



Commonwealth of Massachusetts  
Executive Office of Energy & Environmental Affairs

## Department of Environmental Protection

Southeast Regional Office • 20 Riverside Drive, Lakeville MA 02347 • 508-946-2700

DEVAL L. PATRICK  
Governor

MAEVE VALLELY BARTLETT  
Secretary

DAVID W. CASH  
Commissioner

### FINAL AIR QUALITY OPERATING PERMIT

(Minor Modification SE-13-027 dated 09-17-2014)

Issued by the Massachusetts Department of Environmental Protection ("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"]:**

Dartmouth Power Associates, L.P.  
One Energy Road  
Dartmouth, Massachusetts 02747

**FACILITY LOCATION:**

Dartmouth Power Associates, L.P.  
One Energy Road  
Dartmouth, Massachusetts 02747

**NATURE OF BUSINESS:**

Electric Power Generation

**RESPONSIBLE OFFICIAL:**

Name: Mr. Wes Greig  
Title: Plant Manager

**INFORMATION RELIED UPON:**

Application No.: 4V08060, SE-13-039, SE-13-027  
Transmittal No.: X224954, X257981, X256577

**FACILITY IDENTIFYING NUMBERS:**

AQ ID: 120 0025  
FMF FAC. NO. 205295  
FMF R.O. NO. 194309  
ORIS Code: 052026

**STANDARD INDUSTRIAL CODE (SIC):**

4911

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

221112

**FACILITY CONTACT PERSON:**

Name: Mr. Robert DeRosier  
Title: O&M Manager  
Phone: (508) 995-0269, Extension 2227  
Email: rderosier@sapphire-power.com

**This operating permit shall expire on** November 8, 2016.

For the Department of Environmental Protection, Bureau of Waste Prevention

**Minor Modification SE-13-027 dated 09-17-2014**

Permit Chief, Bureau of Waste Prevention

**(Final Operating Permit signed 11/08/11)**

Date

## TABLE OF CONTENTS

<b>Section</b>	<b>Special Conditions for Operating Permit</b>	<b>Page No.</b>
1	Permitted Activities	3
2	Emission Unit Identification - <b>Table 1</b>	5
3	Identification of Exempt Activities - <b>Table 2</b>	6
4	Applicable Requirements	6
	A. Emission Limits and Restrictions - <b>Table 3</b>	6
	B. Compliance Demonstration	16
	- Monitoring/Testing Requirements - <b>Table 4</b>	16
	- Record Keeping Requirements - <b>Table 5</b>	22
	- Reporting Requirements - <b>Table 6</b>	27
	C. General Applicable Requirements	32
	D. Requirements Not Currently Applicable - <b>Table 7</b>	32
5	Special Terms and Conditions - <b>Table 8</b>	33
6	Alternative Operating Scenarios	39
7	Emissions Trading	39
8	Compliance Schedule	40
<b>Section</b>	<b>General Conditions for Operating Permit</b>	<b>Page No.</b>
9	Fees	41
10	Compliance Certification	41
11	Noncompliance	42
12	Permit Shield	42
13	Enforcement	43
14	Permit Term	43
15	Permit Renewal	43
16	Reopening for Cause	44
17	Duty to Provide Information	44
18	Duty to Supplement	44
19	Transfer of Ownership or Operation	44
20	Property Rights	44
21	Inspection and Entry	45
22	Permit Availability	45
23	Severability Clause	45
24	Emergency Conditions	45
25	Permit Deviation	46
26	Operational Flexibility	47
27	Modifications	47
28	Legend to Abbreviated Terms in Operating Permit	48
<b>Section</b>	<b>Appeal Conditions for Operating Permit</b>	<b>50</b>

## **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**

Dartmouth Power Associates, located in North Dartmouth, Massachusetts is a merchant power production facility situated on 5 acres of a 40-acre (industrially zoned) parcel of land and produces wholesale electric power for purchase by area utilities. The Dartmouth Power Associates facility is currently a major source of one or more criteria pollutants as defined by 310 CMR 7.00: Appendix C, and was issued initial Final Air Quality Operating Permit No. 4V95059 on April 29, 2004. The Dartmouth Power Associates facility is currently an area source of Hazardous Air Pollutants (HAP) as listed pursuant to 42 U.S.C. 7401, The Clean Air Act (CAA), §112(b).

**Emission Unit 1 (EU 1)** is a combustion turbine/combined cycle unit consisting of a General Electric Frame 6 combustion turbine rated at 546 MMBtu/hr (HHV) heat rate input which exhausts into a Nooter Erikson heat recovery steam generator (HRSG) with a John Zink natural gas fired duct burner rated at 110 MMBtu/hr (HHV) heat rate input which is **Emission Unit 2 (EU 2)**. The combustion turbine/duct burner exhaust is controlled by a Selective Catalytic Reduction (SCR) NO<sub>x</sub> control system and then discharged to a 168 foot high stack equipped with a continuous emission monitoring system (CEMS) for O<sub>2</sub>, NO<sub>x</sub>, CO, NH<sub>3</sub> and opacity.

**Emission Unit 3 (EU 3)** is a Detroit Diesel Model 12V-711T-starter diesel engine [compression ignition (CI) Reciprocating Internal Combustion Engine (RICE)] rated at 620 HP (462 kW). This diesel engine is used for a brief period to roll the combustion turbine at start-up. EU3 is subject to Federal requirements for an “existing black start stationary CI RICE located at an area source” at 40 CFR Part 63, Subpart ZZZZ.

**Emission Unit 4 (EU 4)** is a 24,000-gallon per minute cooling tower manufactured by Ecodyne equipped with drift eliminators to minimize particulate matter emissions.

**Emission Unit 5 (EU 5)** is a General Electric LM 2500 PE, simple cycle combustion turbine rated at a maximum heat input of 267.1 MMBtu/hr firing natural gas and 261.7 MMBtu/hr firing Ultra Low Sulfur distillate (ULSD) and a maximum generator output of 24.7 MW. The simple cycle combustion turbine exhaust is controlled by a SCR NO<sub>x</sub> control system and an oxidation catalyst for control of CO and VOC. The exhaust discharges through an 80 foot high, 10 foot in diameter steel stack and is equipped with a continuous emissions monitoring system (CEMS) for O<sub>2</sub>, NO<sub>x</sub>, CO, NH<sub>3</sub> and opacity.

**Emission Unit 6 (EU 6)** is a Cleaver Brooks Model CB 200-100, No. 2 fuel oil fired, auxiliary boiler with a maximum heat input rating of 4.18 MMBtu/hr. This boiler has applicable requirements at 310 CMR 7.04(4)(a) and 310 CMR 7.05 in addition to Federal requirements at 40 CFR Part 63, Subpart JJJJJJ. This

emission unit was installed in March 2011 and is considered a “new” affected source with respect to Subpart JJJJJ.

**Emission Unit 7 (EU 7)** consists of 2 small (< 3 MMBtu/hr heat rate input), No. 2 fuel oil fired boilers. These boilers are subject to Federal requirements at 40 CFR Part 63, Subpart JJJJJ. This emission unit was installed prior to June 2010 and is considered an “existing” affected source with respect to Subpart JJJJJ.

**Emission Unit 8 (EU 8)** is a diesel engine [compression ignition (CI) Reciprocating Internal Combustion Engine (RICE)] powered fire pump rated at 208 HP (155 kW). This diesel engine is on site for emergency fire control. EU 8 is subject to Federal requirements for an “existing emergency stationary CI RICE located at an area source” at 40 CFR Part 63, Subpart ZZZZ.

The Dartmouth Power Associates facility includes EU 1, EU 2, EU 3, EU 4, EU 5, EU 6, EU 7, EU 8 and ancillary equipment to support the operation of the power plant including:

- Combustion turbine electric generator
- Condensing steam turbine electric generator
- 424,000 gallon fuel oil storage tank
- Various storage tanks
- Boiler make-up water/steam chemical treatment /cooling water treatment

Emission Unit 1, Emission Unit 2 and Emission Unit 5 are subject to the requirements of the Massachusetts Clean Air Interstate Rule under 310 CMR 7.32. The permittee has submitted a BWP AQ 29 CAIR permit application (transmittal no. W153900) pursuant to 310 CMR 7.32(3). Upon approval of the submitted CAIR permit application, the permittee shall submit a BWP AQ 10 Minor Modification application to incorporate the requirements into this Operating Permit.

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 which 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; and Table 7 which 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>
EU 1	<u>Combustion Turbine:</u> GE Frame 6 Manufacturer # PG6541B	546 MMBtu/hr	Water Injection and Selective Catalytic Reduction (SCR)
EU 2	<u>Duct Burner:</u> John Zink Model # 906230	110 MMBtu/hr	Selective Catalytic Reduction (SCR)
EU 3	<u>Starter Diesel:</u> Detroit Diesel Manufacturer # 12-V-711-T	4.70 MMBtu/hr	4 degrees ignition timing retard
EU 4	<u>Cooling Tower:</u> Ecodyne Manufacturer # 3CFE-607408L-2806-10	Design flow rate: 24,000 Gal/min	Munters D15 Drift Eliminators
EU 5	<u>Combustion Turbine:</u> GE LM 2500 PE	267.1 MMBtu/hr	Water Injection, Selective Catalytic Reduction (SCR) and Oxidation Catalyst
EU 6	<u>Auxiliary Boiler</u> Cleaver Brooks CB 200-100	4.18 MMbtu/hr	None
EU 7	<u>2 Small Boilers</u> Peerless SC/SCT-08	0.63 MMbtu/hr (each)	None
EU 8	<u>Fire Pump Diesel:</u> Cummins 6BTA5.9-F1	1.5 MMBtu/hr	None

### 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>
The list of current exempt activities is contained in the Operating Permit application and shall be updated by the Permittee to reflect changes at the facility over the permit term. An up-to-date copy of the exempt activities list shall be kept on-site at the facility and a copy shall be submitted to the MassDEP's Regional Office. Emissions from these activities shall be reported on the annual emissions statement pursuant to 310 CMR 7.12.	310 CMR 7.00, Appendix C (5)(h)

### 4. APPLICABLE REQUIREMENTS

#### A. EMISSION LIMITS AND RESTRICTIONS

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

<b>Table 3</b>					
<b>EU #</b>	<b>Fuel or Raw Material</b>	<b>Pollutant</b>	<b>Emission Limit/Standard</b>	<b>Restrictions</b>	<b>Applicable Regulation and/or Approval No.</b>
EU 1 EU 2 (combined) <small>(Note 1)</small> <small>(Note 2)</small>	Natural Gas	NO <sub>x</sub>	18.3 lbs/hr 9.0 ppmvd @ 15% O <sub>2</sub>	N/A	4B90045
	Distillate Oil		39.5 lbs/hr 19.0 ppmvd @ 15% O <sub>2</sub>		
	Natural Gas and/or Distillate Oil		96 TPY <small>(Note 3)</small>		
	Natural Gas	SO <sub>2</sub>	3.4 lbs/hr 1.2 ppmvd @ 15% O <sub>2</sub>	N/A	4B90045
	Distillate Oil		0.82 lbs/hr		4B07004
	Natural Gas and/or Distillate Oil		17.2 TPY <small>(Note 3)</small>		40 CFR 72 4B06004
	See Special Terms and Conditions D.				

**Table 3**

EU #	Fuel or Raw Material	Pollutant	Emission Limit/Standard	Restrictions	Applicable Regulation and/or Approval No.
EU 1 EU 2 (combined) (Note 1) (Note 2)	Natural Gas	CO	18.8 lbs/hr 19.0 ppmvd @ 15% O <sub>2</sub>	N/A	4B90045 4B06041
	Distillate Oil		18.8 lbs/hr 19.0 ppmvd @ 15% O <sub>2</sub>		
	Natural Gas and/or Distillate Oil		82 TPY (Note 3)		
	Natural Gas	PM (Note 6)	2.5 lbs/hr 0.007 lbs/MMBtu	N/A	4B90045
	Distillate Oil		39.0 lbs/hr 0.09 lbs/MMBtu		
	Natural Gas and/or Distillate Oil		38 TPY (Note 3)		
	Natural Gas	UHC (Note 17)	10.0 lbs/hr 16.0 ppmv @ 15% O <sub>2</sub>	N/A	4B90045
	Distillate Oil		10.0 lbs/hr 16.0 ppmv @ 15% O <sub>2</sub>		
	Natural Gas and/or Distillate Oil		44 TPY (Note 3)		
	Natural Gas and/or Distillate Oil	NH <sub>3</sub>	11.6 lbs/hr 15 ppmvd @ 15% O <sub>2</sub>	N/A	4B90045 4B06024
			0.022 lbs/MMBtu		
			51 TPY (Note 3)		
	Natural Gas and/or Distillate Oil	CO <sub>2</sub>	Hold CO <sub>2</sub> allowances available for compliance (Note 14) (Note 15)		310 CMR 7.70(1)(e)3.a. and 4B08030 (State Only)
			CO <sub>2</sub> Allowance Transfers		
Natural Gas and/or Distillate Oil	Smoke	< No. 1 of Chart (Note 7), except ≥ No.1 to < No. 2 of Chart for ≤ 6 minutes (aggregate or consecutive) during any one hour, no time to exceed No. 2 of the Chart		310 CMR 7.06(1)(a)	
	Opacity (Note 11)	≤ 10 % at all times		4B90045	

**Table 3**

EU #	Fuel or Raw Material	Pollutant	Emission Limit/Standard	Restrictions	Applicable Regulation and/or Approval No.
EU 1 (Note 1) (Note 2)	Natural Gas	NO <sub>x</sub>	0.033 lbs/MMBtu	N/A	4B90045 40 CFR Part 60 - Subpart GG
	Distillate Oil		0.077 lbs/MMBtu		4B90045
	Natural Gas	SO <sub>2</sub>	0.006 lbs/MMBtu	N/A	4B90045
	Distillate Oil		0.0015 lbs/MMBtu		4B07004
	Natural Gas	CO	0.02 lbs/MMBtu	N/A	4B90045
	Distillate Oil		0.02 lbs/MMBtu		
	Natural Gas	UHC (Note 17)	0.01lbs/MMBtu	N/A	4B90045
	Distillate Oil		0.01lbs/MMBtu		
	Natural Gas	S in Fuel	≤ 2 grains per 100 scf	N/A	40 CFR Part 60 - Subpart GG
	Distillate Oil		≤ 0.0015% by weight (Note 4)		4B07004
	All	Not to exceed 718,000 MMBtu/12 MRP		4B07004	
EU 2 (Note 1) (Note 2)	Natural Gas	NO <sub>x</sub>	0.02 lbs/MMBtu	N/A	4B90045 40 CFR Part 60 - Subpart Db
		CO	0.08 lbs/MMBtu	N/A	4B90045
		SO <sub>2</sub>	0.006 lbs/MMBtu		
		UHC (Note 17)	0.05 lbs/MMBtu		
EU 3	Distillate Oil	NO <sub>x</sub> (Note 8)	14.6 lbs/hr 3.1 lbs/MMBtu 2.2 TPY (Note 3)	≤ 300 hours per 12 MRP	4B92028 4B94192
		SO <sub>2</sub>	0.99 lbs/hr 0.21 lbs/MMBtu 0.15 TPY (Note 3)		



**Table 3**

EU #	Fuel or Raw Material	Pollutant	Emission Limit/Standard	Restrictions	Applicable Regulation and/or Approval No.
EU 3	Distillate Oil	CO	3.8 lbs/hr 0.81 lbs/MMBtu 0.57 TPY <small>(Note 3)</small>	$\leq$ 300 hours per 12 MRP	4B92028 4B94192
		PM <small>(Note 6)</small>	0.47 lbs/hr 0.10 lbs/MMBtu 0.07 TPY <small>(Note 3)</small>		
		VOC	0.47 lbs/hr 0.10 lbs/MMBtu 0.07 TPY <small>(Note 3)</small>		
		Smoke	< No. 1 of Chart <small>(Note 7)</small> , except $\geq$ No.1 to < No. 2 of Chart for $\leq$ 6 minutes (aggregate or consecutive) during any one hour, no time to exceed No. 2 of the Chart		310 CMR 7.06(1)(a)
		Opacity <small>(Note 12)</small>	$\leq$ 20 percent, except 20 to $\leq$ 40 percent for $\leq$ 2 minutes (aggregate or consecutive) during any one hour, at no time to exceed 40 percent		310 CMR 7.06(1)(b)
		S in Fuel	$\leq$ 0.2% by weight	N/A	4B92028 4B94192
		HAP	<p><u>§ 63.6603 and Table 2d</u>            a. Change oil and filter every 500 hours of operation or annually, whichever comes first; <small>(Note 18)</small>            b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and            c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.</p> <p>As required in § 63.6605, at all times operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.</p> <p><u>§ 63.6625(e) and Table 6</u>            i. Operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or            ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.</p>		40 CFR Part 63, Subpart <i>ZZZZ</i>  Compliance date: May 3, 2013

<b>Table 3</b>							
EU #	Fuel or Raw Material	Pollutant	Emission Limit/Standard	Restrictions	Applicable Regulation and/or Approval No.		
EU 3	Distillate Oil	HAP	<u>§ 63.6625(h) and Table 2d.</u> Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup shall apply.		40 CFR Part 63, Subpart <i>ZZZZ</i>  Compliance date: May 3, 2013		
			Limit operation of engine in accordance with § 63.6640(f)(1)(i) through (iii).				
EU 1 EU 2 EU 3 (combined)	Natural Gas and/or Distillate Oil	NO <sub>x</sub>	96.0 TPY	N/A	4B92028 4B94192 4B07004		
		CO	82.0 TPY				
		VOC	44.0 TPY				
		SO <sub>2</sub>	17.2 TPY				
		PM <sup>(Note 6)</sup>	38.0 TPY				
EU 4	Cooling water, Treatment chemicals	PM	Drift < 0.005 % of circulation water flow	N/A	4B90045 4V95059		
			<u>Total Dissolved Solids (TDS)</u> ≤ 1600 ppm by weight (consecutive 12-month average)			4V08060 4M08061	
			4.2 TPY (Note 13)			N/A	4B90045 4V08060 4M08061
		Opacity (Note 12)	≤ 20 percent, except 20 to ≤ 40 percent for ≤ 2 minutes (aggregate or consecutive) during any one hour, at no time to exceed 40 percent		310 CMR 7.06(1)(b)		
EU 5 <sup>(Note 5)</sup>	Natural Gas	NO <sub>x</sub>	2.5 lbs/hr 0.0092 lbs/MMBtu 2.5 ppmvd @ 15% O <sub>2</sub>	N/A	4B07004		
	ULSD		5.1 lbs/hr 0.0194 lbs/MMBtu 5.0 ppmvd @ 15% O <sub>2</sub>				

**Table 3**

EU #	Fuel or Raw Material	Pollutant	Emission Limit/Standard	Restrictions	Applicable Regulation and/or Approval No.	
EU 5 <sup>(Note 5)</sup>	Natural Gas and/or ULSD	NO <sub>x</sub>	6.3 TPY	N/A	4B07004	
			N/A		40 CFR Part 60, Subpart GG	
	Natural Gas	CO	2.9 lbs/hr 0.0112 lbs/MMBtu 5.0 ppmvd @ 15% O <sub>2</sub>	N/A	4B07004	
			ULSD			3.1 lbs/hr 0.012 lbs/MMBtu 5.0 ppmvd @ 15% O <sub>2</sub>
			Natural Gas and/or ULSD			3.9 TPY
	Natural Gas	SO <sub>2</sub>	0.6 lbs/hr 0.0023 lbs/MMBtu	N/A	4B07004	
			ULSD			0.4 lbs/hr 0.0015 lbs/MMBtu
			Natural Gas and/or ULSD			0.8 TPY
						N/A
			See Special Terms and Conditions D.			40 CFR Part 60, Subpart GG
	40 CFR Part 72.7					
	Natural Gas	S in fuel	≤ 0.8 grains per 100 scf	4B07004		
			ULSD		≤ 0.0015% by weight	
	Natural Gas	PM, PM <sub>10</sub> , PM <sub>2.5</sub> <sup>(Note 10)</sup>	2.67 lbs/hr 0.010 lbs/MMBtu	N/A	4B07004	
	ULSD	PM, PM <sub>10</sub> , PM <sub>2.5</sub> <sup>(Note 10)</sup>	6.54 lbs/hr 0.025 lbs/MMBtu	N/A		
Natural Gas and/or ULSD	8.2 TPY					
Natural Gas	VOC	0.7 lbs/hr 0.0026 lbs/MMBtu 2.0 ppmvd @ 15% O <sub>2</sub>	N/A	4B07004		

**Table 3**

EU #	Fuel or Raw Material	Pollutant	Emission Limit/Standard	Restrictions	Applicable Regulation and/or Approval No.
EU 5 <sup>(Note 5)</sup>	ULSD	VOC	0.7 lbs/hr 0.0027 lbs/MMBtu 2.0 ppmvd @ 15% O <sub>2</sub>	N/A	4B07004
	Natural Gas and/or ULSD		0.9 TPY		
	Natural Gas	NH <sub>3</sub>	1.8 lbs/hr 0.0068 lbs/MMBtu 5.0 ppmvd @ 15% O <sub>2</sub>	N/A	
	ULSD		1.9 lbs/hr 0.0072 lbs/MMBtu 5.0 ppmvd @ 15% O <sub>2</sub>		
	Natural Gas and/or ULSD		2.3 TPY		
	Natural Gas	Opacity <sup>(Note 11)</sup>	< 5%	N/A	
	ULSD		< 10%		
	Natural Gas and/or ULSD	Smoke	< No. 1 of Chart <sup>(Note 7)</sup> , except ≥ No.1 to < No. 2 of Chart for ≤ 6 minutes (aggregate or consecutive) during any one hour, no time to exceed No. 2 of the Chart	310 CMR 7.06(1)(a)	
	All	Fuel use is restricted to ≤ 667,750 MMBtu Heat input per consecutive 12-month period	4B07004		
EU 1, EU 2, EU 5	Natural Gas and/or Distillate Oil	SO <sub>2</sub>	1.2 lbs/MMBtu <sup>(Note 9)</sup>	N/A	310 CMR 7.22(1)
		NO <sub>x</sub>	As of the allowance deadline for a control period, the owners and operators of each CAIR NO <sub>x</sub> Ozone Season source and each CAIR NO <sub>x</sub> Ozone Season unit at the source shall hold, in the source's compliance account, CAIR NO <sub>x</sub> Ozone Season allowances available for compliance deductions for the control period under 310 CMR 7.32(6)(e)1. in an amount not less than the tons of total nitrogen oxides emissions for the control period from all CAIR NO <sub>x</sub> Ozone Season units at the source, as determined in accordance with 310 CMR 7.32(8).		310 CMR 7.32

<b>Table 3</b>					
<b>EU #</b>	<b>Fuel or Raw Material</b>	<b>Pollutant</b>	<b>Emission Limit/Standard</b>	<b>Restrictions</b>	<b>Applicable Regulation and/or Approval No.</b>
EU 1, EU 2, EU 3, EU 5 (combined)	Natural Gas and/or Distillate Oil	NO <sub>x</sub>	102.3 TPY	N/A	4B07004
		CO	85.9 TPY		
		SO <sub>2</sub>	18.0 TPY		
		PM, PM <sub>10</sub> , PM <sub>2.5</sub> (Note 10)	46.2 TPY		
		VOC	44.9 TPY		
		NH <sub>3</sub>	53.3 TPY		
EU 6	Distillate Oil	PM	0.10 lb/MMBtu	N/A	310 CMR 7.02(8)(h) Table 6
		SO <sub>2</sub>	S in fuel ≤ 0.3% by weight	N/A	310 CMR 7.05(1)(a)2.
		HAP	As required in § 63.11205, at all times operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.		40 CFR Part 63, Subpart JJJJJ
	As required in § 63.11201 and Table 2 to Subpart JJJJJ, conduct tune-up of boiler biennially as specified in § 63.11223(b)(1) through (7)				
EU 7	Distillate Oil	HAP	As required in § 63.11205, at all times operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.		40 CFR Part 63, Subpart JJJJJ  Compliance date: March 21, 2012
			As required in § 63.11201 and Table 2 to Subpart JJJJJ, conduct tune-up of boiler biennially as specified in § 63.11223(b)(1) through (7)		

**Table 3**

EU #	Fuel or Raw Material	Pollutant	Emission Limit/Standard	Restrictions	Applicable Regulation and/or Approval No.
EU 8	ULSD	HAP	<u>§ 63.6603 and Table 2d-4.</u> a. Change oil and filter every 500 hours of operation or annually, whichever comes first; (Note 18) b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.		40 CFR Part 63, Subpart <i>ZZZZ</i>  Compliance date: May 3, 2013
			As required in § 63.6605, at all times operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.		
			<u>§ 63.6625(e) and Table 6-9.</u> i. Operate and maintain the stationary RICE according to the manufacturer’s emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.		
			<u>§ 63.6625(h) and Table 2d.</u> Minimize the engine’s time spent at idle during startup and minimize the engine’s startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup shall apply.		
EU6, EU7, EU8	All Fuels	Smoke	< No. 1 of Chart (Note 7), except ≥ No.1 to < No. 2 of Chart for ≤ 6 minutes (aggregate or consecutive) during any one hour, no time to exceed No. 2 of the Chart		310 CMR 7.06(1)(a)
		Opacity (Note 12)	≤ 20 percent, except 20 to ≤ 40 percent for ≤ 2 minutes (aggregate or consecutive) during any one hour, at no time to exceed 40 percent		310 CMR 7.06(1)(b)
Facility wide	All	Greenhouse Gas (GHG) Emissions (Note 16)	N/A	N/A	310 CMR 7.71 (State Only Requirement)

**Table 3 Notes:**

1. EU 1 and EU 2 emission limits are based on a one (1) hour block average.
2. EU 1 and EU 2 emission limits during Startup and Shutdown are specified in Section 5: Special Terms and Conditions, Paragraph B - Table 8b.
3. EU 1 and EU 2 TPY restrictions include EU 3 TPY maximum allowable emissions. EU 3 may operate a maximum of 300 hours per 12-month rolling period and shall not exceed the emission restrictions identified in Table 3 above.
4. See Section 5. Special Terms and Conditions, Paragraph E.
5. EU 5 emission limits are 1-hour block averages and do not apply during start-up/shutdown and equipment cleaning. Start-ups/shutdowns shall not last longer than 30 minutes. Emission rates are for burning natural gas or ULSD in the combustion turbine and based on 100% load for ambient air temperature range of -10 to 100 degrees Fahrenheit. These constitute worst-case emissions.
6. Particulate Matter (PM) as measured according to the applicable procedures specified in 40 CFR 60 Appendix A, Method 5.
7. Chart means the Ringleman 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 MassDEP.
8. EU 3 has ignition timing retarded by 4 degrees for the purpose of reducing NO<sub>x</sub> emissions.
9. Based on an annual calendar average per unit.
10. EU 5 PM<sub>10</sub> emission limits include condensable fraction, PM<sub>2.5</sub> and PM emission limits do not include condensable fraction.
11. Emission limits are based on 6-minute block averages utilizing 40 CFR Part 60, Appendix A, Method 9. Certified COMS data, based on and reported as three-minute averages, shall be used in lieu of Method 9 for compliance demonstration purposes.
12. Opacity shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9.
13. EU 4 PM emissions are based on the revised calculations submitted as part of Operating Permit Renewal Application No. 4V08060, (Transmittal No. X224954), and Operating Permit Minor Modification No. 4M08061 (Transmittal No. X224953). Potential emissions are based on the maximum circulation water flow of 24,000 gal/min (1.44 x 10<sup>6</sup> gal/hr), 8760 operating hours per year, and a total dissolved solids concentration of 1600 ppm by weight.
14. 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).
15. 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).
16. Greenhouse gas (GHG) means any chemical or physical substance that is emitted into the air and that the MassDEP may reasonably anticipate will cause or contribute to climate change including, but not limited to, carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulfur hexafluoride.
17. EU1 and EU2 - UHC actual emissions, as propane, are calculated from emission rates measured during initial stack test using EPA Reference Method 25A.
18. In accordance with 40 CFR part 63, §63.6625(i), sources have the option to utilize an oil analysis program in order to extend the specified oil change requirement.

**B. COMPLIANCE DEMONSTRATION**

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

<b>Table 4</b>	
<b>Emission Unit (EU)</b>	<b>Monitoring/Testing Requirements</b>
EU 1	<p>1) In accordance with Plan Approval No. 4B07004, monitor and record for each consecutive 12 month period (i.e. each month and the previous 11 months), the fuel oil heat input to verify that the restriction of 718,000 MMBtu per 12 MRP is not exceeded.</p> <p>2) In accordance with Approval No. 4B90045, the usage of oil as a back up fuel shall be monitored.</p>
EU 2	<p>3) In accordance with 40 CFR 60, Subpart Db 60.46b(c) DPA shall determine compliance for the nitrogen oxide emission standards in 40 CFR 60.44b by performance testing under 40 CFR 60.46b(f)</p> <p>4) In accordance with 310 CMR 7.04(4)(a), inspect and maintain the fuel utilization facility in accordance with manufacturer’s recommendations and test for efficient operation at least once per calendar year.</p>
EU 1 EU 2	<p>5) In accordance with Plan Approval No. 4B90045 and Approval No. 4B06041, Dartmouth Power Associates (DPA) shall install, calibrate, test and operate data acquisition system(s) and continuous emissions monitoring system(s) (CEMS) to measure oxides of nitrogen (NO<sub>x</sub>), carbon monoxide (CO) and oxygen (O<sub>2</sub>). These CEMS shall conform to the requirements of 40 CFR 60 Appendix F and shall function continuously and be maintained in proper operating order at all times. DPA shall operate and maintain the NO<sub>x</sub> CEMS in accordance with USEPA Region I approval of an exception to monitoring water-to-fuel ratio approved as identified in Attachment II of an alternative to fuel monitoring schedule dated March 23, 1993.</p> <p>6) In accordance with Approval No. 4B90045, Approval No. 4B06024, the facility’s Quality Assurance Manual and 40 CFR 60, Appendix F, Dartmouth Power Associates (DPA) shall install and maintain an ammonia (NH<sub>3</sub>) continuous emissions monitoring system(s) (CEMS) as a “direct compliance” monitor. DPA shall continue to maintain the approved NH<sub>3</sub> CEMS as proposed in Plan Application No. 4B90045 and the facility’s Quality Assurance Manual and in accordance with 40 CFR 60 Appendix F – quality assurance procedures. The NH<sub>3</sub> CEMS analyzer is to be calibrated and maintained as a low-level, dual range (i.e.:0-25/0-50ppm) NO<sub>x</sub> analyzer. On a quarterly basis, DPA shall verify that the stack probe NH<sub>3</sub> converter temperature is within the manufacturer’s specified range to ensure proper conversion of NH<sub>3</sub> to NO (NO<sub>x</sub>). DPA shall perform a Relative Accuracy Test Audit (RATA) once every four quarters (annually) to ensure that the NH<sub>3</sub> CEMS performs within the Alternate RA limits identified in Final Approval No. 4B06024.</p> <p>7) In accordance with Approval No. 4B90045, all periods of excess emissions, even if attributable to an emergency, malfunction, or startup/shutdown, shall be quantified and included in the determination of 12-month rolling total emissions and for determination of compliance with the emission limits as stated in Table 3 and in Section 5. <u>Special Terms and Conditions</u>, Paragraph B – Table 8b.</p> <p>8) In accordance with Approval No. 4B90045, ensure that all stack monitors and recording equipment comply with MassDEP-approved performance and location specifications, and conform with the U.S. EPA monitoring specifications at 40 CFR 60.13; 40 CFR Part 60, Appendices B and F; and all applicable portions of 40 CFR Part 72 and 40 CFR Part 75.</p>



**Table 4**

Emission Unit (EU)	Monitoring/Testing Requirements
EU 1 EU 2	<p>9) In accordance with Approval No 4B90045, DPA shall install an opacity monitor. The opacity monitor shall conform to the requirements of 40 CFR 60, Appendix B and shall function continuously and be maintained in proper operating order at all times. The installation and operation of this opacity monitor constitutes compliance with 310 CMR 7.04(2)(a).</p>
	<p>10) In accordance with Approval No. 4B90045, 310 CMR 7.00: Appendix C(9)(b)2. and 40 CFR 60, Subpart GG 60.334(b)(2), DPA shall monitor the sulfur and nitrogen content of the fuel being fired in the combustion turbine.</p> <p><u>Natural Gas</u>: DPA shall sample natural gas for sulfur content every six (6) months and natural gas sampling of nitrogen is waived in its entirety if pipeline quality gas is supplied to DPA in accordance with USEPA Region I approval of an alternative fuel-monitoring schedule dated March 23, 1993.</p> <p><u>No. 2 Fuel Oil</u>: Fuel oil sulfur content values shall be determined on each occasion that fuel is transferred to the fuel oil storage tank from any source. USEPA has determined that there is no available test method to distinguish between fuel-bound and other forms of nitrogen. Therefore in accordance with the USEPA Region I approval of an alternative fuel-monitoring schedule dated March 23, 1993 DPA is not required to monitor fuel oil nitrogen content.</p>
	<p>11) In accordance with Approval No. 4B90045 and 40 CFR 60, Appendix F, operate each CEMS at all times except for periods of CEMS calibration checks, zero and span adjustments, and preventive maintenance.</p>
	<p>12) In accordance with Approval No. 4B90045 and 310 CMR 7.00: Appendix C(9)(b), ensure proper combustion to minimize emissions of UHC and PM by monitoring emissions of CO and opacity as stated in this Operating Permit; and conduct compliance testing of UHC emissions, as propane, using Method 25A, and compliance testing of PM emissions, using Method 5, upon request by MassDEP.</p>
	<p>13) In accordance with Approval No. 4B06004, comply with all monitoring provisions of 40 CFR Part 72 through Part 75, that are applicable to this facility. The permittee shall designate an hour during which fuel is fired for any period as an “operating hour”, in accordance with 40 CFR 72.2 definitions.</p>
	<p>14) In accordance with 310 CMR 7.70(8)(a)1.a. and Final Approval No. 4B08030, 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>15) In accordance with 310 CMR 7.70(8)(a)2.a. and Final Approval No. 4B08030, 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>16) In accordance with 310 CMR 7.70(8)(h)1. and Final Approval No. 4B08030, submit to the MassDEP or its agent net electrical output. <b>(State Only Requirement)</b></p>
	<p>17) In accordance with 310 CMR 7.70(8)(h)4.a. and Final Approval No. 4B08030, the billing meter shall record the electric output. <b>(State Only Requirement)</b></p>

**Table 4**

Emission Unit (EU)	Monitoring/Testing Requirements
EU 1 EU 2	18) In accordance with 310 CMR 7.70(8)(h)5.c. and Final Approval No. 4B08030, 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>
EU 3	19) In accordance with Approval No. 4B92028 and 4B94192 monitor the hours of operation, fuel input, and fuel sulfur content and calculate emissions to demonstrate compliance with approved emission and operating limitations.
	20) In accordance with Approval No. 4B92028 and 4B94192, inspect/adjust the ignition timing of the starter diesel at least every three (3) years to ensure that the ignition timing of the engine is maintained at 4 degrees retarded relative to standard timing.
	21) In accordance with 40 CFR 63 Subpart ZZZZ, §63.6625(f), install and maintain a non-resettable hour meter.
	22) As applicable, and in lieu of oil change required in Table 3, analyze engine oil for Total Base Number, viscosity, and percent water content as specified at §63.6625(i).
EU 4	23) In accordance with 310 CMR 7.00:Appendix C(9)(b) and Final Operating Permit No. 4V08060, for each day of operation, monitor the conductivity of the circulation water to determine the total dissolved solids in part per million, by weight for incorporation into a consecutive 12-month average.
EU 5	24) In accordance with Plan Approval No. 4B07004, maintain and operate a Continuous Emission Monitoring System (CEMS) and Data Acquisition and Handling System (DAHS) to measure and record the following emissions from the LM 2500 PE Combustion Turbine: a) Oxygen (O <sub>2</sub> ), b) Oxides of Nitrogen (NO <sub>x</sub> ), c) Carbon Monoxide (CO), and d) Ammonia (NH <sub>3</sub> )
	25) In accordance with Plan Approval No. 4B07004, maintain and operate a Continuous Opacity Monitoring System (COMS) and DAHS to measure and record opacity from the LM 2500 PE Combustion Turbine. The COMS shall meet all the requirements of Performance Specification 1 (PS 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.
	26) In accordance with Plan Approval No. 4B07004, the permittee shall develop a quality assurance/quality control (QA/QC) program for the long term operation of the CEMS/COMS servicing the LM 2500 PE Combustion Turbine which conforms to 40 CFR Part 60, Appendix F, all applicable portions of 40 CFR Parts 72 and 75 (Acid Rain Program), and 310 CMR 7.32 (Massachusetts Clean Air Interstate Rule).
	27) In accordance with Plan Approval No. 4B07004, the permittee shall install and maintain fuel flow meters to measure natural gas and ULSD input as required by 310 CMR 7.32.
	28) In accordance with Plan Approval No. 4B07004, the permittee shall install and maintain a net electric output monitoring system as required by 310 CMR 7.32.
	29) In accordance with Plan Approval No. 4B07004, the permittee shall ensure that the LM2500 PE Combustion Turbine complies with all applicable monitoring requirements at 40 CFR Part 60, Subpart KKKK.

**Table 4**

Emission Unit (EU)	Monitoring/Testing Requirements
EU 5	<p>30) In accordance with Plan Approval No. 4B07004, the permittee shall ensure continuous monitoring and compliance with PM/PM<sub>10</sub>/PM<sub>2.5</sub> limits utilizing the parametric monitoring methodology developed during the initial compliance test. PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions will be continuously estimated by (a) Data Acquisition and Handling System(s) (DAHS) using emission factors (lb/MMBtu) derived from initial compliance testing.</p>
	<p>31) In accordance with Plan Approval No. 4B07004, the permittee shall ensure that all emission monitors and recording equipment servicing the LM2500 PE Combustion Turbine comply with MassDEP approved performance and location specifications, and conform with the EPA monitoring specifications at 40 CFR Part 60.13 and 40 CFR Part 60 Appendices B and F, and all applicable portions of 40 CFR Parts 72 and 75.</p>
	<p>32) In accordance with Plan Approval No. 4B07004, the permittee shall ensure that the facility complies with all the applicable monitoring requirements contained in 40 CFR Parts 72 and 75 (Acid Rain Program), and 310 CMR 7.32 (Massachusetts Clean Air Interstate Rule).</p>
	<p>33) In accordance with Plan Approval No. 4B07004, the permittee shall operate each COMS/CEMS servicing the LM2500 PE Combustion Turbine at all times except for periods of COMS/CEMS calibration checks, zero and span adjustments, preventative maintenance, and periods of unavoidable malfunction.</p>
	<p>34) In accordance with Plan Approval No. 4B07004, the permittee shall obtain and record emission data from each COMS/CEMS servicing the LM2500 PE Combustion Turbine for at least 75% of the emission unit's operating hours per day, for at least 75% of the emission unit's operating hours per month, and for at least 95% of the emission unit's operating hours per quarter, except for periods of COMS/CEMS calibration checks, zero and span adjustments, and preventive maintenance.</p>
	<p>35) In accordance with Plan Approval No. 4B07004, all periods of excess emissions from the LM2500 PE Combustion Turbine, even if attributable to an emergency/malfunction, start up/shutdown or equipment cleaning, shall be quantified and included by the Applicant in the determination of annual emissions and compliance with the annual emission limits as stated in Table 3 of this Operating Permit. (<b>"Excess Emissions"</b> are defined as emissions, which are in excess of the short-term emissions as stipulated in Table 3) An exceedance of emission limits in Table 3 due to an emergency or malfunction shall not be deemed a federally permitted release as that term is used in 42 U.S.C. Section 9601(10).</p>
	<p>36) In accordance with Plan Approval No. 4B07004, the permittee shall use and maintain its COMS/CEMS servicing the LM2500 PE Combustion Turbine as "direct-compliance" monitors to measure opacity, NO<sub>x</sub>, CO, NH<sub>3</sub> and O<sub>2</sub> (reference gas only). "Direct-compliance" monitors generate data that legally documents the compliance status of a source.</p>
	<p>37) In accordance with Plan Approval No. 4B07004, the permittee shall install and operate continuous monitors and alarm systems to monitor the temperature at the inlet to the SCR catalyst servicing the LM2500 PE Combustion Turbine.</p>

<b>Table 4</b>	
<b>Emission Unit (EU)</b>	<b>Monitoring/Testing Requirements</b>
EU 5	<p>38) In accordance with Plan Approval No. 4B07004, the NH<sub>3</sub> CEMS shall comply with the CEMS linearity check and Relative Accuracy Test Audit (RATA) frequencies and grace periods specified in 40 CFR Part 75 in conducting linearity checks and RATA's. The relative accuracy (mean difference between the reference method values and the corresponding CEMS values) of the NH<sub>3</sub> CEMS shall be within the greater of +/- 15% of the approved NH<sub>3</sub> emission limits or +/- 0.75 ppmvdc or +/- 0.001 lb/MMBtu or lb/hr = +/- 0.001 lb/MMBtu x 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.</p> <p>39) In accordance with Plan Approval No. 4B07004, in the event that a given NH<sub>3</sub> CEMS RATA does not meet the relative accuracy specified in Table 4, provision 38., the following shall apply:</p> <p>a) The Applicant shall investigate the possible reasons for a RATA failure and whether repairs or adjustments are necessary for the NH<sub>3</sub> CEMS or its sampling location/path. If such NH<sub>3</sub> CEMS repairs or adjustments are necessary prior to a successful RATA, or if sampling location/path adjustments are required, then the NH<sub>3</sub> CEMS data shall be considered invalid from the time of the failed RATA until a successful RATA occurs.</p> <p>b) If no repairs or adjustments to the NH<sub>3</sub> CEMS are necessary between the time of a failed RATA and a successful RATA, and no sampling location/path adjustments are needed, then the NH<sub>3</sub> CEMS data shall be considered valid during the period between the failed RATA and successful RATA.</p> <p>40) In accordance with Plan Approval No. 4B07004, in the event data from the NH<sub>3</sub> CEMS is not available, corrective action shall be implemented as quickly as practical to bring the NH<sub>3</sub> CEMS back to service. During the time when the NH<sub>3</sub> CEMS is not available, the Applicant may submit a parametric monitoring methodology to the MassDEP for approval to provide assurance that the NO<sub>x</sub> levels, operating loads, and ammonia injection rates being maintained are consistent with prior NH<sub>3</sub> compliant operation.</p> <p>41) In accordance with Plan Approval No. 4B07004, the permittee shall equip the COMS/CEMS with audible and visible alarms to activate whenever emissions from the LM2500 PE Combustion Turbine exceed the limits established in Table 3 of this Operating Permit.</p> <p>42) In accordance with Plan Approval No.4B07004, conduct initial compliance testing within 180 days after initial start up of the LM2500 PE Combustion Turbine to demonstrate compliance with the emission limits (lb/hr, lb/MMBtu, ppmvdc, as applicable, and opacity) as specified for the pollutants listed below. Testing for these pollutants for the LM2500 PE Combustion Turbine will be conducted at base load. In addition, the Applicant shall evaluate and propose within the emissions test protocol a methodology for determining mass emissions during start-up and shutdown conditions.</p> <p style="text-align: center;"><b><u>Natural Gas and ULSD Firing</u></b>          Nitrogen Oxides (NO<sub>x</sub>)          Carbon Monoxide (CO)          Volatile Organic Compounds (VOC)          Particulate Matter (PM/PM<sub>10</sub>/PM<sub>2.5</sub>) and Opacity          Ammonia (NH<sub>3</sub>)</p> <p>The Applicant shall use the following EPA reference methods for particulate testing:</p> <p>a) 40 CFR Part 60, Appendix A, Methods 1 through 5 – Total Particulates; and          b) 40 CFR Part 51, Appendix M, Method 202 – Condensable Particulate Matter</p>

<b>Table 4</b>	
<b>Emission Unit (EU)</b>	<b>Monitoring/Testing Requirements</b>
EU 1 EU 2 EU 5	43) In accordance with 310 CMR 7.32, monitor and test as required by the Massachusetts Clean Air Interstate Rule. The permittee has submitted an application, under transmittal no. W153900, in accordance with 310 CMR 7.32 and shall modify this Operating Permit upon approval of the application.
EU 6	44) In accordance with 310 CMR 7.04(4)(a), inspect and maintain the fuel utilization facility in accordance with manufacturer’s recommendations and test for efficient operation at least once per calendar year.
EU 6 EU 7	45) In accordance with 40 CFR Part 63, Subpart JJJJJ, §63.11223(b)(5), measure the concentration in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the required biennial tune-up.
EU 8	46) In accordance with 40 CFR 63, Subpart ZZZZ, §63.6625(f), install and maintain a non-resettable hour meter.
	47) In accordance with 40 CFR 63, Subpart ZZZZ, §63.6625, as applicable, and in lieu of oil change required in Table 3, analyze engine oil for Total Base Number, viscosity, and percent water content as specified at §63.6625(i).
Facility-wide	48) In accordance with 310 CMR 7.13(1), (2) and 40 CFR 60, emissions testing shall be performed if and when the MassDEP and/or USEPA determine that stack testing is necessary to ascertain compliance with applicable regulations or design approval requirements.
	49) Monitor operations such that information may be compiled for the annual Source Registration/Emission Statement Form required by 310 CMR 7.12.
	50) In accordance with Plan Approval No. 4B07004, the permittee shall continue to monitor and record the sulfur content in natural gas used by the DPA facility every six (6) months in accordance with the alternative fuel monitoring schedule approved by US EPA on March 23, 1993. The sulfur content shall be determined by ASTM D1072 – “Standard Test Method for Total Sulfur in Fuel Gases”, or other MassDEP and US EPA approved methods. An increase in the sulfur content of the natural gas as shown by this monitoring, or other credible evidence, shall result in an increased monitoring frequency as determined by the MassDEP.
	51) In accordance with Plan Approval No. 4B07004, the permittee shall obtain a fuel analysis from the fuel supplier for each delivery of ULSD demonstrating that the fuel oil does not exceed the maximum sulfur content of 0.0015 % by weight as specified in this approval. Storage tank fuel oil sulfur content values shall be determined, in accordance with approved US EPA test methods, on each occasion that fuel is transferred to the fuel oil storage tank from any source.
	52) In accordance with 310 CMR 7.71(1) and Appendix C(9) establish and maintain data systems or record keeping practices (e.g. fuel use records, SF <sub>6</sub> usage documentation, Continuous Emissions Monitoring System) for greenhouse gas emissions to ensure compliance with the reporting provisions of M.G.L. c. 21N, the Climate Protection and Green Economy Act, St. 2008, c. 298, § 6. <b>(State Only Requirement)</b>

**Table 5**

<b>Emission Unit (EU)</b>	<b>Record Keeping Requirements</b>
EU 1	1) In accordance with Plan Approval No. 4B07004, the permittee shall maintain monthly records sufficient to demonstrate that the GE Frame 6 Combustion Turbine has not exceeded the consecutive 12-month period approved fuel oil heat input.
EU 2	2) In accordance with 310 CMR 7.04(4)(a), maintain records of the annual inspection and maintenance of the fuel utilization facility in accordance with the manufacturer's recommendations and test for efficient operation.
EU 1 EU 2	<p>3) In accordance with 40 CFR 60, Subpart GG 60.334(b)(2), maintain records on the natural gas fuel sulfur content, pursuant to the custom fuel monitoring schedule approved by U.S. EPA Region I (by letter dated March 23, 1993), or pursuant to any subsequent alternative fuel monitoring schedule issued for the facility.</p> <p>4) In accordance with Approval No. 4B90045 and Approval No. 4B92028 and 4B94192, the following quarterly report information shall be maintained on site at the facility:</p> <ul style="list-style-type: none"> <li>a.) A condensed version of all the continuous emissions monitoring reports generated. At a minimum, each report shall include the monthly minimum, monthly maximum and monthly average values for NO<sub>x</sub>, CO, O<sub>2</sub> and Opacity. In addition, the reports shall note if an exceedence of the emission limits has occurred, the possible reason(s) for the exceedence(s) along with future actions to be taken to prevent recurrences.</li> <li>b.) The quantity of No. 2 fuel oil in gallons and percent sulfur which was utilized in the combustion turbine during the three (3) month period and during the cumulative twelve (12) month rolling period.</li> </ul> <p>In accordance with Approval No. 4B90045, the information for the first quarterly report shall be based from the first day following the initial plant start up to the last day of the appropriate month for the quarter (March, June, September, or December).</p>
EU 1 EU 2	<p>5) In accordance with Approval No. 4B90045 as well as 40 CFR 60 (Appendix F) 40 CFR 60.7(f), separate operation and maintenance logs shall be maintained and shall be made available for review by MassDEP personnel during normal business hours. All related records and logs, are to be maintained for a period of at least five (5) years on site in accordance with 310 CMR 7.00: Appendix C(10)(b) and shall include the following information:</p> <ul style="list-style-type: none"> <li>a.) Records of hours of operation for the equipment including start-up and shutdown times.</li> <li>b.) Records of all maintenance activities (including all related problems, upsets or failures) performed on the turbine/generator set, HRSG unit, SCR unit, water injection system, CEM equipment, and other monitoring equipment.</li> <li>c.) Records of all performance tests, evaluations, measurements, calibrations, QA/QC checks, adjustments, performed on CEM, as well as any other related monitoring systems and devices.</li> </ul>
EU 1 EU 2	6) In accordance with Approval No. 4B90045, fuel oil purchase orders shall be maintained on site and be made available for review by MassDEP personnel upon request during normal business hours. This information shall be maintained for a period of at least five (5) years on site in accordance with 310 CMR 7.00: Appendix C(10)(b).
EU 1 EU 2	7) In accordance with Approval No. 4B90045, the permittee shall comply with 40 CFR 60 New Source Performance Standards (NSPS), Subpart A, General Provisions, Section 60.7 (Notification and Record Keeping).

**Table 5**

Emission Unit (EU)	Record Keeping Requirements
EU 1 EU 2	8) In accordance with Approval No. 4B90045 and Final Operating Permit No. 4V95059, the permittee shall comply with all applicable sections of 40 CFR 60 New Source Performance Standards (NSPS), Subpart GG and Subpart Db.
	9) In accordance with Approval No. 4B90045 and 310 CMR 7.00: Appendix C(10), establish and maintain records of emission calculations to demonstrate compliance with UHC and PM emission limits noted in Table 3.
	10) In accordance with 310 CMR 7.70(8)(e)1. and Final Approval 4B08030, comply with all record keeping 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>
	11) In accordance with 310 CMR 7.70(8)(h)6.a. and Final Approval 4B08030, comply with all output record keeping 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>
	12) In accordance with 310 CMR 7.70(8)(h)6.b. and Final Approval 4B08030, retain data used to monitor, determine, or calculate net generation for ten years from the date reported. <b>(State Only Requirement)</b>
EU 3	13) In accordance with Approval No. 4B92028 and 4B94192, accurate records of starter diesel engine run time and emissions shall be maintained on site at the facility to assure compliance with the approved maximum pollutant emission rates.
	14) In accordance with Approval No. 4B92028 and 4B94192, the permittee shall maintain records to certify ignition timing retard inspection/adjustment every 3 years regarding the starter diesel.
	15) In accordance with 40 CFR Part 63.6655(d) and Table 6 of Subpart ZZZZ, maintain record of operation in accordance with the manufacturer's emission-related operation and maintenance instructions; or a maintenance plan developed by the facility which provides, to the extent practicable, for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
	16) In accordance with 40 CFR Part 63.6655(e), maintain records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan.
	17) In accordance with 40 CFR Part 63.6655(f), maintain records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.
EU 4	18) In accordance with 310 CMR 7.00:Appendix C(10)(b) and Final Operating Permit No. 4V08060, maintain records of the cooling tower circulation rate (gallons) and total dissolved solids content of circulating water (ppm by wt) for each operating day, and the calculated monthly and consecutive 12-month period PM emissions.

**Table 5**

<b>Emission Unit (EU)</b>	<b>Record Keeping Requirements</b>
EU 5	<p>19) In accordance with Plan Approval No. 4B07004, a record keeping system for the LM2500 PE Combustion Turbine shall be established and maintained on site. All such records shall be maintained up-to-date such that year-to-date information is readily available for MassDEP examination upon request and shall be kept on-site for a minimum of five (5) years. Record keeping shall, at a minimum, include:</p> <p>a) Compliance records sufficient to demonstrate that emissions from the proposed equipment have not exceeded what is allowed by this Conditional Approval. Such records shall include, but are not limited to, fuel usage rates, fuel analysis, emissions test results, monitoring equipment data and reports.</p> <p>b) Maintenance: A record of routine maintenance activities performed on the LM2500 PE Combustion Turbine's 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.</p> <p>c) Malfunctions: A record of all malfunctions on the proposed emission units control and monitoring equipment including, at a minimum: the 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 corrective actions were completed and the proposed equipment was returned to compliance.</p>
	<p>20) In accordance with Plan Approval No. 4B07004, maintain records of natural gas and ULSD consumed by the LM2500 PE Combustion Turbine and shall maintain a record the sulfur content of fuels as determined by the required semi-annual sampling of natural gas and fuel oil analysis for each delivery of fuel oil.</p>
	<p>21) In accordance with Plan Approval No. 4B07004, maintain on-site for five (5) years all permanent records of output from all LM2500 PE Combustion Turbine continuous monitors for flue gas emissions, fuel consumption, SCR control system inlet temperature, and turbine inlet and ambient temperatures, and shall make these records available to the MassDEP upon request.</p>
	<p>22) In accordance with Plan Approval No. 4B07004, maintain a log to record problems, upsets or failures associated with the LM2500 PE Combustion Turbine emission control systems, DAHS, CEMS, or ammonia handling system.</p>
	<p>23) In accordance with Plan Approval No. 4B07004, comply with all applicable record keeping requirements regarding the LM2500 PE Combustion Turbine contained in 40 CFR 60, 40 CFR Parts 72 and 75 (Acid Rain Program), and 310 CMR 7.32 (Massachusetts Clean Air Interstate Rule).</p>
EU 1 EU 2 EU 5	<p>24) In accordance with 310 CMR 7.32, maintain records as required by the Massachusetts Clean Air Interstate Rule. The permittee has submitted an application, under transmittal no. W153900, in accordance with 310 CMR 7.32 and shall modify this Operating Permit upon approval of the application.</p>
EU 6	<p>25) In accordance with 310 CMR 7.04(4)(a), maintain records of the annual inspection and maintenance of the fuel utilization facility in accordance with the manufacturer's recommendations and test for efficient operation.</p>
EU 6 EU 7	<p>26) In accordance with 40 CFR Part 63.11225(c)(1) and as required in §63.10(b)(2)(xiv), keep a copy of each notification and report that you submitted to comply with this subpart and all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted.</p>



**Table 5**

<b>Emission Unit (EU)</b>	<b>Record Keeping Requirements</b>
EU 6 EU 7	<p>27) In accordance with 40 CFR Part 63.11225(c)(2)(i), keep records to document conformance with the work practices, emission reduction measures, and management practices required by §63.11214. Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.</p> <p>28) In accordance with 40 CFR Part 63.11225(c)(2)(ii), keep records documenting the fuel type(s) used monthly by each boiler, including, but not limited to, a description of the fuel, including whether the fuel has received a non-waste determination by you or EPA, and the total fuel usage amount with units of measure.</p> <p>29) In accordance with 40 CFR Part 63.11225(c)(4), keep records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment.</p> <p>30) In accordance with 40 CFR Part 63.11225(c)(5), keep records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in §63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.</p> <p>31) In accordance with 40 CFR Part 63.11225(d), records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1). As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each recorded action. You must keep each record onsite for at least 2 years after the date of each recorded action according to §63.10(b)(1). You may keep the records off site for the remaining 3 years.</p>
EU 8	<p>32) In accordance with 40 CFR Part 63.6655(d) and Table 6 of Subpart ZZZZ, maintain record of operation in accordance with the manufacturer's emission-related operation and maintenance instructions; or a maintenance plan developed by the facility which provides, to the extent practicable, for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.</p> <p>33) In accordance with 40 CFR Part 63.6655(e), maintain records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan.</p> <p>34) In accordance with 40 CFR Part 63.6655(f), maintain records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.</p>
Facility-wide	<p>35) In accordance with 310 CMR 7.12, maintain records to facilitate compilation of data for the annual Source Registration required by 310 CMR 7.12.</p>

**Table 5**

<b>Emission Unit (EU)</b>	<b>Record Keeping Requirements</b>
Facility-wide	<p>36) In accordance with Plan Approval No. 4B07004, maintain adequate monthly records to demonstrate the facility's compliance with the short term and long-term emission limitations of NO<sub>x</sub>, CO, VOC, SO<sub>2</sub>, PM/PM<sub>10</sub>/PM<sub>2.5</sub>, NH<sub>3</sub> specified in this Conditional Approval. At a minimum, the information shall include the amount of fuel used during the month for each unit, and the actual emissions (i.e. actual fuel times emission rate) of NO<sub>x</sub>, CO, VOC, PM/PM<sub>10</sub>/PM<sub>2.5</sub>, SO<sub>2</sub>, Individual HAPs and Total HAPs for the month as well as the prior 11 months, as well as adequate records to document facility-wide emissions.</p>
	<p>37) In accordance with 310 CMR 7.13 and 40 CFR 60 Appendix A, maintain records of any emissions compliance testing done, if such testing is requested by the MassDEP.</p>
	<p>38) In accordance with 310 CMR 7.00: Appendix C(10)(b), the permittee shall maintain records of all monitoring data and supporting information on-site for a period of at least five 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 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>39) In accordance with 310 CMR 7.71 (6) b. and c. retain at the facility for five years and make available to the MassDEP upon request copies of the documentation of the methodology and data used to quantify emissions.  <b>(State Only Requirement)</b></p>

**Table 6**

Emission Unit (EU)	Reporting Requirements <sup>(1)</sup>
EU 1	1) In accordance with Approval No. 4B90045, the Permittee shall report the quantity of No. 2 fuel oil in gallons and percent sulfur which was utilized in the combustion turbine during the three month period and during the cumulative twelve (12) month rolling period.
EU 2	2) In accordance with Operating Permit No. 4V95059, the Permittee shall comply with the reporting requirements in 40 CFR 60 New Source Performance Standards (NSPS), Subpart Db, Section 60.49b
EU 1 EU 2	3) In accordance with Administrative Consent Order No. ACOP-SE-05-7001 and Application No. 4M05047, the Permittee shall submit quarterly excess emissions reports, as defined by Conditional Approval No. 4B90045 and 40 CFR 60.7(c) and (d), to the regional office by April 15, July 15, October 15, and January 15 for the corresponding preceding three-month period.
	4) In accordance with 40 CFR 60, Subpart GG 60.334(b)(2) provide reports of natural gas fuel sulfur content, pursuant to the custom fuel monitoring schedule approved by U.S. EPA Region I (by letter dated April 28, 1998), or pursuant to any subsequent alternative fuel monitoring schedule issued for the facility.
	5) In accordance with Approval No. 4B01046, NO <sub>x</sub> emissions data should be reported directly to EPA's Nation 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.
	6) In accordance with 310 CMR 7.70(2)(a)5. and Final Approval No. 4B08030, 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>
	7) In accordance with 310 CMR 7.70(4)(a) and Final Approval No. 4B08030, 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 MassDEP by the March 1 following the relevant control period, a compliance certification report to <b>MassDEP, Bureau of Waste Prevention, 1 Winter Street, Boston, MA 02108 Attn: CO2 Budget Trading Program</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>
	8) In accordance with 310 CMR 7.70(6)(c) and Final Approval No. 4B08030, following the establishment of a CO <sub>2</sub> Allowance Tracking System account, all submissions to the MassDEP 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>
	9) In accordance with 310 CMR 7.70(8)(d) and Final Approval No. 4B08030, the CO <sub>2</sub> authorized account representative shall submit written notifications to the MassDEP and the Administrator in accordance with 40 CFR 75.61. <b>(State Only Requirement)</b>
	10) In accordance with 310 CMR 7.70(8)(e)1. and Final Approval No. 4B08030, 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>

**Table 6**

Emission Unit (EU)	Reporting Requirements <sup>(1)</sup>
EU 1 EU 2	11) In accordance with 310 CMR 7.70(8)(e)4.a.i. and Final Approval No. 4B08030, 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 MassDEP, for each calendar quarter beginning with the calendar quarter covering January 1, 2009 through March 31, 2009. <b>(State Only Requirement)</b>
	12) In accordance with 310 CMR 7.70(8)(e)4.c. and Final Approval No. 4B08030, submit to the MassDEP or its agent a compliance certification in support of each quarterly report. <b>(State Only Requirement)</b>
	13) In accordance with 310 CMR 7.70(8)(h)6.a. and Final Approval No. 4B08030, 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>
	14) In accordance with 310 CMR 7.70(8)(h)6.c. and Final Approval No. 4B08030, submit annual output reports in a spreadsheet both electronically and in hardcopy by March 1 for the immediately preceding calendar year to <b>MassDEP, Bureau of Waste Prevention, 1 Winter Street, Boston, MA 02108 Attn: CO2 Budget Trading Program</b> or the MassDEP's agent. <b>(State Only Requirement)</b>
EU 3 EU 8	15) In accordance with Table 2d of 40 CFR Part 63, Subpart ZZZZ, if an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.
EU 5	16) In accordance with Plan Approval No. 4B07004, the Permittee shall notify the MassDEP by telephone or fax as soon as possible, but in any case no later than three (3) days after the occurrence of any upsets or malfunctions to the approved LM2500 PE Combustion Turbine, air pollution control equipment, or monitoring equipment which result in an excess emission to air and/or a condition of air pollution.
	17) In accordance with Plan Approval No. 4B07004, the Permittee shall notify the MassDEP immediately by telephone or fax and within three (3) working days, in writing, of any upset or malfunction to the ammonia handling or delivery systems at the proposed facility. The Applicant also must comply with all notification procedures required under M.G.L. c. 21 E for any release or threat of release of ammonia.

**Table 6**

Emission Unit (EU)	Reporting Requirements <sup>(1)</sup>
EU 5	<p>18) In accordance with Plan Approval No. 4B07004, the Permittee shall submit a quarterly report to the MassDEP. The report shall be submitted by the 30<sup>th</sup> of the following month after the end of each quarter and shall contain at least the following information:</p> <ul style="list-style-type: none"> <li>a) The facility CEMS excess emission data, in a format acceptable to the MassDEP.</li> <li>b) For each period of excess emissions or excursions from allowable operating conditions for the proposed facility, the Applicant shall list the duration, cause, the response taken, and the amount of excess emissions. Periods of excess emissions shall include periods of start-up, shutdown, malfunction, emergency, equipment cleaning, and upsets or failures associated with the emission control system or CEMS. (“<b>Malfunction</b>” means any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions. “<b>Emergency</b>” means any situation arising from sudden and reasonably unforeseeable events beyond the control of this 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 Approval, 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 these things.)</li> <li>c) A tabulation of periods of operation (dispatch) of the proposed facility.</li> </ul>
	<p>19) In accordance with Plan Approval No. 4B07004, the permittee shall ensure that the facility complies with all applicable reporting requirements contained in 40 CFR Parts 72 and 75, 40 CFR Part 60 and 310 CMR 7.32.</p>
EU 1 EU 2 EU 5	<p>20) In accordance with 310 CMR 7.32, submit reports as required by the Massachusetts Clean Air Interstate Rule. The permittee has submitted an application, under transmittal no. W153900, in accordance with 310 CMR 7.32 and shall modify this Operating Permit upon approval of the application.</p>
EU 6 EU 7	<p>21) In accordance with 40 CFR Part 63.11225(a)(1) and (2), and as specified in § 63.9(b)(2), submit the initial notification no later than 120 calendar days after May 20, 2011 or within 120 days after the source becomes subject to the standard.</p> <p>22) In accordance with 40 CFR Part 63.11225(a)(4), submit the Notification of Compliance Status in accordance with §63.9(h) no later than 120 days after the applicable compliance date specified in §63.11196. In addition to the information required in §63.9(h)(2), your notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official:</p> <ul style="list-style-type: none"> <li>(i) “This facility complies with the requirements in §63.11214 to conduct an initial tune-up of the boiler.”</li> <li>(ii) “This facility has had an energy assessment performed according to §63.11214(c).”</li> <li>(iii) For an owner or operator that installs bag leak detection systems: “This facility has prepared a bag leak detection system monitoring plan in accordance with §63.11224 and will operate each bag leak detection system according to the plan.”</li> <li>(iv) For units that do not qualify for a statutory exemption as provided in section 129(g)(1) of the Clean Air Act: “No secondary materials that are solid waste were combusted in any affected unit.”</li> </ul>

**Table 6**

Emission Unit (EU)	Reporting Requirements <sup>(1)</sup>
EU 6 EU 7	<p>23) In accordance with 40 CFR Part 63.11225(b), prepare by March 1 of every other year, and submit to the delegated authority upon request, an biennial compliance certification report for the previous two calendar year period containing the information specified in paragraphs (b)(1) through (4) of this section. You must submit the report by March 15 if you had any instance described by paragraph (b)(3) of this section.</p> <p>(1) Company name and address.</p> <p>(2) Statement by a responsible official, with the official's name, title, phone number, e-mail address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart.</p> <p>(3) If the source experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken.</p> <p>(4) The total fuel use by each affected boiler subject to an emission limit, for each calendar month within the reporting period, including, but not limited to, a description of the fuel, whether the fuel has received a non-waste determination by you or EPA through a petition process to be a non-waste under §241.3(c), whether the fuel(s) were processed from discarded non-hazardous secondary materials within the meaning of §241.3, and the total fuel usage amount with units of measure.</p>
Facility-wide	<p>24) In accordance with 310 CMR 7.71(5), by April 15<sup>th</sup>, 2010 and April 15<sup>th</sup> of each year thereafter report emissions of greenhouse gases from stationary emissions sources including, but not limited to, emissions from factory stacks, manufacturing processes and vents, fugitive emissions, and other process emissions; and owned or leased motor vehicles when stationary source greenhouse gas emissions are greater than 5,000 short tons CO<sub>2</sub>e. Report greenhouse gas emissions electronically in a format that can be accommodated by the registry. <b>(State Only Requirement)</b></p> <p>25) In accordance with 310 CMR 7.71(6), certify greenhouse gas emissions reports using a form provided by the MassDEP or the registry. <b>(State Only Requirement)</b></p> <p>26) In accordance with 310 CMR 7.71(7), by December 31<sup>st</sup> of the applicable year submit to the MassDEP documentation of triennial verification of the greenhouse gas emissions report. <b>(State Only Requirement)</b></p> <p>27) In accordance with 310 CMR 7.12, submit annually information pertinent to the nature and amounts of emissions on forms provided by the MassDEP, and in addition, ensure that the facility is available for inspection by MassDEP and/or U.S. EPA personnel at any reasonable time.</p> <p>28) In accordance with 310 CMR 7.13(1) and 7.13(2), the Permittee, if determined by the MassDEP that stack testing is necessary to ascertain compliance with the MassDEP's regulations shall cause such stack testing to be summarized and submitted to the MassDEP as prescribed in the agreed-to test protocol.</p> <p>29) In accordance with 310 CMR 7.00 Appendix C(10)(f), the Permittee shall submit Operating Permit Deviation Reports within three (3) days following the incident which necessitated the reporting.</p>

<b>Table 6</b>	
<b>Emission Unit (EU)</b>	<b>Reporting Requirements<sup>(1)</sup></b>
Facility-wide	30) In accordance with 310 CMR 7.00 Appendix C(10), the Permittee shall submit <b>semi-annual</b> monitoring data summary reports to the MassDEP. The submission dates for such reports will be as follows: a.) <b>July 30<sup>th</sup></b> for all semi-annual summary reports ( <b>reporting for the first half of the present calendar year</b> ). b.) <b>January 30<sup>th</sup></b> for all semi-annual summary reports ( <b>reporting for the second half of the previous calendar year</b> ).
	31) In accordance with 310 CMR 7.00 Appendix C(5)(b)(9), the Permittee shall submit <b>annual</b> compliance certification reports to the MassDEP. The submission dates will be <b>January 30<sup>th</sup></b> for all Annual Compliance Certification Reports ( <b>reporting for the previous calendar year</b> ).
	32) In accordance with 310 CMR 7.00, Appendix C(10)(a), the Permittee, upon the MassDEP's request shall transmit any record relevant to the Operating Permit within 30 days of the request by the MassDEP or within a longer time period.
	33) All notifications and reporting required in accordance with Section No. 25 of this Operating Permit shall be sent directly to:  <div style="text-align: center;">           Department of Environmental Protection            Bureau of Waste Prevention            Southeast Regional Office            20 Riverside Drive            Lakeville, MA 02347             ATTN: Permit Chief             Telephone: (508) 946-2779            Fax: (508) 947-6557         </div>

**Note:**

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

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/Below employee threshold
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)
310 CMR 7.28	As of January 1, 2009, this regulation is no longer applicable; it was superseded by 310 CMR 7.32 Massachusetts Clean Air Interstate Rule (MassCAIR)
40 CFR Part 64	Compliance Assurance Monitoring/ No emission units subject to CAM
42 USC 7401, §112(r)(7)	Accidental Release Prevention Requirements: Risk Management under the Clean Air Act §112(r)



## 5. SPECIAL TERMS AND CONDITIONS

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

### A. Stack identification and parameters:

<b>Table 8a</b>						
<b>Emission Unit Stack Parameters</b>						
Emission Unit (EU)	Stack Number	Stack Height	Stack Exit Diameter	Exit Velocity	Exit Temperature	Stack Material
EU 1 and EU 2	1	168 ft.	141 in.	45.6 to 53 fps	approx 300° F	Carbon Steel
EU 3	2	20.5 ft.	10 in.	32 to 162 fps	approx 670° F	Carbon Steel
EU 4	3	29 ft.	360 in.	Up to 20 fps	32 to 95° F	Fiberglass
EU 5	4	80 ft.	120 in.	63 to 70 fps	730-750° F	Steel

- B. In accordance with Final Air Quality Operating Permit No. 4V95059, the following emission limits in Table 8b apply to EU 1 and EU 2 of the Dartmouth Power Associates facility during the defined operational periods of Start-up and Shutdown and are identified here as “Special Conditions”. During the defined operational periods of Start-up and Shutdown the NO<sub>x</sub>, CO and UHC ppmvd @ 15% O<sub>2</sub> lb/MMBTU and lb/hr Emission Limits in Table 3 do not apply.

<b>Table 8b</b>	
<b>Dartmouth Power Associates</b>	
<b>Start-up &amp; Shutdown Limits for NO<sub>x</sub>, CO and UHC</b>	
Pollutant	Emission Limit(s)
NO <sub>x</sub>	Cold Start: 105 pounds per hour Hot Start: 105 pounds per hour Shutdown: 105 pounds per hour
CO	Cold Start: 250 pounds per hour Hot Start: 60 pounds per hour Shutdown: 60 pounds per hour
UHC	Cold Start: 45 pounds per hour Hot Start: 45 pounds per hour Shutdown: 45 pounds per hour

**Table 8b Notes:**

1. Start-up: The time from initiation of a flame in EU 1 until the unit reaches the minimum-operating load of 75%.
2. Cold Start-up: Any start-up when the unit has been shutdown for 24 hours or more. A cold start-up shall last no longer than 180 minutes.
3. Hot Start-up: Any start-up when the unit has been shutdown for less than 24 hours. A hot start-up shall last no longer than 60 minutes.
4. Shutdown: The time operations are below 75% operating load until fuel flow to the unit is secured. A shutdown will not last longer than 60 minutes.

- C. In accordance with Plan Approval No. 4B90045, EU 1 and EU 2 TPY restrictions include EU 3 TPY maximum allowable emissions. EU 3 will operate a maximum of 300 hours per 12-month rolling period and shall not exceed the emission restrictions identified in Table 3.

- 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 MassDEP is the permitting authority for Phase II Acid Rain Permits. The Permittee became subject to the acid rain program on March 1, 2005. The MassDEP issued the initial Phase II Acid Rain Permit No. 4B06004 on April 7, 2006, and is incorporating the requirements of the Phase II Acid Rain Permit 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 allowance allocations as identified in 40 CFR Part 73, Tables 2, 3, or 4 (as amended) are identified below:

Table 8c		
EMISSION UNIT	YEAR	
	2010 and beyond	
EU 1	SO <sub>2</sub>	0
EU 2	allowances	

6. EU 5 was installed in accordance with 40 CFR Part 72.7 New units exemption.
  - (a) Applicability. This section applies to any new utility unit that has not previously lost an exemption under paragraph (f)(4) of this section and that, in each year starting with the first year for which the unit is to be exempt under this section:
    - (1) Serves during the entire year (except for any period before the unit commenced commercial operation) one or more generators with total nameplate capacity of 25 MWe or less;
    - (2) Burns fuel that does not include any coal or coal-derived fuel (except coal-derived gaseous fuel with a total sulfur content no greater than natural gas); and
    - (3) Burns gaseous fuel with an annual average sulfur content of 0.05 percent or less by weight (as determined under paragraph (d) of this section) and nongaseous fuel with an annual average sulfur content of 0.05 percent or less by weight (as determined under paragraph (d) of this section).
  - (b)(1) Any new utility unit that meets the requirements of paragraph (a) of this section and that is not allocated any allowances under subpart B of part 73 of this chapter shall be exempt from the Acid Rain Program, except for the provisions of this section, Sec. Sec. 72.2 through 72.6, and Sec. Sec. 72.10 through 72.13.
  - (d) Compliance with the requirement that fuel burned during the year have an annual average sulfur content of 0.05 percent by weight or less shall be determined as

follows using a method of determining sulfur content that provides information with reasonable precision, reliability, accessibility, and timeliness:

(1) For gaseous fuel burned during the year, if natural gas is the only gaseous fuel burned, the requirement is assumed to be met;

(2) For gaseous fuel burned during the year where other gas in addition to or besides natural gas is burned, the requirement is met if the annual average sulfur content is equal to or less than 0.05 percent by weight. The annual average sulfur content, as a percentage by weight, for the gaseous fuel burned shall be calculated as follows:

$$\%S_{\text{annual}} = \frac{\sum_{n=1}^{\text{last}} \%S_n V_n d_n}{\sum_{n=1}^{\text{last}} V_n d_n}$$

where:

$\%S_{\text{annual}}$  = annual average sulfur content of the fuel burned during the year by the unit, as a percentage by weight;

$\%S_n$  = sulfur content of the nth sample of the fuel delivered during the year to the unit, as a percentage by weight;

$V_n$  = volume of the fuel in a delivery during the year to the unit of which the nth sample is taken, in standard cubic feet; or, for fuel delivered during the year to the unit continuously by pipeline, volume of the fuel delivered starting from when the nth sample of such fuel is taken until the next sample of such fuel is taken, in standard cubic feet;

$d_n$  = density of the nth sample of the fuel delivered during the year to the unit, in lb per standard cubic foot; and

$n$  = each sample taken of the fuel delivered during the year to the unit, taken at least once for each delivery; or, for fuel that is delivered during the year to the unit continuously by pipeline, at least once each quarter during which the fuel is delivered.

(3) For nongaseous fuel burned during the year, the requirement is met if the annual average sulfur content is equal to or less than 0.05 percent by weight. The annual average sulfur content, as a percentage by weight, shall be calculated using the equation in paragraph (d)(2) of this section. In lieu of the factor, volume times density ( $V_n d_n$ ), in the equation, the factor, mass ( $M_n$ ), may be used, where  $M_n$  is: mass of the nongaseous fuel in a delivery during the year to the unit of which the nth sample is taken, in lb; or, for fuel delivered during the year to the unit continuously by pipeline, mass of the nongaseous fuel delivered starting from when the nth sample of such fuel is taken until the next sample of such fuel is taken, in lb.

(f) Special Provisions.

(1) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under this section shall:

(i) Comply with the requirements of paragraph (a) of this section for all periods for which the unit is exempt under this section; and

(ii) Comply with the requirements of the Acid Rain Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.

(2) For any period for which a unit is exempt under this section, the unit is not an affected unit under the Acid Rain Program and parts 70 and 71 of this chapter and is not eligible to be an opt-in source under part 74 of this chapter. As an unaffected unit, the unit shall continue to be subject to any other applicable requirements under parts 70 and 71 of this chapter.

(3) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under this section shall retain at the source that includes the unit records demonstrating that the requirements of paragraph (a) of this section are met. The 5-year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the Administrator or the permitting authority.

(i) Such records shall include, for each delivery of fuel to the unit or for fuel delivered to the unit continuously by pipeline, the type of fuel, the sulfur content, and the sulfur content of each sample taken.

(ii) The owners and operators bear the burden of proof that the requirements of paragraph (a) of this section are met.

(4) Loss of exemption. (i) On the earliest of the following dates, a unit exempt under paragraphs (b), (c), or (e) of this section shall lose its exemption and become an affected unit under the Acid Rain Program and parts 70 and 71 of this chapter:

(A) The date on which the unit first serves one or more generators with total nameplate capacity in excess of 25 MWe;

(B) The date on which the unit burns any coal or coal-derived fuel except for coal-derived gaseous fuel with a total sulfur content no greater than natural gas; or

(C) January 1 of the year following the year in which the annual average sulfur content for gaseous fuel burned at the unit exceeds 0.05 percent by weight (as determined under paragraph (d) of this section) or for nongaseous fuel burned at the unit exceeds 0.05 percent by weight (as determined under paragraph (d) of this section).

(ii) Notwithstanding Sec. 72.30(b) and (c), the designated representative for a unit that loses its exemption under this section shall submit a complete Acid Rain permit application on the later of January 1, 1998 or 60 days after the first date on which the unit is no longer exempt.

(iii) For the purpose of applying monitoring requirements under part 75 of this chapter, a unit that loses its exemption under this section shall be treated as a new unit that commenced commercial operation on the first date on which the unit is no longer exempt.

- E. In accordance with Plan Approval No. 4B07004, the Permittee shall only accept delivery of fuel oil for the 424,000-gallon fuel oil storage tank that meets the specifications of ULSD (i.e.  $\leq 0.0015$  % Sulfur by weight).
- F. The Permittee is subject to, and has stated in Operating Permit Application, Transmittal No. 018013 that it is in compliance with the requirements of 40 CFR 82, Protection of Stratospheric Ozone. These requirements are applicable to this facility and the U.S. Environmental Protection Agency enforces these requirements.
- G. In accordance with Plan Approval No. 4B07004, the Permittee shall not allow the LM2500 PE Combustion Turbine (EU 5) to operate at less than 90 percent power (or load), excluding start-ups and

shutdowns. Operation below 90 percent load is limited to no more than 30 minutes duration for each start up and shutdown or for a duration that may be otherwise practical to achieve start-up and shutdown.

- H. In accordance with Plan Approval No. 4B07004, the Permittee shall ensure that the LM2500 PE Combustion Turbine (EU 5) does not exceed the maximum generator output of 24.7 MW<sub>e</sub>.
- I. In accordance with Plan Approval No. 4B07004, the Permittee shall ensure that the SCR control equipment for the proposed LM2500 PE Combustion Turbine (EU 5) is operational whenever the turbine exhaust temperature attains 450 degrees Fahrenheit at the SCR catalyst face while firing natural gas and 550 degrees Fahrenheit at the SCR catalyst face while firing ULSD.
- J. In accordance with Plan Approval No. 4B07004, the Permittee shall maintain in the facility's control room, properly maintained, operable, portable ammonia detectors for use during an ammonia spill, or other emergency situation involving ammonia.
- K. In accordance with Plan Approval No. 4B07004, the Permittee shall ensure that the ammonia storage tank is equipped with high and low level audible alarm monitors.
- L. In accordance with Plan Approval No. 4B07004, the Permittee shall maintain an adequate supply of spare parts on-site to maintain the on-line availability and data capture requirements for the CEMS equipment servicing the LM 2500 PE Combustion Turbine (EU 5).
- M. In accordance with Plan Approval No. 4B07004, any significant changes to the Standard Operating and Maintenance Procedures (SOMP) for the LM 2500 PE Combustion Turbine (EU 5) or changes to the quality assurance/quality control (QA/QC) program developed for the long term operation of the CEMS/COMS servicing the LM 2500 PE Combustion Turbine (EU 5) shall be approved by the MassDEP.
- N. In accordance with Plan Approval No. 4B07004, the Permittee shall examine and propose, as part of the final emissions test results report, a surrogate methodology or parametric monitoring for PM, PM<sub>10</sub>, and PM<sub>2.5</sub> based on initial compliance test results. PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions will be continuously estimated by (a) Data Acquisition and Handling System(s) (DAHS) using emission factors (lb/MMBtu) derived from initial compliance testing.
- O. Emission units EU 3 and EU 8 are subject to the requirements of 40 CFR 63.1-15, Subpart A, "General Provisions" [as indicated in Table"8" to Subpart ZZZZ of 40 CFR 63]. Compliance with all applicable provisions therein is required.
- P. Emission units EU 6 and EU 7 are subject to the requirements of 40 CFR 63.1-15, Subpart A, "General Provisions" [as indicated in Table"8" to Subpart JJJJJ of 40 CFR 63]. Compliance with all applicable provisions therein is required.
- Q. In accordance with Plan Approval No. 4B07004 amended on June 26, 2012, the applicant (Permittee) has proposed to comply with the "Town of Dartmouth Special Limit for Plant Contribution" as approved in Application No. 4B90045, with the exception of Location 1 and Location 5. This limit will include the existing plant equipment as well as the new equipment. For the purposes of this approval, the original ambient noise impact assessment was reviewed with a focus on any new receptors. Using the most recent aerial photographs, the receptors used in the

application for the existing facility appear to conservatively represent any new residential construction that has taken place and compliance with the modified Table 3 of Plan Approval No. 4B07004 (amended on June 26, 2012), will ensure that compliance with the Department's Noise Policy will be maintained. Based on the post-construction sound emission mitigation and the submitted Environmental Sound – Compliance Testing Results, dated 7/15/2011, the applicant (Permittee) has demonstrated compliance with the Department's Noise Policy (**State Only Requirement**).

1. The Applicant (Permittee) shall take necessary precautions to insure that the facility complies with the Department's noise regulation and policy and that the facility does not cause a condition of air pollution (**State Only Requirement**).
2. Department Noise Policy 90-001 limits increases over the existing L<sub>90</sub> background level to 10 dB(A). Additionally, "pure tone" sounds, defined as any octave band level that exceeds the levels in adjacent octave bands by 3 dB(A) or more, are also prohibited. The Applicant (Permittee), at a minimum, shall ensure that the proposed facility complies with said Policy (**State Only Requirement**).
3. The allowable noise levels generated from the operation of the Project by the Applicant (Permittee) are summarized below and in Table 3 of Plan Approval No. 4B07004 (amended on June 26, 2012). Further, based on the noise frequency distribution, no combination of noise sources shall result in a "pure tone condition," as previously defined (**State Only Requirement**).

Table 3: Allowable Noise Impacts (Plan Approval No. 4B07004 amended on June 26, 2012)				
Location	Lowest Residual Noise Level <sup>1</sup> [dB(A)]	4B90045 approved Facility Plus Ambient Noise Level [dB(A)]	Modified 4B07004 allowable Facility Plus Ambient Noise Level [dB(A)]	Increase over Lowest Residual [dB(A)]
<b>Location 1</b> Snack Shack	32	35	36	4
<b>Location 2</b> Access Road	30	35	35	5
<b>Location 3</b> Residence, NW	29	32	32	3
<b>Location 4</b> Transmission Line	31	33	33	2
<b>Location 5</b> Vacant Land, East	30	35	39	9
<b>Location 6</b> Residence, NE	30	35	35	5
<b>Location 7</b> Near Energy Road	30	36	36	6
<b>Location 8</b> SW Corner, Parcel 67-14	29	35	35	6
<b>Location 9</b> NE Corner, Parcel 62-22	31	34	34	3

**Table 3 Notes:**

1. The lowest background sound levels (one hour) observed where the noise level is exceeded 90 percent of the time (L<sub>90</sub>), which is the level regulated by the Massachusetts DEP Noise Policy.
4. As demonstrated by the referenced submittals, the Applicant (Permittee) has conducted a noise survey in accordance with Department procedures/guidelines to verify compliance with the allowable noise impacts specified in Table 3 of Plan Approval No. 4B07004

amended on June 26, 2012. For the purposes of any future sound compliance demonstration, sources of noise surveyed shall include, but are not limited to: combustion turbine exhaust (exhaust silencer), turbine air intake, SCR structure, turbine enclosure, generator enclosure, turbine ventilation exhaust, auxiliary skid enclosure, water injection skid enclosure, generator ventilation exhaust, intake silencer, turbine ventilation fan and motor, generator ventilation fan and motor, and transformers (**State Only Requirement**).

## **6. ALTERNATIVE OPERATING SCENARIOS**

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

## **7. EMISSIONS TRADING**

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

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

40 CFR 72, 73, and 74:	SO <sub>2</sub> Allowance System
310 CMR 7.22:	SO <sub>2</sub> Emissions Reductions for the Purpose of Reducing Acid Rain
310 CMR 7.32:	Massachusetts Clean Air Interstate Rule (Mass CAIR)
310 CMR 7.70:	Massachusetts CO <sub>2</sub> Budget Trading Program (State-Only)
310 CMR 7.00, Appendix A:	Emission Offsets
310 CMR 7.00, Appendix B:	Emission Reduction Credits

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 MassDEP 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 MassDEP pursuant to 310 CMR 7.00: Appendix B.

### **(b) Inter-facility emission trading**

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

40 CFR 72, 73, and 74:	SO <sub>2</sub> Allowance System
310 CMR 7.22:	SO <sub>2</sub> Emissions Reductions for the Purpose of Reducing Acid Rain
310 CMR 7.32:	Massachusetts Clean Air Interstate Rule (Mass CAIR)
310 CMR 7.70:	Massachusetts CO <sub>2</sub> Budget Trading Program (State-Only)
310 CMR 7.00, Appendix A:	Emission Offsets
310 CMR 7.00, Appendix B:	Emission Reduction Credits

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

## **8. COMPLIANCE SCHEDULE**

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

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



## **GENERAL CONDITIONS FOR OPERATING PERMIT**

### **9. FEES**

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

### **10. COMPLIANCE CERTIFICATION**

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

In the event the MassDEP 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 MassDEP 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 MassDEP and/or EPA. The responsible official of the facility may request that the MassDEP terminate the facility's operating permit for cause. The MassDEP 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 MassDEP'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 MassDEP 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 MassDEP a material error or omission in any records, reports, plans, or other documents previously provided to the MassDEP.

**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 MassDEP.

**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 MassDEP, 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 MassDEP 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

---

<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.

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 MassDEP 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.

## **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 MassDEP'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 MassDEP Bureau of Waste Prevention Air

Operating Permit Reporting Kit, which is available to the Permittee via the MassDEP'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 MassDEP 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**

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
CH <sub>4</sub>	=	Methane
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
DPA	=	Dartmouth Power Associates, L.P.
° C	=	Degrees Celsius
° F	=	Degrees Fahrenheit
ECP	=	Emission control plan
EPA	=	U.S. Environmental Protection Agency
EU	=	Emission Unit
FMF FAC. No.	=	Facility master file number
FMF R.O. No.	=	Facility master file regulated object number
GCV	=	gross calorific value
Gal/min	=	gallons per minute
Gal/hr	=	gallons per hour
Gal/Month	=	gallons per month
GE	=	General Electric
GHG	=	Greenhouse gas
HAP	=	Hazardous Air Pollutant
HFC	=	Hydrofluorocarbon (s)
Hg	=	Mercury
HHV	=	Higher Heating Value
HP	=	Horsepower
HRSG	=	Heat Recovery Steam Generator
kPa	=	kilopascal
kW	=	kilowatt
lbs/hr	=	Pounds per Hour
lbs/MMBtu	=	Pounds per Million Btu
lbs/MWh	=	Pounds per Megawatt-hour
MACT	=	Maximum Achievable Control Technology
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
MW	=	Megawatt
MW <sub>e</sub>	=	Megawatt (electrical)
MWh	=	Megawatt-hour (net electrical output)



MRP	=	month rolling period (consecutive months)
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
N <sub>2</sub> O	=	Nitrous oxide
O <sub>2</sub>	=	Oxygen
ORIS	=	Office of Regulatory Information Systems
PFC	=	Perfluorocarbon (s)
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
PSI	=	pounds per square inch
QA	=	Quality Assurance
QC	=	Quality Control
RATA	=	Relative Accuracy Test Audit
SCR	=	Selective Catalytic Reduction
S	=	Sulfur
SO <sub>2</sub>	=	Sulfur Dioxide
SF <sub>6</sub>	=	Sulfur hexafluoride
SOMP	=	Standard Operating and Maintenance Procedures
TDS	=	total dissolved solids
TPY	=	Tons per consecutive twelve (12) month period
UHC	=	Unburned Hydrocarbons
ULSD	=	Ultra Low Sulfur Distillate oil ( ≤ 0.0015% by weight)
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>	=	1,000,000

## **APPEAL CONDITIONS FOR OPERATING PERMIT**

This permit is an action of the MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing within twenty-one (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 MassDEP'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 MassDEP may waive the adjudicatory hearing filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.