen content of the fuel oil shall be in accordance with the applicable American Society for Testing materials (ASTM) test methods or any other method approved by the Department and EPA.</p>
	<p>29) In accordance with 310 CMR 7.04(5), operate and maintain automatic viscosity controllers of a type approved by the Department to control the viscosity of No. 6 Fuel Oil to the burners.</p>
	<p>30) In accordance with 310 CMR 7.70(8)(a)1.a. and Final Approval No. 4B08040, install all monitoring systems necessary to monitor CO<sub>2</sub> mass emissions in accordance with 40 CFR part 75, except equation G-1 in Appendix G shall not be used to determine CO<sub>2</sub> emissions under 310 CMR 7.70(8). <b>(State Only Requirement)</b></p>
	<p>31) In accordance with 310 CMR 7.70(8)(a)2.a. and Final Approval No. 4B08040, each CO<sub>2</sub> budget unit that commenced commercial operation before July 1, 2008, must be in compliance with the requirements of 310 CMR 7.70(8) by January 1, 2009. <b>(State Only Requirement)</b></p>
	<p>32) In accordance with 310 CMR 7.70(8)(h)1. and Final Approval No. 4B08040, submit to the Department or its agent net electrical output. <b>(State Only Requirement)</b></p>
	<p>33) In accordance with 310 CMR 7.70(8)(h)4.a. and Final Approval No. 4B08040, the billing meter shall record the electric output. <b>(State Only Requirement)</b></p>
	<p>34) In accordance with 310 CMR 7.70(8)(h)5.c. and Final Approval No. 4B08040, when a component of output measurement equipment fails to pass an accuracy test, all data shall be replaced by either zero or an output value that is approved as part of the monitoring plan required under 310 CMR 7.70(8)(h)3.until the component passes an accuracy test or is replaced with another piece of equipment that passes the accuracy test. <b>(State Only Requirement)</b></p>
	EU3, EU4
<p>36) In accordance with Plan Approval No. 4B95123, calculate monthly and rolling twelve month emissions of NO<sub>x</sub>, SO<sub>2</sub>, PM, CO and VOC in accordance with the equations contained in Special Condition Section 5.(k).</p>	
<p>37) In accordance with 40 CFR Part 60.44c, demonstrate compliance with fuel oil sulfur content by testing as described at §§ 60.44c(g) and 60.46c(d)(2), or by receiving certification from fuel supplier as described at 60.48c(f).</p>	
<p>38) In accordance with 40 CFR Part 60.45c(a)(8), Method 9 of Appendix A of Part 60 shall be used for determining the opacity of stack emissions.</p>	

**Table 4**

EU#	MONITORING/TESTING REQUIREMENTS
EU3, EU4	39) In accordance with Plan Approval No. 4B95123, the ability of the facility to maintain approved emission rates shall be demonstrated to the Department in the future if deemed necessary. Any future compliance test that may be required shall be conducted in accordance with procedures set forth by the appropriate EPA Reference Test Methods and Air Pollution Control Regulations, 310 CMR 7.00, Section 7.13. A written pretest protocol must be submitted to this office for written Department approval at least 30 days prior to an actual test.
EU1, EU2, EU3, EU4	40) In accordance with 310 CMR 7.04(2)(a), the boilers shall be equipped with smoke density sensing instruments and recorders which are properly maintained in accurate operating condition, operate continuously and are equipped with an audible alarm to signal the need for combustion equipment adjustment or repair when the smoke density is equal to or greater than No. 1 of the Chart. Such smoke density equipment shall be available for inspection at reasonable times by a representative of the Department.  41) In accordance with 310 CMR 7.04(4)(a), inspect and maintain fuel utilization facility in accordance with manufacturer’s recommendations and test for efficient operation at least annually.  42) In accordance with 310 CMR 7.00: Appendix C (9)(b)2., compliance with 310 CMR 7.05(1)(a)2. shall be demonstrated by obtaining and maintaining a shipping receipt from the supplier for each shipment of No. 2 Fuel Oil delivered. The shipping receipt must certify that the shipment complies with the American Society for Testing and materials (ASTM) specifications for distillate fuel oil. The Department may require testing of the distillate fuel oil if the shipping receipt does not clearly demonstrate compliance.
EU5	43) In accordance with 4V95058 and 310 CMR 7.00: Appendix C(9)(b)2., monitor Hydrogen usage to determine system losses for reporting on 310 CMR 7.12 annual source registration.
EU6, EU7	44) In accordance with 310 CMR 7.02(8)(i), monitor the hours of operation.  45) In accordance with 310 CMR 7.00: Appendix C (9)(b)2., compliance with 310 CMR 7.02(8)(i) 5. and 310 CMR 7.05(1)(a)3. shall be demonstrated by obtaining and maintaining a shipping receipt from the supplier for each shipment of oil delivered. The shipping receipt must certify that the shipment complies with the American Society for Testing and materials (ASTM) specifications for distillate fuel oil. The Department may require testing of the distillate fuel oil if the shipping receipt does not clearly demonstrate compliance.
EU8	46) In accordance with 310 CMR 7.04(4)(a), inspect and maintain fuel utilization facility in accordance with manufacturer’s recommendations and test for efficient operation at least annually.
EU9	47) In accordance with 310 CMR 7.18(8)(h), upon request of the Department, perform or have performed tests to demonstrate compliance. Testing shall be conducted in accordance with a method approved by the Department and EPA.
Facility-Wide	48) Monitor operations such that information may be compiled for the annual preparation of a Source Registration/Emission Statement Form as required by 310 CMR 7.12.  49) 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 or design approval provisos 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, and c) to be conducted 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 a time as agreed to in the approved test protocol.

**Table 4**

<b>Table 4</b>	
<b>EU#</b>	<b>MONITORING/TESTING REQUIREMENTS</b>
Facility-Wide	<p>50) In accordance with 310 CMR 7.13(2), any person having control of a facility, relative to which the Department determines that stack testing (to ascertain the mass emission rates of air contaminants emitted under various operating conditions) is necessary for the purposes of regulation enforcement or determination of regulation compliance shall cooperate with the Department to provide:</p> <ul style="list-style-type: none"> <li>a) entrance to a location suitable for stack testing,</li> <li>b) sampling ports at locations where representative samples may be obtained,</li> <li>c) staging and ladders to support personnel and equipment for performing the tests,</li> <li>d) a suitable power source at the sampling location for the operation of sampling equipment, and</li> <li>e) such other reasonable facilities as may be requested by the Department.</li> </ul>

**Table 5**

<b>Table 5</b>	
<b>EU#</b>	<b>RECORD KEEPING REQUIREMENTS</b>
EU1	<p>1) In accordance with Plan Approval No. 4B94024, records shall be maintained to verify compliance with the specification used oil fuel usage limit/restriction.</p> <p>2) In accordance with Plan Approval No. 4B94024, records shall be maintained to verify compliance with the applicable regulations, standards and limits contained in Table 3 and Special Condition Section 5.(j) of Operating Permit No. 4V95058 for all fuels including specification used oil fuel.</p> <p>3) In accordance with Plan Approval No.4B07013 and the facility SOMP, maintain daily records of the secondary current (DC milliamps) for each electric field (transformer-rectifier set) on the Unit 1 Electrostatic Precipitator (ESP).</p>
EU2	<p>4) In accordance with Plan Approval No.4B07013 and the facility SOMP, maintain daily records of the primary voltage (AC volts), primary current (AC amps), secondary voltage (DC volts), secondary current (DC milliamps) and spark rate for each electric field (transformer-rectifier set) on the Unit 2 Electrostatic Precipitator (ESP).</p>
EU1, EU2	<p>5) In accordance with Plan Approval No. 4B05014, the Permittee shall establish and maintain on-site for a minimum of five (5) years, up-to-date such that year-to-date information is readily available for Department examination upon request, a record keeping log/system to include:</p> <ul style="list-style-type: none"> <li>a) Compliance records sufficient to demonstrate that emissions from the facility have not exceeded established emission limits. Such records shall include but are not limited to, fuel usage rate, emission test results, monitoring equipment data and reports.</li> <li>b) Maintenance: A record of routine maintenance activities performed on the Unit 1 SCR and Unit 2 SNCR control equipment and monitoring equipment including, at a minimum, the type or a description of the maintenance performed and the date and time the work was completed.</li> <li>c) Malfunctions: A record of all malfunctions on the Unit 1 and Unit 2 emission control and monitoring equipment including, at a minimum: date and time the malfunction occurred; a description of the malfunction and the corrective action taken; the date and time corrective actions were initiated; and the date and time the corrective actions were completed.</li> </ul> <p>6) In accordance with Plan Approval No. 4B05014, the Permittee shall maintain on-site for five (5) years all records of output from all continuous monitors for flue gas emissions and fuel consumption, and shall make these records available to the Department upon request.</p> <p>7) In accordance with Plan Approval No. 4B05014, the Permittee shall maintain Unit 1 and Unit 2 records of the aqueous NH<sub>3</sub> consumption per day, per month and on a 12-month rolling period.</p> <p>8) In accordance with Plan Approval No. 4B97052 maintain NO<sub>x</sub> and CO emission monitoring records as required by 310 CMR 7.19(13) including 310 CMR 7.19(13)(b) and 310 CMR 7.19(13)(d).</p> <p>9) Must comply with all applicable recordkeeping requirements contained in 40 CFR Part 60, 40 CFR Part 72, 40 CFR Part 75, 310 CMR 7.28, 310 CMR 7.29, 310 CMR 7.32 and 310 CMR 7.70.</p> <p>10) In accordance with Approval No. 4B01051 and 310 CMR 7.28(8)(e), information on the Authorized Account Representative (AAR) must be kept current.</p> <p>11) As required by 310 CMR 7.28(12), any person who owns, leases, operates or controls a budget unit must keep all measurements, data, reports and other information required by 310 CMR 7.28 for five years, or any other period consistent with the budget unit's operating permit.</p>

**Table 5**

EU#	RECORD KEEPING REQUIREMENTS
EU1, EU2	12) In accordance with Approval No. 4B01044 and 310 CMR 7.29(7), maintain a record of actual emissions for each regulated pollutant for each of the preceding 12 months. Actual emissions shall be recorded for individual units and as a facility total for all units included in the calculation demonstrating compliance. Actual emissions provided under this section shall be recorded in accordance with 40 CFR Part 75 for SO <sub>2</sub> , CO <sub>2</sub> , and NO <sub>x</sub> , and for Hg, CO, and PM 2.5 at the time regulations applicable to any unit at the facility are promulgated by the Department for those parameters.
	13) In accordance with Approval No. 4B01044 and 310 CMR 7.29(7), maintain a record of actual net electrical output for each of the preceding 12 months, expressed in megawatt-hours. Records of actual net electrical output shall be maintained for individual units and as a facility total for all units included in the calculation demonstrating compliance.
	14) In accordance with Approval No. 4B01044 and 310 CMR 7.29(7), maintain a record of the resulting output-based emission rates for each of the preceding 12 months, and each of the 12 consecutive rolling month time periods, expressed in pounds per megawatt-hour. Output based emission rates shall be provided for individual emission units and as a facility total for all units included in the calculation demonstrating compliance.
	15) In accordance with Plan Approval 4B97052 and 310 CMR 7.19(13), record on a continuous basis emissions of CO in accordance with the requirements of 310 CMR 7.19(13)(b)1. through 12.
	16) In accordance with the requirements of 40 CFR Part 75, record for each hour when the unit is combusting oil: a) Date and hour; b) Hourly average flow rate of oil with the units in which oil flow is recorded; c) Sulfur content of oil sample used to determine SO <sub>2</sub> mass emissions; d) Method of oil sampling; e) Mass of oil combusted each hour; f) SO <sub>2</sub> mass emissions from oil; g) For units using volumetric oil flow meters, density of oil; h) Gross calorific value (heat content) of oil, used to determine heat input; i) Hourly heat input rate from oil according to procedures in appendix F of 40 CFR Part 75; and j) Fuel usage time for combustion of oil during the hour.

**Table 5**

EU#	RECORD KEEPING REQUIREMENTS
EU1, EU2	17) In accordance with the requirements of 40 CFR Part 75, record for each hour when the unit is combusting gaseous fuel: a) Date and hour; b) Hourly heat input rate from gaseous fuel according to procedures in appendix F of 40 CFR Part 75 (MMBtu/hr, rounded to the nearest tenth); c) Sulfur content or SO <sub>2</sub> emission rate in accordance with the appropriate procedure from appendix D of 40 CFR Part 75; d) Hourly flow rate of gaseous fuel; e) Gross calorific value of gaseous fuel, used to determine heat input; f) Heat input rate from gaseous fuel (MMBtu/hr, rounded to the nearest tenth); g) SO <sub>2</sub> mass emissions due to the combustion of gaseous fuels; and h) Fuel usage time for combustion of gaseous fuel during the hour.
	18) In accordance with Plan Approval No. 4B90219, compliance with the Massachusetts Acid Rain Law 310 CMR 7.22 shall be demonstrated by recording the quantity of each fuel burned, heating value or heat input of each fuel burned and SO <sub>2</sub> emissions. SO <sub>2</sub> emissions and heat input of each fuel burned shall be recorded in accordance with the requirements of 40 CFR Part 75.
	19) Record on a continuous basis concentrations of O <sub>2</sub> or CO <sub>2</sub> in the flue gas in accordance with the requirements of 40 CFR Part 75.
	20) Record, on a continuous basis, opacity in accordance with 310 CMR 7.14(2), 40 CFR Part 51, Appendix P, 40 CFR Part 75 and 40 CFR Part 60, Appendix B.
	21) Maintain records of opacity determined in accordance with EPA Test Method 9, as specified in 40 CFR Part 60, Appendix A in the event of COMS malfunction. This method shall also apply to any detached plumes.
	22) Record operating time of each EU and the date and amount of time that any CEMS or COMS are inoperative.
	23) Record any occurrences when opacity and/or smoke and emission rates of NO <sub>x</sub> , CO and SO <sub>2</sub> are in excess of the emission limits/standards contained in Table 3 of Operating Permit No. 4V95058.
	24) In accordance with 310 CMR 7.19(13)(d)1., maintain a record of all measurements, performance evaluations, calibration checks, and maintenance or adjustments for each continuous emission monitor.
	25) In accordance with 310 CMR 7.19(13)(d)3., record for each unit on a daily basis the type(s) of fuel burned, heat content of each fuel, total heating value of the fuel consumed, actual emission rate (for emission units demonstrating compliance with CEMS), and allowable emission rate for CO and NO <sub>x</sub> .
	26) In accordance with 310 CMR 7.19(13)(d)7., maintain records of the nitrogen content of each new shipment of No. 6 Fuel Oil received. Such records shall include fuel analysis results and/or fuel oil supplier certifications that include the name of the fuel oil supplier and the location where the sample was drawn for analysis to determine the nitrogen content.
27) In accordance with 310 CMR 7.19(13)(d)8., maintain all records required by 310 CMR 7.19(13)(d) in a permanently bound log book or any other form acceptable to the Department including computer retained and generated data.	

**Table 5**

EU#	RECORD KEEPING REQUIREMENTS
EU1, EU2	28) In accordance with 310 CMR 7.00: Appendix C(9)(b)2., maintain SO <sub>2</sub> CEMS records or fuel analysis results used to demonstrate compliance with fuel sulfur content requirements.
	29) Maintain records required by 40 CFR Part 75, subpart F.
	30) In accordance with 310 CMR 7.00: Appendix C(10)(b), maintain on-site, at all times, a copy of the Standard Operating and Maintenance Procedure (SOMP).
	31) In accordance with Plan Approval No. 4B08021 and 40 CFR Part 72, unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority: <ul style="list-style-type: none"> <li>a) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR Part 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;</li> <li>b) All emissions monitoring information, in accordance with 40 CFR Part 75;</li> <li>c) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,</li> <li>d) Copies of all documents used to complete the Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.</li> </ul>
	32) In accordance with 310 CMR 7.70(8)(e)1. and Final Approval No. 4B08040, comply with all recordkeeping and reporting requirements in 310 CMR 7.70(8)(e), with all applicable record keeping and reporting requirements under 40 CFR 75.73 and with the requirements of 310 CMR 7.70(2)(a)5. <b>(State Only Requirement)</b>
	33) In accordance with 310 CMR 7.70(8)(h)6.a. and Final Approval No. 4B08040, comply with all output recordkeeping and reporting requirements in 310 CMR 7.70(8)(h) and with the requirements of 310 CMR 7.70(1)(e)5. and (2)(a)5. <b>(State Only Requirement)</b>
	34) In accordance with 310 CMR 7.70(8)(h)6.b. and Final Approval No. 4B08040, retain data used to monitor, determine, or calculate net generation for ten years from the date reported. <b>(State Only Requirement)</b>
EU3, EU4	35) In accordance with Plan Approval No. 4B95123, maintain an accurate recordkeeping system to track No. 2 fuel oil burned, natural gas burned, and pollutants emitted, for the purpose of satisfying the federally enforceable limits contained in Table 3 of Operating Permit No. 4V95058. Records shall be kept to verify that the limits contained in Operating Permit No. 4V95058 are not exceeded.
	36) Records on site of the fuel purchase receipts in order to demonstrate compliance with fuel sulfur content requirements as provided in 310 CMR 7.05(1)(a)2.
	37) Maintain records of opacity determined in accordance with EPA Test Method 9, as specified in 40 CFR Part 60, Appendix A. This method shall also apply to any detached plumes.
EU1, EU2, EU3, EU4	38) In accordance with 310 CMR 7.04(2)(a), maintain records of Smoke Density Indicator Recording Charts or COMS records. For EU1 and EU2 these records are required by 40 CFR Part 75 and 40 CFR Part 60, Appendix B.
	39) In accordance with 310 CMR 7.04(4)(a), the results of the inspection, maintenance, testing, and the data upon which it was performed on the fuel utilization facility shall be recorded and posted conspicuously on or near the facility.



**Table 5**

<b>Table 5</b>	
<b>EU#</b>	<b>RECORD KEEPING REQUIREMENTS</b>
EU5	40) In accordance with 4V95058 and 310 CMR 7.00: Appendix C(10)(b), maintain a record of Hydrogen usage to determine system losses for reporting on annual source registration.
EU6, EU7	41) In accordance with 310 CMR 7.02(8)(i)3., maintain the following records: a) Information on equipment type, make and model, and maximum power input/output; and b) A monthly log of hours of operation, gallons of fuel used, fuel type and heating value, and a monthly calculation of the total hours operated and gallons of fuel used in the previous 12 months shall be kept on site; and c) Purchase orders, invoices, and other documents to support information in the monthly log. 42) Maintain records on site of the fuel purchase receipts and analysis in order to demonstrate compliance with fuel sulfur content requirements as provided in 7.02(8)(i)5., 310 CMR 7.05(1)(a)3. and Table 3 of Operating Permit No. 4V95058.
EU8	43) In accordance with 310 CMR 7.04(4)(a), the results of the inspection, maintenance, testing, and the data upon which it was performed on the fuel utilization facility shall be recorded and posted conspicuously on or near the facility.
EU9	44) In accordance with 310 CMR 7.18(8)(g) and 310 CMR 7.03(6), Prepare and maintain records sufficient to demonstrate continuous compliance as stated in 310 CMR 7.18(8)(f) and with the monthly solvent usage restriction in 310 CMR 7.03(8). Records shall include, but are not limited to: identity, quantity, formulation and density of solvent(s) used and waste solvent(s) generated.
Facility-Wide	45) Maintain copies of Source Registration/Emission Statement Forms submitted annually to the Department as required per 310 CMR 7.12. 46) In accordance with Plan Approval No. 4B05014, maintain a complaint log concerning emissions, odor, dust and noise from the facility. The Permittee shall make available to the general public a telephone number that will receive and record complaints 24 hours per day, 7 days per week. The complaint log shall be maintained for the most recent five (5) year period and shall be made available to the Department upon request. The Permittee shall take all reasonable actions to respond to complaints. 47) In accordance with 310 CMR 7.00 Appendix C(10)(b), maintain records required by Operating Permit No. 4V95058 on site for five (5) years from the date of generation and shall be readily available to the Department and EPA personnel.

**Table 5**

<b>Table 5</b>	
<b>EU#</b>	<b>RECORD KEEPING REQUIREMENTS</b>
Facility-Wide	<p>48) In accordance with 310 CMR 7.00: Appendix C(10)(b)., maintain records of all monitoring data and supporting information on site for a period of at least five (5) years from the date of the monitoring sample, measurement, report or initial operating permit application. Supporting information includes at a minimum, all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by the operating permit, and any other information required to interpret the monitoring data. Records required to be maintained shall include, where applicable:</p> <ul style="list-style-type: none"> <li>a) The date, place as defined in the permit, and the time of sampling or measurements;</li> <li>b) The date(s) analyses were performed;</li> <li>c) The company or entity that performed the analyses;</li> <li>d) The analytical techniques or methods used;</li> <li>e) The results of such analyses; and</li> <li>f) The operating conditions as existing at the time of sampling or measurement.</li> </ul> <p>These records shall be maintained for the test results required by 310 CMR 7.13(1).</p>

**Table 6**

EU#	REPORTING REQUIREMENTS
EU1	1) In accordance with Plan Approval No. 4B94024, report the quantity of Specification Used Oil Fuel burned on a twelve month rolling period on subsequent source registrations/emission statements as required by 310 CMR 7.12.
EU1, EU2	<p>2) In accordance with 310 CMR 7.14(2) and 310 CMR 7.19(13)(d)2., submit CEM Excess Emission Reports for each calendar quarter by the thirtieth (30<sup>th</sup>) day of April, July, October, and January covering the previous calendar periods of January through March, April through June, July through September, and October through December, respectively. Such reports shall contain opacity and/or smoke and emission rates of NO<sub>x</sub>, CO and SO<sub>2</sub> in excess of the emission limits/standards contained in Table 3 of Operating Permit No. 4V95058.</p> <p>Start-up periods shall be reported in accordance with “The Department Response to Comments on Proposed Amendments to 310 CMR 7.00: RACT for NO<sub>x</sub>”, dated June 1994. Start-up periods are not included in the calendar day NO<sub>x</sub> and CO emission rate compliance averaging time as long as the mass emission rate, in pounds of NO<sub>x</sub> and/or CO per hour, from the emission unit does not exceed the mass emission rate that would occur at the maximum firing rate. “Start-up” is defined in Section 5(e) and (f) Special Terms and Conditions. In the event none of the above items have occurred such information shall be stated in the report.</p> <p>3) Comply with all applicable reporting requirements contained in 40 CFR Part 60, 40 CFR Part 72, 40 CFR Part 75, 310 CMR 7. 28, 310 CMR 7.29 and 310 CMR 7.32.</p> <p>4) In accordance with the requirements of 310 CMR 7.28(13), NO<sub>x</sub> emissions data must be reported pursuant to the requirements of 310 CMR 7.28(11)(a)(6), (a)(7) and (b).</p> <p>5) As required by Approval No. 4B01051 and 310 CMR 7.28(13)(a)(1), for units commencing operation prior to May 1, 2002, the AAR must submit quarterly reports for each calendar quarter beginning with: the earlier of the calendar quarter that includes the date of initial certification or, if the certification tests are not completed by May 1, 2002, the partial calendar quarter from May 1, 2002 through June 30, 2002. Data shall be recorded and reported from the earlier of the date and hour corresponding to the date and hour of certification or the first hour on May 1, 2002.</p> <p>6) In accordance with Approval No. 4B01051 and 310 CMR 7.28(13)(b), the AAR for each budget unit using CEMS must submit to the Administrator all emissions and operating information for each calendar quarter of each year in accordance with the standards specified in 40 CFR Part 75 Subpart H and 40 CFR Part 75.64.</p> <p>7) In accordance with Approval No. 4B01051 and 310 CMR 7.28(13)(c)(1), for units subject to an Acid Rain Emissions Limitation, quarterly reports shall include all of the data and information required in 40 CFR Part 75 Subpart H for each NO<sub>x</sub> Budget unit (or group of units using a common stack) as well as information required in 40 CFR Part 75 Subpart G.</p> <p>8) In accordance with Approval No. 4B01051, NO<sub>x</sub> emissions data should be reported directly to EPA’s National Computer Center mainframe computer in a method acceptable to EPA. The deadline to submit data to EPA is 30 days after the end of each calendar quarter.</p> <p>9) In accordance with Approval No. 4B01051 and 310 CMR 7.28(13)(d), should a budget unit be permanently shut down, the Department will grant an exemption from the requirements of 310 CMR 7.28 upon request from the budget unit’s AAR, and provided the shutdown is part of an approved emission control plan or approved under 310 CMR 7.00, Appendix B. The request must include an identification of the budget unit being shut down, and the date of shutdown. Department approval of the request for shutdown exemption will be sent to the AAR, and the Administrator, and may contain conditions as deemed necessary by the Department.</p>

**Table 6**

EU#	REPORTING REQUIREMENTS
EU1, EU2	10) In accordance with Approval No. 4B01051 and 310 CMR 7.28(13)(e), by October 31 of each year, any person who owns, leases, operates or controls a new or existing budget unit must report to the Department each facility’s metered net electric and useful steam output for that year’s control period. Net electric output must be reported in megawatt-hours, and steam output in MMBtu. If data for steam output are not available, the person may report heat input providing useful steam output as a surrogate for steam output. (See Section 5. Special Condition (c)4.)
	11) In accordance with 310 CMR 7.28(15), for each control period, the AAR for the budget unit shall submit by November 30 of each year, an annual compliance certification report to the Department and the NATS Administrator. The compliance certification shall contain, at a minimum, the items listed in 310 CMR 7.28(15)(c)1 through 8.
	12) Notification of QA testing is required for Relative Accuracy Test Audits (RATAs) and Appendix E/LME (Low Mass Emission) unit tests. Notification must be made at least 21days prior to the scheduled test date to the EPA as required by 40 CFR Part 75.61, to the MassDEP Headquarters, Bureau of Waste Prevention, Division of Planning and Evaluation, and to the DEP Regional office, Attn: BWP Permit Chief. If tests must be rescheduled, 24 hours notice must be given, as specified in 40 CFR Part 75.61(a)(5).
	13) A previously approved RATA protocol may be referenced at the time of test notification provided that the referenced protocol was completed in accordance with current 40 CFR Part 75 procedures, addresses all previous DEP protocol comments to the satisfaction of the DEP, and none of the information has changed. If a revised protocol must be submitted, it must be submitted at least 21 days prior to the scheduled test date.
	14) A hard copy of the QA RATA or Appendix E/LME test results must be submitted to both the MassDEP Headquarters and DEP Regional offices within 45 days of completion of tests. The electronic results must be submitted in the quarterly electronic data report (EDR).
	15) Results from QA daily Calibrations, quarterly Linearity checks and 40 CFR Part 75 Appendix D Fuel Flowmeter tests must be reported electronically in the EDR submittal for the quarter in which the testing occurs.
	16) In accordance with Approval No. 4B01044, by January 30 of the year following the earliest applicable compliance date for the affected facility under 310 CMR 7.29(6)(c), and January 30 of each calendar year thereafter, the company representative responsible for compliance shall submit a compliance report to the Department demonstrating the facility’s compliance status with the emission standards contained in 310 CMR 7.29(5)(a) and in an approved Emission Control Plan. The report shall demonstrate the facility’s compliance status with applicable monthly emission rates for each month of the previous calendar year, and each of the twelve previous consecutive 12-month periods. The compliance report shall include all statements listed in 310 CMR 7.29(7)(b)4. <small>(see Note 1)</small>
	17) In accordance with Approval No. 4B01044, the Department may verify the facility’s compliance status by whatever means necessary, including but not limited to requiring the affected facility to submit information on actual electrical output of company generating units provided by the New England Independent System Operator (ISO), or any successor thereto.
18) In accordance with 310 CMR 7.19(13)(d)9., submit compliance records within ten (10) days of written request by the Department or EPA.	

**Table 6**

EU#	REPORTING REQUIREMENTS
EU1, EU2	<p>19) In accordance with Final Operating Permit No. 4V95058, Plan Approval No. 4B90219 and Massachusetts Acid Rain Law 310 CMR 7.22, submit quarterly reports by January 30, April 30, July 30 and October 30 of each year providing the following information: the quantity of each fuel burned (gallons, tons, or cubic feet), the sulfur content (pounds per million Btu and percent by weight), and the average heating value (Btu per gallon, ton or cubic feet) of each fuel burned. Each report will summarize monthly data for the previous quarter (e.g. the January report will summarize October, November and December activity) and the calendar year to date.</p> <p>As used herein, calendar quarter shall mean the period of time from 12:00 a.m. on the first calendar day of each quarter to 12:00 a.m. on the first calendar day of the following quarter.</p>
	20) Report as required by 40 CFR Part 75, subpart G.
	21) In accordance with Approval No. 4B08021, the designated representative shall submit the reports and compliance certifications required under the Acid Rain program, including those under 40 CFR Part 72 subpart I and 40 CFR Part 75.
	22) In accordance with Plan Approval No. 4B05014, the Permittee shall notify the Department by telephone or fax no later than three (3) business days after the occurrence of any upsets or malfunctions to the proposed facility equipment, air pollution control equipment, or monitoring equipment which results in a excess emission to the ambient air and/or a condition of air pollution.
	23) In accordance with Plan Approval No. 4B05014, the Permittee shall submit NH <sub>3</sub> CEMS Excess Emission Report for each calendar quarter by the thirtieth (30 <sup>th</sup> ) day of April, July, October, and January covering the previous calendar periods of January through March, April through June, July through September, and October through December, respectively. Report submittal shall begin the first quarter during which the NH <sub>3</sub> CEMS is certified on each unit.
	24) In accordance with Plan Approval No. 4B05014, the Permittee shall submit an annual NH <sub>3</sub> CEMS Emission Report by January 30 <sup>th</sup> that defines the highest hourly average NH <sub>3</sub> emissions (ppm <sub>vd</sub> corrected to 3% O <sub>2</sub> ) per calendar day and the average calendar day NH <sub>3</sub> emissions (ppm <sub>vd</sub> corrected to 3% O <sub>2</sub> ) for Unit 1 [and Unit 2 when equipped with an NH <sub>3</sub> CEMS per the requirements of Section IX(3) of 4B05014].

**Table 6**

EU#	REPORTING REQUIREMENTS
EU1, EU2	<p>25) Report opacity excess emissions on a calendar quarter basis within 30 days from the end of the calendar quarter. As a minimum, the calendar quarter excess emission reports shall provide the following:</p> <ul style="list-style-type: none"> <li>a) Opacity identified by the COMS as greater than <b>fifteen (15)</b> percent based on a six (6) minute block average. The magnitude in actual opacity of each six-minute block average greater than fifteen (15) percent opacity must be identified and reported as an excess emission.</li> <li>b) Opacity identified by the COMS as greater than <b>forty (40)</b> percent for any one (1) minute block average. The magnitude in actual opacity of each one-minute block average greater than forty (40) percent opacity must be identified and reported as an excess emission.</li> <li>c) In accordance with 40 CFR Part 51, Appendix P, Section 4.2, one-minute average values are to be obtained by integration over each one-minute period. The term “identified” as used in 25)a. and 25)b. above, means that the date and time of commencement and the date and time of completion of each incident of excess emissions, and the duration of each incident must be reported.</li> <li>d) The date and time identifying each period and its duration during which the COMS system was inoperative, except for zero and span checks, and the nature of system repairs or adjustment must be reported.</li> <li>e) When no excess emissions have occurred and the COMS have not been inoperative, repaired, or adjusted, such information shall be included in the report.</li> <li>f) The aggregate operating time per calendar quarter as defined by when any fuel is being fired at any rate into the boiler for the reporting period.</li> <li>g) The aggregate time that the 15 percent opacity requirement, as defined in 25)a. above, is exceeded.</li> <li>h) The aggregate time that the 40 percent opacity requirement, as defined in 25)b. above, is exceeded.</li> <li>i) Percentage of operating time, as defined in 25)f. above, that the 15 percent opacity requirement, as defined in 25)a. above, is exceeded.</li> <li>j) Percentage of operating time, as defined in 25)f. above, that the 40 percent opacity requirement, as defined in 25)b. above, is exceeded.</li> <li>k) Percentage of operating time, as defined by 25)f. above, when operating with excess opacity emissions, as defined in 25)a. and 25)b. above. Do not double count the operating time out of compliance when both the 15 percent and 40 percent opacity requirement are simultaneously being exceeded.</li> </ul> <p>26) In accordance with 310 CMR 7.70(2)(a)5. and Final Approval No. 4B08040, each submission under the CO<sub>2</sub> Budget Trading Program shall be submitted, signed, and certified by the CO<sub>2</sub> authorized account representative. <b>(State Only Requirement)</b></p> <p>27) In accordance with 310 CMR 7.70(4)(a) and Final Approval No. 4B08040, for each control period in which a CO<sub>2</sub> budget source is subject to the CO<sub>2</sub> requirements of 310 CMR 7.70(1)(e)3., submit to the Department by the March 1 following the relevant control period, a compliance certification report to <b>Patricio Silva at the MassDEP Boston office</b>. The compliance certification shall contain, at a minimum, the items listed in 310 CMR 7.70(4)(a)2. and 3. <b>(State Only Requirement)</b></p> <p>28) In accordance with 310 CMR 7.70(6)(c) and Final Approval No. 4B08040, following the establishment of a CO<sub>2</sub> Allowance Tracking System account, all submissions to the Department or its agent pertaining to the account, shall be made only by the CO<sub>2</sub> authorized account representative for the account. <b>(State Only Requirement)</b></p>

**Table 6**

EU#	REPORTING REQUIREMENTS
EU1, EU2	29) In accordance with 310 CMR 7.70(8)(d) and Final Approval No. 4B08040, the CO <sub>2</sub> authorized account representative shall submit written notifications to the Department and the Administrator in accordance with 40 CFR 75.61. <b>(State Only Requirement)</b>
	30) In accordance with 310 CMR 7.70(8)(e)1. and Final Approval No. 4B08040, comply with all recordkeeping and reporting requirements in 310 CMR 7.70(8)(e), the applicable record keeping and reporting requirements under 40 CFR 75.73 and with the requirements of 310 CMR 7.70(2)(a)5. <b>(State Only Requirement)</b>
	31) In accordance with 310 CMR 7.70(8)(e)4.a.i. and Final Approval No. 4B08040, report the CO <sub>2</sub> mass emissions data for the CO <sub>2</sub> budget unit that commenced commercial operation before July 1, 2008, in an electronic format prescribed by the Administrator, unless otherwise prescribed by the Department, for each calendar quarter beginning with the calendar quarter covering January 1, 2009 through March 31, 2009. <b>(State Only Requirement)</b>
	32) In accordance with 310 CMR 7.70(8)(e)4.c. and Final Approval No. 4B08040, submit to the Department or its agent a compliance certification in support of each quarterly report. <b>(State Only Requirement)</b>
	33) In accordance with 310 CMR 7.70(8)(h)6.a. and Final Approval No. 4B08040, comply with all output recordkeeping and reporting requirements in 310 CMR 7.70(8)(h) and with the requirements of 310 CMR 7.70(1)(e)5. and (2)(a)5. <b>(State Only Requirement)</b>
	34) In accordance with 310 CMR 7.70(8)(h)6.c. and Final Approval No. 4B08040, submit annual output reports in a spreadsheet both electronically and in hardcopy by March 1 for the immediately preceding calendar year to <b>Patricio Silva at the MassDEP Boston office</b> or the Department's agent. <b>(State Only Requirement)</b>
EU3, EU4	27) In accordance with Plan Approval No. 4B95123, a written pretest protocol must be submitted to this office for written Department approval at least 30 days prior to an actual test.
	28) In accordance with Plan Approval No. 4B95123, a test results report shall be submitted to this office within 30 days after the completion of any required compliance testing.
Facility-Wide	29) Submit a Source Registration/Emission Statement Form to the Department on an annual basis in accordance with 310 CMR 7.12(2)(a)1.
	30) In accordance with 310 CMR 7.00: <i>Appendix C (10)(c)</i> , the Permittee shall report a Semi-Annual summary of all monitoring data and related supporting information to the Department at least every six months as specified in Section 10 of this Operating Permit.
	31) In accordance with 310 CMR 7.00: <i>Appendix C (10)(c)</i> , the Permittee shall submit an annual compliance report to the Department and U.S. EPA – New England Region, as specified in Section 10 of this Operating Permit.
	32) In accordance with 310 CMR 7.00: <i>Appendix C (10)(f)</i> , the Permittee shall promptly report to the Department all instances of deviations from permit requirements. This report shall include the deviation itself, including those attributable to upset conditions as defined in the permit, the probable cause of the deviation, and any corrective actions or preventative measures taken. (See General Condition 25 Permit Deviation)
	33) In accordance with 310 CMR 7.00: <i>Appendix C (10)(h)</i> , all required reports must be certified by a responsible official consistent with 310 CMR 7.00: <i>Appendix C (5)(c)</i>

**Table 6**

EU#	REPORTING REQUIREMENTS
Facility-Wide	<p>34) All notifications and reporting <sup>(*)</sup> required by this Operating Permit shall be sent to:</p> <p style="text-align: center;">Department of Environmental Protection            Bureau of Waste Prevention            Southeast Regional Office            20 Riverside Drive            Lakeville, MA 02347</p> <p style="text-align: center;">ATTN: Chief, Permit Section</p> <p style="text-align: center;">Telephone: (508) 946-2770            Fax: (508) 947-6557</p> <p><b>(*) The annual Source Registration/Emission Statement shall be submitted to the DEP Office specified in the instructions.</b></p>

**Table 6 Notes:**

1. If the ISO final settlement of actual electrical output is not available, the facility shall submit a compliance report based on provisional values of actual electrical output. Upon receiving certified ISO values of actual electrical output for all provisional months within the calendar year, the facility shall submit a revised compliance report within 30 days thereafter.



**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:

<b>Table 7</b>	
<b>REGULATION</b>	<b>DESCRIPTION/REASON</b>
310 CMR 7.16: Reduction of Single Occupant Commuter Vehicle Use	< 250 employees
310 CMR 7.27: NOx Allowance Program	Superseded by 310 CMR 7.28: NOx Allowance Trading Program and 310 CMR 7.32 Massachusetts Clean Air Interstate Rule (MassCAIR)
42 U.S.C. 7401, §112(r) and 40 CFR Part 68 – Accidental Release Prevention Program	Regulated substances stored < threshold quantities
42 U.S.C. 7401, §601	Facility states no Class I or Class II substances used

## **5. SPECIAL TERMS AND CONDITIONS**

The permittee is subject to the following special provisions that are not contained in Table 3, 4, 5, and 6:

- (a) In accordance with Operating Permit Application No. 4B95058, EU1, EU3 and EU4 shall continue to emit through a single flue having the following parameters:

Stack Height	498 feet
Flue Exit Diameter	216 inches
Flue Material	Stainless Steel
Stack Material	Concrete

- (b) In accordance with Operating Permit Application No. 4B95058, EU2 shall continue to emit through a single flue having the following parameters:

Stack Height	498 feet
Flue Exit Diameter	216 inches
Flue Material	Carbon Steel
Stack Material	Concrete

**The flue of EU1, EU3 and EU4 and the flue of EU2 share a single, common stack.**

- (c) State NO<sub>x</sub> Allowance Trading Program, 310 CMR 7.28

1. EU1 and EU2 are subject to the requirements of the NO<sub>x</sub> Allowance Trading Program 310 CMR 7.28. The Department issued Emission Control Plan (ECP) Approval No. 4B01051 for this facility on April 24, 2002.
2. NO<sub>x</sub> Allowance use and transfer must comply with 310 CMR 7.28(10).
3. In accordance with 310 CMR 7.28(14), each year by November 30, for each budget unit, the total number of banked or current year allowances in its compliance or overdraft account must equal or exceed the NO<sub>x</sub> emissions from the budget unit in the current control period.
4. Each budget unit shall meter electric output in accordance with the approved monitoring methodology contained in Table II of the ECP Approval No. 4B01051.

Electric Output Meters:

- a. In the case where billing meters are used to determine output, no QA/QC activities beyond those already performed are required. To qualify as a billing meter, the measurement device must be used to measure electric or thermal output for commercial billing under a contract. The facility selling the electric or thermal output must have different owners from the owners of the party purchasing the electric or thermal output. Any electric or thermal output values that the facility reports must be the same as the values used in billing for the output.
- b. In the case where non-billing meters are used to determine output, if the facility decides to adopt a system approach to accuracy then a system accuracy of 10.0% must be achieved. If testing an output measurement system shows that the output readings are not accurate to 10.0% or less, then the measurement equipment must be retested or replaced, and meet that requirement. If the facility decides to adopt a component approach to accuracy, then a component accuracy of 3.0% must be achieved. If testing

a piece of output measurement equipment shows that the output readings are not accurate to 3.0% or less of the full scale, then the measurement equipment must be retested or replaced, and meet that requirement. When a non-billing system fails to meet the 10% or 3% requirement, data should be considered invalid, prospectively, for purposes of determining allocations. Data remain invalid until the output measurement equipment passes an accuracy test or is replaced with another piece of equipment that passes the accuracy test. The invalid data must be omitted and either zero or an output value that is likely to be lower than a measured value must be reported.

- c. Output measurement equipment must be tested for accuracy or recalibrated at least once every two years, in accordance with applicable consensus or NIST traceable standards, unless a standard allows for less frequent calibrations or accuracy tests.

(d) Federal Acid Rain Program, Phase II Acid Rain Permit

1. EU1 and EU2 are subject to the requirements of Phase II of the Federal Acid Rain Program as defined by EPA in 40 CFR Part 72. Pursuant to 40 CFR Part 72.71, 40 CFR Part 72.73, and 310 CMR 7.00, Appendix C(3)(n), the Department is the permitting authority for Phase II Acid Rain Permits. The Department issued the initial Phase II Acid Rain Permit No. 4B97106 to The Permittee on December 30, 1997, and renewed said permit on February 28, 2003. Phase II Acid Rain Permit Renewal No. 4B08021 is being noticed for issuance concurrent with this Operating Permit. The Department is incorporating the requirements of the renewal Phase II Acid Rain approval into this Operating Permit. The Phase II Acid Rain Permit will renew with the Operating Permit.
2. Within 60 days of the end of each calendar year, the facility shall hold in its SO<sub>2</sub> allowance account at least one allowance for each ton of SO<sub>2</sub> emitted during the previous year. An allowance is a limited authorization to emit SO<sub>2</sub> in accordance with the Acid Rain Program.
3. If the facility has excess emissions in any calendar year, it shall submit a proposed offset plan as required under 40 CFR Part 77. In addition, the Permittee shall pay any penalties specified in 40 CFR Part 77 and comply with the terms of an approved offset plan.
4. In accordance with 40 CFR Part 73, the Permittee's designated representative may buy, sell, trade, or transfer allowances between EU accounts at any time, except between 60 days of the end of the calendar year and the completion of the annual SO<sub>2</sub> allowance reconciliation for the preceding year(s).
5. The yearly SO<sub>2</sub> allowance allocations as identified in 40 CFR Part 73.10, Table 2 and Phase II Acid Rain Permit No. 4B08021 are identified below:

EU#	YEAR	
	2008 - 2009	2010 - Beyond
EU1	13,235	12,327
EU2	17,999	18,031

6. Phase II Acid Rain Approval No. 4B08021 is incorporated by reference into Operating Permit No. 4V95058.

- (e) **Cold Start Up Conditions:** Cold Start Up, in accordance with Plan Approval No. 4B97052, is defined as any start up transition that occurs more than 72 hours after any previous shutdown. The Permittee will have a Cold Start Up allowance of 20 hours after the introduction of fuel to Emission Unit No. 1 and/or Emission Unit No. 2.
- (f) **Warm Start Up Conditions:** Warm Start Up, in accordance with Plan Approval No. 4B97052, is defined as any start up transition that occurs less than 72 hours after any previous shutdown. The Permittee will have a Warm Start Up allowance of 12 hours after the introduction of fuel to Emission Unit No. 1 and/or Emission Unit No. 2.
- (g) **Shutdown Conditions:** Emission Unit No. 1 and No. 2 - Shutdown operations, in accordance with Plan Approval No. 4B97052, would exclude the one hour (60) minutes prior to a boiler trip (fuel valve closure) from the calculation of the 24 hour average of NO<sub>x</sub> and CO.
- (h) In accordance with Approval No. 4B01044, the Department may verify compliance of 310 CMR 7.29(5) by whatever means necessary, including but not limited to: inspection of a unit's operating records; requiring the facility to submit information on actual electrical output of company generating units provided to that person by the New England Independent System Operator, or any successor thereto; testing emission monitoring devices; and, requiring the facility to conduct emissions testing under the supervision of the Department (**State Only**).
- (i) Should any nuisance condition(s) occur as a result of the operation of EU1, EU2, EU3, EU4, EU5, EU6, EU7, EU8 and EU9, then appropriate steps shall immediately be taken to abate said nuisance condition(s). (State Only Applicable per 310 CMR 7.01(1): General Regulations to Prevent Air Pollution)
- (j) In accordance with Plan Approval No. 4B94024, EU1 is approved to burn Specification Used Oil fuel provided that:
1. the Permittee adheres to all emission limits for the EU as identified in Table 3; and
  2. the Permittee shall not burn more than 50,000 gallons of Specification Used Oil Fuel based on a rolling twelve month period.
  3. a minimum combustion efficiency of 99.5% shall be achieved and substantiated.
  4. the Permittee is in possession of the appropriate and active Recycling Permit(s) obtained from the Department (**State Only**); and
  5. the Permittee abides by all conditions stated in such Recycling Permit(s), plan approvals, Operating Permit, and regulations concerning the handling, recycling and burning of Used Oil Fuel (**State Only**).
- (k) In accordance with Plan Approval No. 4B95123, Tons per Month and Tons per Year emissions of NO<sub>x</sub>, SO<sub>2</sub>, PM, CO and VOC from EU3 and EU4 shall be calculated with the following equations:

For EU3 and EU4:

$$\text{NO}_x = [(\text{QM}_{\text{gas}}) (0.05 \text{ lb/MMBtu}) + (\text{QM}_{\text{oil}}) (0.10 \text{ lb/MMBtu})] \div 2000 \text{ lbs} \leq 6.40 \text{ TPM NO}_x$$

$$\text{SO}_2 = [(\text{QM}_{\text{gas}}) (0.006 \text{ lb/MMBtu}) + (\text{QM}_{\text{oil}}) (0.051 \text{ lb/MMBtu})] \div 2000 \text{ lbs} \leq 3.27 \text{ TPM SO}_2$$

$$\text{PM} = [(\text{QM}_{\text{gas}}) (0.005 \text{ lb/MMBtu}) + (\text{QM}_{\text{oil}}) (0.05 \text{ lb/MMBtu})] \div 2000 \text{ lbs} \leq 3.20 \text{ TPM PM}$$

$$\text{CO} = [(\text{QM}_{\text{gas}}) (0.074 \text{ lb/MMBtu}) + (\text{QM}_{\text{oil}}) (0.058 \text{ lb/MMBtu})] \div 2000 \text{ lbs} \leq 4.90 \text{ TPM CO}$$

$$\text{VOC} = [(\text{QM}_{\text{gas}}) (0.03 \text{ lb/MMBtu}) + (\text{QM}_{\text{oil}}) (0.02 \text{ lb/MMBtu})] \div 2000 \text{ lbs} \leq 1.98 \text{ TPM VOC}$$

$$\text{NO}_x = [(\text{Q}_{12\text{gas}}) (0.05 \text{ lb/MMBtu}) + (\text{Q}_{12\text{oil}}) (0.10 \text{ lb/MMBtu})] \div 2000 \text{ lbs} \leq 29.3 \text{ TPY NO}_x$$

$$SO_2 = [(Q12_{gas}) (0.006 \text{ lb/MMBtu}) + (Q12_{oil}) (0.051 \text{ lb/MMBtu})] \div 2000 \text{ lbs} \leq 14.9 \text{ TPY } SO_2$$

$$PM = [(Q12_{gas}) (0.005 \text{ lb/MMBtu}) + (Q12_{oil}) (0.05 \text{ lb/MMBtu})] \div 2000 \text{ lbs} \leq 14.7 \text{ TPY } PM$$

$$CO = [(Q12_{gas}) (0.074 \text{ lb/MMBtu}) + (Q12_{oil}) (0.058 \text{ lb/MMBtu})] \div 2000 \text{ lbs} \leq 21.7 \text{ TPY } CO$$

$$VOC = [(Q12_{gas}) (0.03 \text{ lb/MMBtu}) + (Q12_{oil}) (0.02 \text{ lb/MMBtu})] \div 2000 \text{ lbs} \leq 8.8 \text{ TPY } VOC$$

Where:

QM = MMBtu of gas or oil fired in EU3 and/or EU4 over the previous month.

Q12 = MMBtu of gas or oil fired in EU3 and/or EU4 over the previous 12 month period.

TPM = tons per month

TPY = tons per year

- (l) In accordance with Plan Approvals 4B05014 and 4B07013 (Standard Operating and Maintenance Procedures), the Unit 2 SNCR system is an optional NO<sub>x</sub> control device and will be used as deemed necessary for site NO<sub>x</sub> compliance.
- (m) In accordance with Plan Approval 4B07013, the Permittee shall operate Unit 1 and Unit 2 and their associated emission control equipment/techniques as detailed in the facility's Standard Operating and Maintenance Procedures, revised February 1, 2008.
- (n) Massachusetts Clean Air Interstate Rule (MassCAIR), 310 CMR 7.32
  - 1. The owner/operator of EU1 and EU2 is subject to the Massachusetts Clean Air Interstate Rule (MassCAIR), 310 CMR 7.32 and shall comply with all applicable requirements therein. The facility has submitted a BWP AQ 29 Clean Air Interstate Rule Permit application, under transmittal No. W154653, pursuant to 310 CMR 7.32(3) and shall submit a minor modification application (BWP AQ 10) upon approval from MassDEP to incorporate requirements.
- (o) In accordance with 310 CMR 7.02(3)(n)2., no person shall cause, suffer, allow, or permit the removal, alteration or shall otherwise render inoperable any air pollution control equipment or equipment used to monitor emissions that is required by 310 CMR 7.00, without specific written authority of the Department or in conformance with the specific exemptions listed in 310 CMR 7.02(2). An exception to 310 CMR 7.02(3)(n)2. is allowed for reasonable maintenance periods or unexpected and unavoidable failure of the equipment provided that the Department is notified, in writing, within 24 hours of the occurrence of such failure.

## **6. ALTERNATIVE OPERATING SCENARIOS**

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

## **7. EMISSIONS TRADING**

### (a) Intra-facility emissions trading

The Permittee is currently authorized to engage in emissions trading under the following federal and state regulatory programs:

- 40 CFR Parts 72, 73, and 74 – SO<sub>2</sub> Allowances;
- 310 CMR 7.28 – NO<sub>x</sub> Allowance Trading Program;
- 310 CMR 7.29 – Emissions Standards for Power Plants (**State Only**);
- 310 CMR 7.32 – Massachusetts Clean Air Interstate Rule (MassCAIR);
- 310 CMR 7.70 – Massachusetts CO<sub>2</sub> Budget Trading Program (**State Only**);
- 310 CMR 7.00, Appendix A – Emission Offsets and NonAttainment Review and;
- 310 CMR 7.00, Appendix B – Emission Banking, Trading and Averaging.

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 emissions trading

The Permittee is currently authorized to engage in emissions trading under the following federal and state regulatory programs:

- 40 CFR Parts 72, 73, and 74 – SO<sub>2</sub> Allowances;
- 310 CMR 7.28 – NO<sub>x</sub> Allowance Trading Program;
- 310 CMR 7.29 – Emissions Standards for Power Plants (**State Only**);
- 310 CMR 7.32 – Massachusetts Clean Air Interstate Rule (MassCAIR);
- 310 CMR 7.70 – Massachusetts CO<sub>2</sub> Budget Trading Program (**State Only**);
- 310 CMR 7.00, Appendix A – Emission Offsets and NonAttainment Review and;
- 310 CMR 7.00, Appendix B – Emission Banking, Trading and Averaging.

All increases in emissions due to emissions trading, must be authorized under the applicable requirements of 310 CMR 7.00: Appendix B (the "Emissions Trading Program") and 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 "Operating Permit Reporting Kit" contains instructions and the Annual Compliance Report and Certification and the Semi-Annual Monitoring Summary Report and Certification. The "Operating Permit Reporting Kit" is available to the Permittee via the Department's web site, <http://www.mass.gov/dep/air/approvals/aqforms.htm#op>.

#### (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 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, 7.04(9), 7.05(8), 7.09 (odor), 7.10 (noise), 7.18(1)(b), 7.21, 7.22, 7.70 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. 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<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
- (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 Bureau of Waste Site Cleanup/Emergency Response immediate notification to the appropriate parties should be made as required by law.

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<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>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.

## **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. Any reporting requirements listed in Table 6. of this Operating Permit shall supercede 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:

- 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, 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 available to the Permittee via the Department's web site,

<http://www.mass.gov/dep/air/approvals/aqforms.htm#op>.

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 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)(h) and (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.

## **28. LEGEND OF ABBREVIATED TERMS IN OPERATING PERMIT**

\*Not all abbreviations are present in every Operating Permit

AQCR	Air Quality Control Region
BACT	Best Available Control Technology
Btu	British thermal unit
Btu/kWh	British Thermal Unit per kilowatt hour
BWP	Bureau of Waste Prevention
CAIR	Clean Air Interstate Rule
CEMS	Continuous Emissions Monitoring System
CFR	Code of Federal Regulations
CMR	Code of Massachusetts Regulations
CO	Carbon Monoxide
CO <sub>2</sub>	Carbon Dioxide
COMS	Continuous Opacity Monitoring System
DAHS	Data Acquisition and Handling System
dB(A)	decibels (A-weighted sound level)
DEP	Massachusetts Department of Environmental Protection
° C	degrees Celsius
° F	degrees Fahrenheit
ECP	Emission Control Plan
EPA	U.S. Environmental Protection Agency
ESP	Electrostatic Precipitator
EU	Emission Unit
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
GCV	gross calorific value
Gal/min	gallons per minute
Gal/Month	gallons per month
HAP	Hazardous Air Pollutant
Hg	Mercury
HHV	Higher Heating Value
HP	Horsepower
ISO	Represent 59°F, 60% Relative Humidity, 29.92 Inches Mercury At Sea Level
kW	kilowatt
kPa	kilopascal
L.L.C.	Limited Liability Corporation
lbs/hr	pounds per hour
lbs/MMBtu	pounds per million Btu
lbs/MWh	pounds per Megawatt-hour
MassDEP	Massachusetts Department of Environmental Protection
M.G.L.	Massachusetts General Laws
MMBtu	million British thermal units
MMBtu/hr	million British thermal units per hour
mm Hg	millimeters of mercury
mph	miles per hour
MRP	month rolling period (consecutive months)
MW	Megawatt
MW <sub>e</sub>	Megawatt electrical
MWh	Megawatt-hour (net electrical output)

NH <sub>3</sub>	Ammonia
NESHAP	National Emission Standards for Hazardous Air Pollutants
NSPS	New Source Performance Standards
No.	Number
NO <sub>2</sub>	Nitrogen dioxide
NO <sub>x</sub>	Oxides of Nitrogen
O <sub>2</sub>	Oxygen
Pb	Lead
PM	Particulate Matter
PM <sub>10</sub>	Particulate Matter less than or equal to 10 microns in aerodynamic diameter
PM <sub>2.5</sub>	Particulate Matter less than or equal to 2.5 microns in aerodynamic diameter
ppm	parts per million
ppmvd	parts per million by volume, dry basis
PLT ID	Plant Identification
PTE	Potential To Emit
PSI	pounds per square inch
QA	Quality Assurance
QC	Quality Control
RACT	Reasonable Available Control Technology
RATA	Relative Accuracy Test Audit
SCR	Selective Catalytic Reduction
SNCR	Selective Non-Catalytic Reduction
SSEIS	Stationary Source Emission Inventory System
S	Sulfur
SO <sub>2</sub>	Sulfur Dioxide
SOMP	Standard Operating and Maintenance Procedures
TPY	Tons per twelve (12) month rolling period
VOC	Volatile Organic Compound
%	Percent
<	Less Than
>	Greater Than
≤	Less Than or Equal To
≥	Greater Than or Equal To
#/hr	Pounds Per Hour
10 <sup>6</sup> BTU/hr	1,000,000 BTU Per Hour

## **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.