

# 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

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

> KENNETH L. KIMMELL Commissioner

# FINAL AIR QUALITY OPERATING PERMIT

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

Dominion Energy Brayton Point, LLC 5000 Dominion Blvd Glen Allen, Virginia 23060

## **FACILITY LOCATION:**

Dominion Energy Brayton Point 1 Brayton Point Road Somerset, Massachusetts 02726

#### **NATURE OF BUSINESS:**

Electric Power Generation

## **RESPONSIBLE OFFICIAL:**

Name: Mr. Peter M. Balkus Title: Station Director

## **INFORMATION RELIED UPON:**

Application No. 4V04019
Transmittal No. W051616
(includes):
Minor Mod. No. SE-11-039, Transmittal No. X241366

## **FACILITY IDENTIFYING NUMBERS:**

AQ ID: 1200061 FMF FAC NO. 402959 FMF RO NO. 407197

STANDARD INDUSTRIAL CODE (SIC): 4911

NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM (NAICS): 221112

#### **FACILITY CONTACT PERSON:**

Name: Ms. Sheila A. Medeiros

Title: Sr. Environmental Compliance Coordinator

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## This operating permit shall expire on <u>July 25, 2016</u>.

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

Chief, Permit Section

(Operating Permit signed 7/25/11)

Date

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## SPECIAL CONDITIONS FOR OPERATING PERMIT

A Legend to Abbreviated Terms found in the following Tables is located in Section 28 of the Operating Permit.

## 1. PERMITTED ACTIVITIES

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

## DESCRIPTION OF FACILITY AND OPERATIONS

Brayton Point Station consists of three primarily coal-fired boilers (designated as Emission Unit Nos. EU 1, EU 2, and EU 3) and one fuel oil and natural gas-fired boiler (designated as Emission Unit No. EU 4) for a total nominal generating capacity of approximately 1,600 MW. The facility is located in Somerset, Bristol County, Massachusetts, on a peninsula in Mount Hope Bay. The principal materials handling and storage activities at Brayton Point Station consist of coal receiving via ships, coal pile storage, and covered conveying. Additionally, fly ash from EU 1, 2, and 3 is collected, temporarily stored in silos, and transferred to on-site or off-site areas via covered dump trucks or dry haulers, or is transferred to the Ash Reduction Process (EU 12) pneumatically.

Emission Unit No. 1 (EU 1) utilizes pulverized coal at 100 percent MCR, natural gas at 25 percent MCR as a secondary fuel, No. 6 fuel oil at 100 percent MCR as a backup fuel, and No. 2 fuel oil at 100 percent MCR as an alternate backup fuel.

EU 1 has been equipped with an SCR system for the control of NO<sub>x</sub> emissions, a dry flue gas desulfurization system consisting of a SDA/FF for the control of SO<sub>2</sub> and PM, and PAC injection systems for the control of Hg. The SCR system is designed for up to 90 percent control of NO<sub>x</sub> and utilizes aqueous NH<sub>3</sub> to generate NH<sub>3</sub> for injection at the SCR inlet. The SDA/FF system, located downstream of the ESPs, is designed for up to 90 percent control of SO<sub>2</sub>. Lime is mixed with water and pumped to the SDA for SO<sub>2</sub> removal. The PAC injection system for removal of Hg includes three PAC injection locations: upstream of the Koppers ESPs, upstream of the R-C ESPs, and upstream of the SDA/FF system. The PAC injection system in conjunction with the SDA/FF is designed for up to 95 percent control of Hg.

Emission Unit No. 2 (EU 2) utilizes pulverized coal at 100 percent MCR, natural gas at 25 percent MCR as a secondary fuel, No. 6 fuel oil at 100 percent MCR as a backup fuel, and No. 2 fuel oil at 100 percent MCR as an alternate backup fuel.

EU 2 has been equipped with a dry flue gas desulfurization system consisting of a SDA/FF for the control of SO<sub>2</sub> and PM, and PAC injection systems for the control of Hg. The SDA/FF

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system, located downstream of the ESPs, is designed for up to 90 percent control of SO<sub>2</sub>. Lime is mixed with water and pumped to the SDA for SO<sub>2</sub> removal. The PAC injection system for removal of Hg includes three PAC injection locations: upstream of the Koppers ESPs, upstream of the R-C ESPs, and upstream of the SDA/FF system. The PAC injection system in conjunction with the SDA/FF is designed for up to 95 percent control of Hg.

Emission Unit No. 3 (EU 3) utilizes pulverized coal at 100 percent MCR, natural gas at 10 percent MCR as a secondary fuel, No. 6 fuel oil at 100 percent MCR as a backup fuel, and No. 2 fuel oil at 100 percent MCR as an alternate backup fuel.

EU 3 has been equipped with an SCR system for the control of NO<sub>x</sub> emissions, and a PAC injecttion system for the control of Hg. The SCR system is designed for up to 90 percent control of NO<sub>x</sub> and utilizes aqueous NH<sub>3</sub> to generate NH<sub>3</sub> for injection at the SCR inlet. A DS/FF system designed for up to 90 percent control of SO<sub>2</sub> is under construction and is scheduled to be in operation during the first quarter of 2014. The PAC injection system for removal of Hg includes two PAC injection locations: upstream of the Koppers ESPs and upstream of the R-C ESPs. It is proposed to construct an additional PAC injection location upstream of the DS/FF. The PAC injection system in conjunction with the ESPs alone is designed for up to 80 percent control of Hg. With the addition of the third PAC injection location at the DS/FF, the entire system will be designed for up to a maximum of 95 percent control of Hg.

Emission Unit No. 4 (EU 4) utilizes residual oil and natural gas fuels. It is equipped with a R-C ESP for the control of PM emissions; and Rodenhuis & Verloop low-NO<sub>x</sub> burners, and Riley Stoker flue gas recirculation for the control of  $NO_x$  emissions.

The ash reduction process (ARP), which is identified as Emission Unit No. EU 12, processes coal fly ash in a fluid bed furnace and produces a high quality ash with low carbon content for use as a replacement of Portland cement in the production of concrete. The ARP furnace recovers a substantial amount of the heat that would normally be wasted through the disposal of high-carbon fly ash. The furnace has a maximum design heat input of 97 MMBtu/hr with the exhaust routed through a fabric filter (FF) particulate control device and then conveyed to the windbox of Emission Unit Nos. EU 1 or EU 3, and when both EU 1 and EU 3 are not operating, the ARP will be shut down. The furnace heat input is provided by the high carbon ash and augmented as necessary with natural gas and powder activated carbon (PAC). Based in a determination issued by U.S. EPA-Region 4, 40 CFR 60, Subpart Dc applies to the ARP because the ARP heat recovery meets the definition of a "steam generating unit." However, because the fly ash and PAC are not considered to meet the definition of coal, no Subpart Dc emission standards apply. The facility must, however, meet the recordkeeping and reporting requirements of 40 CFR 60.48c(g) and the general provisions of 40 CFR 60.7.

The facility is subject to the requirements of 40 CFR 64 (Compliance Assurance Monitoring) for particulate matter emissions from Emission Unit Nos. EU 1 through EU 4, and Emission Unit Nos. EU 14 and EU 15.

The facility is a major source of hazardous air pollutants (HAP).

Emission Unit Nos. EU 1, 2, 3, and 4 are subject to the requirements of the Massachusetts Clean Air Interstate Rule (CAIR) under 310 CMR 7.32. The permittee has submitted a BWP AQ29 CAIR permit application (Transmittal No. W152786) pursuant to 310 CMR 7.32(3). Upon

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approval of the submitted CAIR permit application, the permittee shall submit a BWP AQ10 Minor Modification application to incorporate the requirements into this Operating Permit. On August 28, 2008, the Brayton Point facility submitted a Prevention of Significant Deterioration (PSD) permit application to U.S. EPA to construct and operate a dry scrubber and fabric filter (DS/FF) on EU 3 and two new natural draft cooling towers (No. 1 and 2, identified as Emission Unit Nos. 14 and 15). This application was significantly revised in a January 9, 2009 submittal. On April 2, 2009, EPA issued PSD Permit No. 052-120-MA14 for Cooling Towers No. 1 and No. 2. The cooling towers are part of a closed-cycle cooling system that is being installed at the facility. Operation of the cooling towers will result in a significant potential emission increase of particulate matter less than 2.5 micrometers ( $\mu$ m) and particulate matter less than 10  $\mu$ m with an associated increase in particulate matter potential emissions of 194.5 tons per year for each cooling tower. The addition of EU 3 DS/FF and cooling tower emissions to this Operating Permit renewal constitutes a Significant Modification to the originally-issued Operating Permit.

On October 7, 2009, EPA issued a second PSD Permit (Permit No. 052-120-MA15) for the construction and operation of the DS/FF emission control system for EU 3.

# 2. <u>EMISSION UNIT IDENTIFICATION</u>

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

	Table 1					
Emission Unit (EU#)	Description of Emission Unit	EU Design Capacity	Pollution Control Device (PCD)			
EU 1	Unit 1: Combustion Engineering MFR # 19407 Type CC, Water Tube Boiler (to Stack No. 1)	2,250 MMBtu per hour 255 Megawatts (Net)	Selective Catalytic Reduction R-C Electrostatic Precipitators Low NO <sub>X</sub> Burners with Overfire Air Management of Lower Sulfur Fuels Spray Dryer Absorber Fabric Filter Baghouse Powder Activated Carbon PCD-1			
EU 2	Unit 2: Combustion Engineering MFR # 19617 Type CC, Water Tube Boiler (to Stack No. 2)	2,250 MMBtu per hour 255 Megawatts (Net)	Flue Gas Conditioning R-C Electrostatic Precipitators Low NO <sub>X</sub> Burners with Overfire Air Management of Lower Sulfur Fuels Spray Dryer Absorber Fabric Filter Baghouse Powder Activated Carbon  PCD-2			
EU 3	Unit 3: Babcock and Wilcox Model # UP-52 Water Tube Boiler (to Stack No. 3)	5,655 MMBtu per hour 633 Megawatts (Net)	Selective Catalytic Reduction R-C Electrostatic Precipitators Low NO <sub>X</sub> Burners with Overfire Air Management of Lower Sulfur Fuels Dry Scrubber Fabric Filter Baghouse Powder Activated Carbon PCD-3			
EU 4	<u>Unit 4:</u> Riley Stoker Model # 1SR Water Tube Boiler (to Stack No. 4)	4,800 MMBtu per hour 446 Megawatts (Net)	Electrostatic Precipitators Low NO <sub>X</sub> Burners Management of Lower Sulfur Fuels Flue Gas Recirculation PCD-4			
EU 5	Diesel Generator Unit No. 1: General Motors Model # 20-645-E44	28 MMBtu per hour	Retard Timing Ultra-Low Sulfur Fuel Crankcase Ventilation			

Table 1 (continued)					
Emission Unit (EU#)	Description of Emission Unit	EU Design Capacity	Pollution Control Device (PCD)		
EU 6	Diesel Generator Unit No. 2: General Motors Model # 20-645-E44	28 MMBtu per hour	Retard Timing Ultra-Low Sulfur Fuel Crankcase Ventilation		
EU 7	Diesel Generator Unit No. 3: General Motors Model # 20-645-E44	28 MMBtu per hour	Retard Timing Ultra-Low Sulfur Fuel Crankcase Ventilation		
EU 8	Diesel Generator Unit No. 4: General Motors Model # 20-645-E44	28 MMBtu per hour	Retard Timing Ultra-Low Sulfur Fuel Crankcase Ventilation		
EU 10	Underground Gasoline Storage Tank	5,000 gallons	Stage II Vapor Recovery PCD-6		
EU 11	Coal Storage Pile	680,000 tons	Water Sprays, Dust Suppressant, Surface Sealant PCD-7		
EU 12	Ash Reduction Process (ARP)  Goodhart Sons	97 MMBtu per hour 6,930 lb/hr carbon	(Exhaust of ARP routed to the windbox of EU 1 or EU 3)		
EU 14	Cooling Tower 1 SPX/Series 800	360,000 gpm circulating water flow	Drift Eliminators (limiting water mist to 0.0005% of circulating water flow)		
EU 15	Cooling Tower 2 SPX/Series 800	360,000 gpm circulating water flow	Drift Eliminators (limiting water mist to 0.0005% of circulating water flow)		
EU 16	Parts Degreasers Super Brute (9 units)	35 and 45 gallon capacity	Closed Covers		
EU 17	Gasoline Dispensing Gasboy Model 9153ACXF	N/A	Balance Stage II System		

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# 3. <u>IDENTIFICATION OF EXEMPT ACTIVITIES</u>

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

Table 2						
Description of Current Exempt Activities	Reason					
The list of current exempt activities is contained in the Operating Permit application and shall be updated by the permittee to reflect changes at the facility over the permit term. An up-to-date copy of exempt activities list shall be kept on-site at the facility and a copy shall be submitted to 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. <u>APPLICABLE REQUIREMENTS</u>

## A. <u>EMISSION LIMITS AND RESTRICTIONS</u>

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

	Table 3					
EU#	Fuel	Pollutant	Emissions Limit/Standard	Applicable Regulation and/or (Approval No.)		
			≤ 2 ppm @ 3% O <sub>2</sub> <sup>(1)</sup>			
EU 1	All Fuels	NILI	≤ 0.001 lb/MMBtu <sup>(1)</sup>	Approval No. 4B08052		
EUI	All Fuels	NH <sub>3</sub>	≤ 2.26 lb/hr <sup>(1)</sup>			
			≤ 9.9 tpy			
	Coal		≤ 0.40 lb/MMBtu (annual average basis)	Approval No. 4B97105		
			≤ 0.38 lb/MMBtu <sup>(2)</sup>			
	No. 6 Fuel Oil	NO <sub>x</sub>	≤ 0.25 lb/MMBtu <sup>(2)</sup>	Approval No. 4B93086		
	No. 2 Fuel Oil		≤ 0.25 lb/MMBtu <sup>(2)</sup>	310 CMR 7.19(4)(a)		
	Natural Gas		≤ 0.20 lb/MMBtu <sup>(2)</sup>			
	Co-Firing Fuels		≤ PS <sub>NOx</sub> (2,3)	310 CMR 7.19(15)		
		СО	$\leq$ 100 ppm by volume, dry basis at 3% $O_2^{(2)}$	Approval No. 4B93086		
EU 1		PM <sup>(4,5)</sup>	≤ 0.08 lb/MMBtu			
EU 2		PM <sub>10</sub> (4,7)	≤ 180.0 lb/hr	Approval No. 4B08052		
	All Finals	PM <sub>2.5</sub> (4,7)	≤ 788.4 tpy			
	All Fuels	Opacity	≤ 20%, except > 20 to ≤ 40% for ≤ 2 minutes during any one hour, at no time to exceed 40%	310 CMR 7.06(1)(b)		
		Smoke	< No. 1 of the Chart <sup>(8)</sup> , except ≥ No. 1 to < No. 2 of the Chart for ≤ 6 minutes during any one hour, at no time to equal or exceed No. 2 of the Chart	310 CMR 7.06(1)(a)		
	Coal	S in Fuel	≤ 1.23 lb/MMBtu per calendar day ≤ 1.21 lb/MMBtu per 30 day rolling period	Approval No. 4B91064		

	Table 3 (continued)					
EU#	Fuel	Pollutant	Emissions Limit/Standard	Applicable Regulation and/or (Approval No.)		
	No. 6 Fuel Oil	S in Fuel	≤ 1.21 lb/MMBtu	Approval No. 4B88148 310 CMR 7.05(1)(a)1.		
	No. 2 Fuel Oil		≤ 0.17 lb/MMBtu	310 CMR 7.05(1)(a)2.		
EU 1 EU 2	Coal	SO <sub>2</sub>	≤ 2.46 lb/MMBtu per calendar day ≤ 2.42 lb/MMBtu per 30 day rolling	Approval No. 4B91064		
	Coai	Ash in Fuel	period  May exceed 9% by weight, dry basis	Approval No. 4B88148		
	Coal		≤ 0.46 lb/MMBtu (annual average basis)	Approval No. 4B97105		
		NO <sub>x</sub>	≤ 0.45 lb/MMBtu <sup>(2)</sup>			
	No. 6 Fuel Oil		≤ 0.28 lb/MMBtu <sup>(2)</sup>	Approval No. 4B93107		
	No. 2 Fuel Oil		≤ 0.28 lb/MMBtu <sup>(2)</sup>	310 CMR 7.19(4)(a)		
	Natural Gas		≤ 0.28 lb/MMBtu <sup>(2)</sup>			
	Co-Firing Fuels		≤ PS <sub>NOx</sub> (2,3)	310 CMR 7.19(15)		
		СО	≤ 200 ppm by volume, dry basis at 3% O <sub>2</sub> <sup>(2)</sup>	Approval No. 4B95073		
		PM <sup>(22)</sup>	≤ 0.08 lb/MMBtu	Approval No. 4B88148		
EU 3	All Fuels	PM <sup>(5,6,9,10)</sup>	≤ 0.010 lb/MMBtu ≤ 56.6 lb/hr ≤ 247.7 tpy	Approval No. 4B08052		
		PM <sub>10</sub> (6,7,9) PM <sub>2.5</sub> (6,7,9)	≤ 0.025 lb/MMBtu ≤ 141.4 lb/hr ≤ 619.2 tpy (filterable & condensable)	Approval No. 4B08052 PSD Permit No. 052-120-MA15		
			PM <sub>10</sub> (6) PM <sub>2.5</sub> (6)	≤ 0.010 lb/MMBtu ≤ 56.6 lb/hr (filterable only)	PSD Permit No. 052-120-MA15	

Table 3 (continued)					
EU#	Fuel	Pollutant	Emissions Limit/Standard	Applicable Regulation and/or (Approval No.)	
	All Fuels	NH₃	$\leq 2 \text{ ppm } \textcircled{3}\% \text{ O}_{2}^{(1)}$ $\leq 0.001 \text{ lb/MMBtu}^{(1)}$ $\leq 5.71 \text{ lb/hr}^{(1)}$ $\leq 25.0 \text{ tpy}$	Approval No. 4B08052	
		Opacity	≤ 20%, except > 20 to ≤ 40% for ≤ 2 minutes during any one hour, at no time to exceed 40%  Shall not exceed 10% <u>after installation of</u> the DS/FF, exclusive of uncombined water vapor, for a period or aggregate period in excess of 2 minutes during any 1 hour, provided that at no time during the 2 minutes to exceed 20%	Approval No. 4B08052 310 CMR 7.06(1)(b)	
EU 3		Smoke	< No. 1 of the Chart <sup>(8)</sup> , except ≥ No. 1 to < No. 2 of the Chart for ≤ 6 minutes during any one hour, at no time to equal or exceed No. 2 of the Chart	310 CMR 7.06(1)(a)	
	Coal		≤ 1.23 lb/MMBtu per calendar day ≤ 1.21 lb/MMBtu per 30 day rolling period	Approval No. 4B91064	
	No. 6 Fuel Oil	S in Fuel	≤ 1.21 lb/MMBtu	Approval No. 4B88148 310 CMR 7.05(1)(a)1.	
	No. 2 Fuel Oil		≤ 0.17 lb/MMBtu	310 CMR 7.05(1)(a)2.	
	Coal	SO <sub>2</sub>	≤ 2.46 lb/MMBtu per calendar day ≤ 2.42 lb/MMBtu per 30 day rolling period	Approval No. 4B91064	
		Ash in Fuel	May exceed 9% by weight, dry basis	Approval No. 4B88148	

	Table 3 (continued)					
EU#	Fuel	Pollutant	Emissions Limit/Standard	Applicable Regulation and/or (Approval No.)		
	All Fuels	PM <sup>(22)</sup>	≤ 0.08 lb/MMBtu	Approval No. 4B88148		
			≤ 146.6 lb/yr <sup>(11)</sup> per calendar year, from the combustion from solid fuels or from re-burn of ash, calculated using the results of the stack tests required at 310 CMR 7.29(5)(a)3.d.ii.	Approval No. 4B08050 310 CMR 7.29(5)(a)3.c.		
EU 1 EU 2			(state-only requirement)			
EU 3	Coal	Hg	85% removal efficiency or ≤ 0.0075 lb/GWh ( <b>see Table 6A</b> )	Approval No. 4B08050		
			(state-only requirement)	310 CMR 7.29(5)(a)3.e.i. or ii.		
			95% removal efficiency or ≤ 0.0025 lb/GWh ( <b>see Table 6A</b> )	Approval No. 4B08050		
			(state-only requirement)	310 CMR 7.29(5)(a)3.f.i. or ii.		
	No. 6 Fuel Oil	NO <sub>x</sub>	≤ 0.27 lb/MMBtu <sup>(2)</sup>			
	No. 6 Fuel Oil and Natural Gas		≤ 0.27 lb/MMBtu <sup>(2)</sup>	Approval No. 4B94040 310 CMR 7.19(4)(a)		
	Natural Gas		≤ 0.20 lb/MMBtu <sup>(2)</sup>	010 GWIT 7.10(4)(d)		
		СО	≤ 100 ppm by volume, dry basis at 3% O <sub>2</sub> <sup>(2)</sup>	Approval No. 4B94040		
		DM (5)	≤ 0.03 lb/MMBtu			
		PM <sup>(5)</sup> PM <sub>10</sub> (7) PM <sub>2.5</sub> (7)	≤ 144.0 lb/hr	Approval No. 4B08052		
EU 4	All Fuels		≤ 630.7 tpy			
	All Fuels	Opacity	≤ 20%, except > 20 to ≤ 40% for ≤ 2 minutes during any one hour, at no time to exceed 40 percent	310 CMR 7.06(1)(b)		
		Smoke	< No. 1 of the Chart <sup>(8)</sup> , except ≥ No. 1 to < No. 2 of the Chart for ≤ 6 minutes during any one hour, at no time to equal or exceed No. 2 of the Chart	310 CMR 7 06(1)(a)		
	Start Up No. 6 Fuel Oil and/or Natural Gas <sup>(12)</sup>	S in Fuel	≤ 0.55 lb/MMBtu (for start up)	Approval No. 4B90187		

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Table 3 (continued)					
EU#	Fuel	Pollutant	Emissions Limit/Standard	Applicable Regulation and/or (Approval No.)	
EU 4	No. 6 Fuel Oil	S in Fuel	≤ 1.21 lb/MMBtu	Approval No. 4B90187 310 CMR 7.05(1)(b)1.	
		N in Fuel	≤ 0.4% by weight	Approval No. 4B90187	
	Used/Waste Oil & Non-Chlorinated Solvents <sup>(13)</sup>	N/A	Achieve and substantiate a minimum combustion efficiency of 99.5%	Approval No. 4B88066	
			See Special Terms and Conditions, Section 5.(H)	40 CFR Part 76	
			≤ 1.5 lb/MWh, calculated over any consecutive 12-month period, recalculated monthly (see Table 6A)	Approval No. 4B08050	
			(state-only requirement)	310 CMR 7.29(5)(a)1.a.	
			≤ 3.0 lb/MWh, calculated over any individual month (see Table 6A)	Approval No. 4B08050	
			(state-only requirement)	310 CMR 7.29(5)(a)1.b.	
EU 1 EU 2 EU 3 EU 4	All Fuels	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	
		$SO_2$	See <u>Special Terms and Conditions</u> , Section 5.G.	40 CFR Part 72	
		3O <sub>2</sub>	See <u>Special Terms and Conditions</u> , Section 5.H.	40 CFR Part 76	

	Table 3 (continued)					
EU#	Fuel	Pollutant	Emissions Limit/Standard	Applicable Regulation and/or (Approval No.)		
			≤ 6.0 lb/MWh, calculated over any consecutive 12-month period, recalculated monthly (effective 10/1/06) (see Table 6A)  (state-only requirement)	Approval No. 4B08050 310 CMR 7.29(5)(a)2.a.		
		SO <sub>2</sub>	≤ 3.0 lb/MWh, calculated over any consecutive 12-month period, recalculated monthly (effective 10/1/08) (see Table 6A)  (state-only requirement)	Approval No. 4B08050 310 CMR 7.29(5)(a)2.b.i.		
	All Fuels		≤ 6.0 lb/MWh, calculated over any individual month (effective 10/1/08) (see Table 6A) (state-only requirement)	Approval No. 4B08050 310 CMR 7.29(5)(a)2.b.ii.		
EU 1			≤ 1.21 lb/MMBtu <sup>(14)</sup>	Approval No. 4B90147		
EU 2 EU 3			(state-only requirement)	310 CMR 7.22		
EU 3			4 Unit Total – See <u>Special Terms and</u> <u>Conditions</u> , Section 5.(Z)	Approval No. 4B08052		
			≤ the historical actual emissions of 8,585,152 tpy <sup>(15,16)</sup> per calendar year (see Table 6A)  (state-only requirement)	Approval No. 4B08050 310 CMR 7.29(5)(a)5.a.		
		≤ 1,800 lb/MWh <sup>(16)</sup> in the calendar year (see Table 6A)  CO <sub>2</sub> (state-only requirement)  Hold CO <sub>2</sub> allowances available for	≤ 1,800 lb/MWh <sup>(16)</sup> in the calendar year (see Table 6A)	Approval No. 4B08050		
			,	310 CMR 7.29(5)(a)5.b.		
			Hold CO <sub>2</sub> allowances available for compliance <sup>(18,19)</sup>	Approval No. 4B08038		
			(state-only requirement)	310 CMR 7.70(1)(e)3.a.		
			CO <sub>2</sub> allowance transfers	Approval No. 4B08038		
			(state-only requirement)	310 CMR 7.70(7)		

Table 3 (continued)					
EU#	Fuel	Pollutant	Emissions Limit/Standard	Applicable Regulation and/or (Approval No.)	
		NO <sub>X</sub>	≤ 2.83 lb/MMBtu <sup>(17)</sup>	Approval No. 4B94073 310 CMR 7.19(8)(d)	
		S in Fuel	≤ 15 ppm sulfur content	4B08002	
EU 5 EU 6 EU 7	No. 2 Fuel Oil	СО	23 ppmvd @ 15% O <sub>2</sub> <sup>(21)</sup> (dry basis) <b>or</b> 70% CO reduction	40 CFR 63, Subpart ZZZZ	
EU 8		Opacity	≤ 20%, except 20 to ≤ 40% for ≤ 2 minutes during any one hour	310 CMR 7.06(1)(b)	
		Smoke	< No. 1 of the Chart <sup>(8)</sup> , except No. 1 to < No. 2 of the Chart for ≤ 6 minutes during any one hour	310 CMR 7.06(1)(a)	
		HAPs	N/A	40 CFR 63, Subpart ZZZZ	
EU 11	Coal	PM	Standard Operating and Maintenance Procedures Coal Handling and Measurement Systems	Approval No. 4B91064	
EU 12	Coal Fly Ash & Powder Activated Carbon	FIVI	N/A	40 CFR 60, Subpart Dc	
EU 14	N/A	PM PM <sub>10</sub> PM <sub>2.5</sub>	≤ 44.4 lb/hr (each unit) ≤ 194.5 tpy (each unit)	Approval No. 4B08052	
EU 15		PM <sub>10</sub> PM <sub>2.5</sub>	1,066 lb/24-hour block average (each unit)	PSD Permit No. 052-120-MA14	
			< 100 gallons/month of solvent (for each unit)	310 CMR 7.03(8)	
EU 16		VOC	The solvent used shall have a vapor pressure that does not exceed 1.0 mm Hg measured at 20°C	310 CMR 7.18(8)(a)	

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	Table 3 (continued)				
EU#	Fuel	Pollutant	Emissions Limit/Standard	Applicable Regulation and/or (Approval No.)	
			Submerged Fill	310 CMR 7.24(3)(a)	
EU 17		VOC	Stage I Vapor Recovery	310 CMR 7.24(3)(b)	
	N/A		Stage II Vapor Recovery	310 CMR 7.24(6)(a)2.	
Facility		Green House	NI/A	310 CMR 7.71	
Wide		Gas <sup>(20)</sup>	N/A	(state-only requirement)	

#### Table 3 Notes:

- (1) One-hour average, measured at the stack.
- (2) NO<sub>x</sub> and CO emission limits are based on a one calendar day averaging time.
- (3) For Emission Unit Nos. EU 1and EU 2:

$$\begin{array}{lll} PS_{NOx} & = & \frac{0.38 \text{ x } (HI_1) + 0.25 \text{ x } (HI_2) + 0.25 \text{ x } (HI_3) + 0.20 \text{ x } (HI_4)}{(HI_1 + HI_2 + HI_3 + HI_4)} \\ \\ PS_{NOx} & = & \text{prorated NO}_x \text{ emission limit when burning different fuels, lb/MMBtu} \\ HI_1 & = & \text{heat input for Coal, MMBtu} \\ HI_2 & = & \text{heat input for No. 6 Fuel Oil, MMBtu} \\ HI_3 & = & \text{heat input for No. 2 Fuel Oil, MMBtu} \\ HI_4 & = & \text{heat input for Natural Gas, MMBtu} \\ \end{array}$$

For Emission Unit No. EU 3:

$$\begin{array}{lll} PS_{NOx} & = & \frac{0.45 \text{ x } (HI_1) + 0.28 \text{ x } (HI_2) + 0.28 \text{ x } (HI_3) + 0.28 \text{ x } (HI_4)}{(HI_1 + HI_2 + HI_3 + HI_4)} \\ \\ PS_{NOx} & = & \text{prorated NO}_x \text{ emission limit when burning different fuels, lb/MMBtu} \\ HI_1 & = & \text{heat input for Coal, MMBtu} \\ HI_2 & = & \text{heat input for No. 6 Fuel Oil, MMBtu} \\ HI_3 & = & \text{heat input for No. 2 Fuel Oil, MMBtu} \\ HI_4 & = & \text{heat input for Natural Gas, MMBtu} \\ \end{array}$$

The PS<sub>NOx</sub> limit applies only when the combined annual heat input of all co-fired fuels (other than primary fuel) exceeds 5% of the total annual heat input of an EU, based on a twelve month rolling average.

- (4) Emission limits will be further restricted or remain the same upon MassDEP approval per <u>Special Terms and Conditions</u>, Section FF.
- (5) Per test methods contained in 40 CFR 60, Appendix A, Method 5, or other test methods acceptable to MassDEP.
- (6) Effective upon DS/FF commencing operation.
- (7) Per test methods contained in 40 CFR 51, Appendix M, Method 201 or 201A and Method 202, or other test methods acceptable to MassDEP.

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## Table 3 Notes (continued):

- (8) Chart means the Ringelmann Scale for grading the density of smoke, as published by the United States Bureau of Mines and as referred to in the Bureau of Mines Information Circular No. 8333, or any smoke inspection guide approved by MassDEP.
- (9) Emission limits will be further restricted or remain the same upon MassDEP approval per <u>Special Terms and Conditions</u>, Section HH.
- (10) The PM/PM<sub>10</sub>/PM<sub>2.5</sub> emission limits may be increased per Special Terms and Conditions, Section II.
- (11) Calculated per calendar year using the results of the stack tests required in 310 CMR 7.29(5)(a)3.d.ii. (state-only requirement)
- (12) In accordance with Approval No. 4B90187, Emission Unit No. EU 4 shall start up on natural gas, or No. 6 Fuel Oil having a maximum sulfur content of 0.55 lb/MMBtu heat release potential, or a mixture of both fuels.
- (13) In accordance with Approval No. 4B88066, Emission Unit Nos. EU 1, EU 2, EU 3, and EU 4 are approved to burn used/waste oil & non-chlorinated solvents provided that:
  - a. the permittee is in possession of the appropriate and active Recycling Permit(s) obtained from MassDEP; and.
  - b. the permittee abides by all conditions stated in such Recycling Permit(s), Plan Approvals, Operating Permit, and regulations concerning the handling, recycling and burning of used/waste oil & non-chlorinated solvents).
- (14) In accordance with 310 CMR 7.22(3)(b) and Approval No. 4B90147, compliance is based on averaging the emissions from the permittee's Brayton Point Station (Emission Unit Nos. EU 1, EU 2, EU 3, and EU 4) and Salem Harbor Station (Emission Unit Nos. EU 1, EU 2, EU 3, and EU4) facilities and qualified Demand Side Management (DSM) credits utilizing a one (1) calendar year averaging time. (state-only requirement).
- (15) If MassDEP has received a technically complete Plan Approval application under 310 CMR 7.02 for a new or re-powered electric generating unit subject to 40 CFR Part 72 at an affected facility prior to May 11, 2001, then the emissions from the new or re-powered unit may be included in the calculation of historical actual emissions. The calculation of historical actual emissions which includes emissions from a new or re-powered unit shall not include emission from any unit shut down or removed from operation at the affected facility that is included in the technically complete Plan Approval application pursuant to 310 CMR 7.02. Provisions for the quantification and certification of greenhouse gas (GHG) emission reductions, avoided emissions, or sequestered emissions for use in demonstrating compliance with the CO<sub>2</sub> emission limitation contained in 310 CMR 7.29 are contained in 310 CMR 7.00, Appendix B(7) Greenhouse Gas Credit Banking and Trading. (state-only requirement).
- (16) The indicated CO<sub>2</sub> emission standards shall not apply to the emissions of CO<sub>2</sub> that occur after December 31, 2008.
- (17) Emission Unit Nos. EU 5, EU 6, EU 7, and EU 8 shall comply with all requirements contained in 310 CMR 7.19(8)(c) or 7.19(8)(d) based on hours of operation per consecutive 12-month period. Compliance with emission limits/standards shall be based on a one-hour averaging time.
- (18) 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 in 310 CMR 7.70(1)(b). (state-only requirement).
- (19) 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). (state-only requirement).

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## Table 3 Notes (continued):

- (20) <u>Green House Gas</u> means any chemical or physical substance that is emitted into the air and that the Department may reasonably anticipate will cause or contribute to climate change including, but not limited to, CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, SF<sub>6</sub>, hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs).
- (21) Effective May 3, 2013. Not applicable during periods of startup.
- (22) The PM emission limit specified applies to EU 3 until the DS/FF is installed and operational on EU 3.

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

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

	Table 4			
EU#	Monitoring/Testing Requirements			
EU 2 EU 3 EU 4	In accordance with 310 CMR 7.14(2) and 310 CMR 7.19(13)(a)1., compliance with NO $_{x}$ emission limits/standards shall be demonstrated with Continuous Emissions Monitoring Systems (CEMS). The NO $_{x}$ CEMS shall meet the requirements specified in 310 CMR 7.19(13)(b). In accordance with the Acid Rain Program 40 CFR Part 72, monitor NO $_{x}$ emissions pursuant to 40 CFR Part 75 and use the procedures contained therein to gather and analyze data, provide quality assurance and quality control in order to determine compliance with 310 CMR 7.19, except that the missing data routine and bias adjustment factors contained in 40 CFR Part 75 need not be applied. Compliance with 40 CFR Part 75 shall constitute compliance with this requirement.			
	In accordance with 310 CMR 7.19(13)(a)1., compliance with CO emission limits/standards shall be demonstrated with Continuous Emissions Monitoring Systems (CEMS) as specified in 310 CMR 7.19(13)(b). CO emissions shall be monitored as specified in 310 CMR 7.19(13)(b)1., through 7.19(13)(b)12. Monitor CO emissions with CEMS certified in accordance with the performance specifications contained in 40 CFR Part 60, Appendix B and use the procedures contained in 40 CFR Part 60, Appendix F to comply, provide quality assurance and quality control.			
	In accordance with 310 CMR 7.14(2) and the Acid Rain Program 40 CFR Part 72,monitor SO <sub>2</sub> emissions with CEMS meeting the requirements of 40 CFR Part 75 and use the procedures contained therein to gather and analyze data, provide quality assurance and quality control. Compliance with 40 CFR Part 75 shall constitute compliance with this requirement.			
	In accordance with the Acid Rain Program 40 CFR Part 72, monitor flue gas volumetric flow with a CEMS flow monitoring system pursuant to 40 CFR Part 75 and use the procedures contained therein to gather and analyze data, provide quality assurance and quality control.			
	In accordance with Approval No. 4B90147, compliance with the Massachusetts Acid Rain Law 310 CMR 7.22 shall be demonstrated through monitoring of the quantity of each fuel burned, the heating value or heat input of each fuel burned and $SO_2$ emissions. $SO_2$ emissions and heat input of each fuel burned shall be monitored with CEMS that meet the requirements of 40 CFR Part 75.			
	In accordance with 310 CMR 7.14(2) and the Acid Rain Program 40 CFR Part 72, measure $O_2$ or carbon dioxide ( $CO_2$ ) in the flue gas with CEMS. The $O_2$ or $CO_2$ CEMS shall meet the requirements of 40 CFR Part 75 in order to convert $SO_2$ and $NO_x$ continuous emission monitoring data to units of the applicable emission standards as specified in Table 3. Compliance with 40 CFR Part 75 shall constitute compliance with this requirement.			
	In the event that CEMS are inoperative, comply with 40 CFR Part 75, Subpart D for CO <sub>2</sub> emissions and heat input missing data substitution.			
	In accordance with the Unit 1, Unit 2 and Unit 3 Standard Operating and Maintenance Procedures (SOMP), monitor Electrostatic Precipitator (ESP) performance (optimum amperage range as determined from the most recent stack testing) continuously to ensure compliance with PM emission limits. In accordance with the Unit 4 SOMP, monitor ESP performance (optimum amperage range as determined from the most recent stack testing) once per shift to ensure compliance with PM emission limits.			

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	Table 4 (continued)				
EU#	Monitoring/Testing Requirements				
1 2 EU 4 EU 4	In accordance with 310 CMR 7.14(2) and the Acid Rain Program 40 CFR Part 72 and 40 CFR Part 75, monitor opacity for Units 1, 2, 3, and 4 utilizing Continuous Opacity Monitoring Systems (COMS) to provide reasonable assurance of compliance with opacity standards. The opacity COMS shall meet Performance Specification 1 of 40 CFR Part 60, Appendix B. Compliance with 40 CFR Part 75 shall constitute compliance with this requirement. In accordance with 310 CMR 7.06 and 4B93011, visible emission compliance (opacity and smoke) for Units 1, 2, 3, and 4 shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9.				
	Opacity shall be determined in accordance with 40 CFR Part 60, Appendix A, Method 9 in the event of a COMS malfunction. This method shall also apply to any detached plumes.				
	In accordance with 310 CMR 7.04(2)(a), operate continuously and maintain in an accurate operating condition smoke density indicators equipped with audible alarms and recorders that signal the need for combustion equipment adjustment or repair when the smoke density is equal to or greater than No. 1 of the Chart. Compliance with 40 CFR Part 75 for opacity monitoring shall constitute compliance with this requirement.				
	In accordance with 310 CMR 7.19(13)(d)3., measure for each unit on a daily basis: type fuel(s) burned each day, heat content of each fuel, the total heating value of the fuel consumed for each day, the actual emission rate (for emissions units demonstrating compliance with CEMS), and the allowable emission rate for CO and $NO_x$ .				
	In accordance with 310 CMR 7.00: Appendix $C(9)(b)2$ ., monitor sulfur content of each new shipment of fuel received. Compliance with Approval Nos. 4B88148, 4B90187, 4B91064, and/or 310 CMR 7.05(1) for sulfur content of the fuel can be demonstrated through monitoring of $SO_2$ emissions with CEMS which meet the requirements of 40 CFR Part 75 or fuel analysis. The analysis of sulfur content of the fuel shall be in accordance with the applicable American Society for Testing Materials (ASTM) test methods or any other method approved by MassDEP and EPA. Fuel sulfur information may be provided by fuel suppliers.				
	In accordance with 310 CMR 7.00: Appendix C(9)(b)2., monitor ash content of each new shipment of solid fuel received. Compliance with Approval No. 4B88148 and/or 310 CMR 7.05(3) for ash content of the solid or solid/liquid fuel mixture can be demonstrated through fuel analysis. The fuel analysis or shipment certification of ash content of the fuel shall be in accordance with the applicable American Society for Testing Materials (ASTM) test methods or any other method approved by MassDEP and EPA. Fuel ash information may be provided by fuel suppliers.				
	In accordance with Approval No. 4B88066, monitor the quantities of used/waste oil & non-chlorinated solvents burned, and achieve and substantiate a combustion efficiency of 99.5 percent or greater.				
	In accordance with Approval No. 4B08052 and 310 CMR 7.04(4)(a), inspect and maintain fuel utilization facility in accordance with manufacturer's recommendations and test for efficient operation at least once in each calendar year. The results of said inspection, maintenance and testing and the date upon which it was performed shall be recorded and post conspicuously on or near each unit.				
	In accordance with 310 CMR 7.04(5), operate and maintain automatic viscosity controllers of a type approved by MassDEP to control the viscosity of No. 6 Fuel Oil to the burners.				
	In accordance with Approval No. 4B08050, monitor actual net electrical output, expressed in megawatt-hours. Actual net electrical output shall be provided for individual units as a facility total for all units included in the calculation demonstrating compliance.				

Table 4 (continued)					
EU#	Monitoring/Testing Requirements				
	In accordance with 310 CMR 7.19(13)(d)5., 310 CMR 7.19(13)(d)6., and Approval No. 4B90187, monitor nitrogen content of each new shipment of No. 6 Fuel Oil received, by one of the following methods:				
	(1) monitor through obtaining a certification from the fuel oil supplier that includes the following information:				
	a. the name of the fuel oil supplier;				
	b. the nitrogen content*of each oil shipment; and,				
EU 1 EU 2 EU 3 EU 4	c. the location where the sample was drawn for analysis to determine the nitrogen content of the fuel oil, specifically including whether the fuel oil was sampled as delivered to the permittee's facility or whether the sample was drawn from fuel oil in storage at the fuel oil supplier's or fuel oil refiner's facility or another location.				
	(2) sample and analyze the fuel oil for nitrogen content *immediately after the fuel oil tank is filled and before any fuel oil is combusted.				
	*The shipment certification or analysis of nitrogen content of the fuel oil shall be in accordance with the applicable American Society for Testing Materials (ASTM) test methods or any other method approved by MassDEP and EPA.				
	In accordance with Approval No. 4B08052 and 310 CMR 7.13, MassDEP may require additional emissions testing of the facility at any time to ascertain compliance with MassDEP's Regulations and/or this Operating Permit.				
	In accordance with Approval No. 4B08052, conduct an initial emission test to demonstrate that Units 1, 2, 3, and 4 are in compliance with PM, $PM_{10}$ , $PM_{2.5}$ , emission limits and to define PM, $PM_{10}$ , $PM_{2.5}$ , control equipment performance. The emission tests shall be conducted 180 days from the date of Approval No. 4B08052 (April 2, 2009).				
	In accordance with Approval No. 4B08052, the permittee shall ensure that the facility is constructed to accommodate the initial emissions (compliance) testing requirements contained herein. All emissions testing shall be conducted in accordance with MassDEP's <u>Guidelines for Source Emissions Testing</u> " and in accordance with the Environmental Protection Agency (EPA) reference test methods as specified in 40 CFR Part 60, Appendix A, or a method approved by MassDEP in writing.				
	In accordance with 310 CMR 7.32, monitor and test as required by the Massachusetts Clean Air Interstate Rule (CAIR). The permittee has submitted an application, under Transmittal No. W152786, in accordance with 310 CMR 7.32 and shall modify this Operating Permit upon approval of the application.				
	In accordance with 310 CMR 7.70(8)(a)1.a. and Approval No. 4B08038, install all monitoring systems necessary to monitor $CO_2$ mass emissions in accordance with 40 CFR Part 75, except equation G-1 in Appendix G shall not be used to determine $CO_2$ emissions under 310 CMR 7.70(8). (state-only requirement).				

	Table 4 (continued)				
EU#	Monitoring/Testing Requirements				
EU 1	In accordance with 310 CMR 7.70(8)(a)2.a. and Approval No. 4B08038, each $CO_2$ 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. (state-only requirement).				
	In accordance with 310 CMR 7.70(8)(h)1. and Approval No. 4B08038, submit to the Department or its agent net electrical output. (state-only requirement).				
EU 2 EU 3	In accordance with 310 CMR 7.70(8)(h)4.a. and Approval No. 4B08038, the billing meter shall record the electric output. (state-only Requirement).				
EU 4	In accordance with 310 CMR 7.70(8)(h)5.c. and Approval No. 4B08038, 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. (state-only requirement).				
	In accordance with Approval No. 4B08052, the permittee shall conduct initial emission compliance tests no later than 180 days after the following dates:				
	(a) The date Unit 1 SCR system has passed acceptance testing (vendor guarantee).				
	(b) The date Unit 1 SDA/FF and PAC systems passed acceptance testing (vendor guarantee).				
	(c) The date Unit 2 SDA/FF and PAC systems passed acceptance testing (vendor guarantee).				
	(d) The date Unit 3 SCR and ARP systems passed acceptance testing (vendor guarantee).				
	(e) The date Unit 3 PAC system passed acceptance testing (vendor guarantee).				
EU 1 EU 2	(f) The date Unit 3 DS/FF systems passed acceptance testing (vendor guarantee).				
EU 3	Initial emission tests shall be completed no more than one year after the initial operation with Unit 3 DS/FF.				
	The emission compliance test program shall comply with MassDEP's <u>Guidelines for Source Emission</u> <u>Testing</u> .				
	In accordance with Approval No. 4B08052, the permittee shall conduct an initial emission test to demonstrate that Emission Unit Nos. EU 1, EU 2, and EU 3 are in compliance with the emission limits (lb/hr, lb/MMBtu, ppmvd @3% $O_2$ , as applicable, and opacity) for $NO_x$ , PM, PM <sub>10</sub> , PM <sub>25</sub> , SO <sub>2</sub> , NH <sub>3</sub> , Hg and opacity (NH <sub>3</sub> not required for EU 2). With respect to Emission Unit No. 3, the permittee shall conduct an initial emission test to demonstrate compliance, for the same air contaminants as required for EU 1, EU 2, and EU 3, after SCR and PAC installation and again after the DS/FF installation. Testing shall be conducted between 90 and 100% of rated base load.				
EU 1 EU 3					

Table 4 (continued)				
EU#	Monitoring/Testing Requirements			
EU 1 EU 3	In accordance with Approval No. 4B08052, NH <sub>3</sub> CEMS data will initially be used as an operational tool. Compliance with the NH <sub>3</sub> emission limit will be determined during the initial compliance test, and by quarterly compliance testing thereafter, until MassDEP in writing approves otherwise, or until the NH <sub>3</sub> CEMS becomes a direct compliance monitor as defined in Section VIII(B)2 of Approval No. 4B08052. The NH <sub>3</sub> CEMS shall operate during NH <sub>3</sub> compliance testing and the test report shall be submitted to MassDEP within 45 days after completion of testing. Until the NH <sub>3</sub> CEM system becomes a direct compliance monitor the permittee on an annual basis, by March 1st, shall submit a report on the performance and relative accuracy of the NH <sub>3</sub> CEM systems along with a recommendation on the feasibility of their use as a compliance determination method.			
	In accordance with Approval No. 4B08052, the permittee shall conduct initial emission compliance tests to demonstrate that Unit 1 and Unit 3 are in compliance with the emission limits (lb/hr, lb/MMBtu, ppmvd as applicable, and opacity) for the pollutants listed below after SCR installation. Testing for the following pollutants shall be conducted at 100% of rated base load:			
	<ul> <li>(a) Nitrogen oxides (NO<sub>x</sub>)</li> <li>(b) Particulate matter (PM)</li> <li>(c) Sulfur dioxide (SO<sub>2</sub>)</li> <li>(d) Ammonia (NH<sub>3</sub>)</li> <li>(e) Opacity</li> </ul>			
	In accordance with Approval No. 4B08050, certify and operate each CEMS in accordance with 310 CMR 7.29(5)(a)3.g.(state-only requirement).			
	In accordance with PSD Permit No. 052-120-MA15, the owner/operator shall monitor heat input on an hourly basis using one of the methods prescribed in 40 CFR Part 75.			
	In accordance with PSD Permit No. 052-120-MA15, the owner/operator shall continuously monitor the FF pressure drop.			
	In accordance with PSD Permit No. 052-120-MA15, the owner/operator shall continuously monitor the exhaust temperature at the inlet of the FF.			
	In accordance with PSD Permit No. 052-120-MA15, the owner/operator shall continuously monitor the amount of reagent used by the DS.			
EU 3	In accordance with PSD Permit No. 052-120-MA15, the owner/operator shall ensure that all stack and exhaust ducts will accommodate the emission testing requirements stipulated in 40 CFR Part 60, Appendix A.			
	In accordance with PSD Permit No. 052-120-MA15, the owner/operator shall complete the following performance testing within 90 days after accepting the DS/FF equipment pursuant to the contract with its vendor or within 12 months of initial startup of the DS/FF, whichever is earlier, and at least once in every 12 month period thereafter.			
	a. Testing for filterable $PM_{10}$ and $PM_{2.5}$ emission limits shall be conducted in accordance with 40 CFR 51, Appendix M, Method 201 or 201A or other test methods approved by EPA.			
	b. Testing for total PM <sub>10</sub> and PM <sub>2.5</sub> emission limits shall be conducted in accordance with 40 CFR 51, Appendix M, Method or 201A and Method 202 or other test methods approved by EPA.			
	c. Testing for volumetric flow rate and velocity shall be conducted by 40 CFR 60. Appendix A, Method 2, 2F, or 2G.			

Table 4 (continued)					
EU#	Monitoring/Testing Requirements				
EU 3	In accordance with PSD Permit No. 052-120-MA15, the owner/operator shall notify EPA of the tests in writing and provide EPA with a test protocol at least 45 days prior to such tests. The test protocol shall include a detailed description of sampling port locations, sampling equipment, sampling and analytical procedures, and operating conditions for any such emissions testing. The owner/operator shall revise the plan upon EPA request.				
EU 1 EU 2 EU 3 EU 12 <sup>(1)</sup>	In accordance with Approval No. 4B08050 and 310 CMR 7.29(5)(a)3.c.i. and 310 CMR 7.29(5)(a) 3.d.iii., the portion of total annual mercury (Hg) emissions from combustion of solid fossil fuel in units subject to 40 CFR 72 located at or from re-burn of ash at an affected facility, determined using emissions testing at least every other calendar quarter from October 1, 2006 until Hg CEMS are used to demonstrate compliance with the standards contained in 310 CMR 7.29(5)(a)3.e. or f. and using mercury CEMS thereafter. Stack tests for Hg shall consist at a minimum of three runs at full load on each unit firing solid fossil fuel or ash according to a testing protocol acceptable to MassDEP. Stack tests for Hg, and certification and annual RATAs for mercury CEMS, shall determine total and particulate bound Hg (state-only requirement).				
	In accordance with Approval No. 4B08050 and 310 CMR 7.29(5)(a)3.c.ii.(i), when ash produced by an affected facility is used in Massachusetts as a cement kiln fuel, as an asphalt filler, or in any other high temperature processes that volatilize mercury (Hg), the Hg content of the utilized ash shall be measured weekly using a method acceptable to MassDEP (state-only requirement).				
	In accordance with Approval No. 4B08050 and 310 CMR 7.29(5)(a)3.e. and f., any person who owns, leases, operates or controls an affected facility which combusts solid fossil fuel or ash shall monitor a facility's average total mercury (Hg) removal efficiency or emission rate for those units combusting solid fossil fuel or ash. This will be based on a Hg CEMS using the methodology approved by Mass-DEP in the monitoring plan required under 310 CMR 7.29(5)(a)3.g. and shall be calculated on a rolling 12-month basis (state-only requirement).				
	In accordance with Approval No. 4B08050 and 310 CMR 7.29(5)(a)3.g.i., by January 1, 2008, any person who owns, leases, operates or controls an affected facility which combusts solid fossil fuel or ash shall install, certify, and operate CEMS to measure mercury (Hg) stack emissions from each solid fossil fuel or ash-fired unit at a facility subject to 310 CMR 7.29 (state-only requirement).				
	In accordance with Approval No. 4B08050 actual emissions shall be monitored for individual units and monitored as a facility total for all units included in the calculation demonstrating compliance. Actual emissions shall be monitored in accordance with 310 CMR 7.29(7)(b)1.b., c., and d. for Hg (state-only requirement).				
	In accordance with Approval No. 4B08050 and 310 CMR 7.29(5)(a)3.g.i., operate each continuous emission monitoring system at all times that the emission unit(s) is operating except for periods of CEMS calibrations checks, zero span adjustment, and preventive maintenance as described in the monitoring plan approved by MassDEP and as determined during certification. The CEMS shall be operated in accordance with 40 CFR 75 and 40 CFR 60.4106(b)(1) to measure mercury stack emissions from each solid fossil fuel or ash-fired unit subject to 310 CMR 7.29 (state-only requirement).				
	In accordance with the Applicability Determination and Approval dated March 31, 2008, the mercury (Hg) CEMS shall be deemed to be conditionally certified as of the date that each CEM passed the RATA. Further, compliance with 310 CMR 7.29 Hg requirements for the 1 <sup>st</sup> quarter 2008 shall be determined using valid data only ( <b>state-only requirement</b> ).				

Table 4 (continued)			
EU#	Monitoring/Testing Requirements		
EU 1 EU 2 EU 3 EU 4	In accordance with Approval No. 4B08050, actual emissions shall be monitored for individual units and monitored as a facility total for all units included in the calculation demonstrating compliance. Actual emissions shall be monitored in accordance with 40 CFR Part 75 for $SO_2$ , $CO_2$ , and $NO_x$ , and 310 CMR 7.29 for Hg. MassDEP shall detail the monitoring methodology for CO and $PM_{2.5}$ at the time regulations are promulgated by MassDEP for those parameters ( <b>state-only requirement</b> ).		
EU 12 <sup>(1)</sup>	In accordance with Approval No. 4B08052, the CEMS for CO shall comply with the linearity check and RATA frequencies as specified in 40 CFR 75 in conducting cylinder gas audits and RATAs ( <b>state-only requirement</b> ).		
EU 5 EU 6 EU 7 EU 8	In accordance with 310 CMR 7.19(13)(d)3., measure for each unit on a daily basis: type fuel(s) burned each day, heat content of each fuel, the total heating value of the fuel consumed for each day, and the allowable $NO_x$ and $CO$ emission rates.		
	In accordance with 310 CMR 7.00: Appendix C(9)(b)2., monitor sulfur content of each new shipment of fuel received. Compliance with 310 CMR 7.05(1) for sulfur content of the fuel can be demonstrated through fuel analysis or maintaining a shipping receipt from the fuel supplier. The analysis of sulfur content of the fuel shall be in accordance with the applicable American Society for Testing Materials (ASTM) test methods or any other method approved by MassDEP and EPA.		
	In accordance with 40 CFR 63, Subpart ZZZZ, effective May 3, 2013, the permittee shall conduct an initial performance test and must test every 8,760 hours of operation or 3 years, whichever comes first, to demonstrate compliance with emission standards.		
EU 10	In accordance with 310 CMR 7.24(3)(f), install, maintain, and properly operate a Stage I vapor recovery system.		
	In accordance with 310 CMR 7.24(6)(c), install and properly operate a certified Stage II vapor collection and control system.		
EU 11	In accordance with Approval No. 4B91064, monitor the operation of the Unloader-Stacker, coal pile dust control system, coal transfer to powerhouse and silos, and coal dust collection system operating parameters.		
	In accordance with Approval No. 4B08052, monitor the fly ash fuel feed rates to the ARP and record daily feed rates in tons per day.		
EU 12 <sup>(1)</sup>	In accordance with Approval No. 4B08052, fly ash feed to and fly ash product from the ARP shall be sampled on a calendar quarter basis and analyzed for higher heating value (HHV) in units of Btu/lb.		
	In accordance with Approval No. 4B08052, monitor the PAC feed rates to the ARP and record daily feed rates in tons per day.		
EU 14 EU 15	In accordance with Approval No. 4B08052 and PSD Permit No. 052-120-MA14, install and maintain non-resettable elapsed operating meters of the equivalent software to accurately indicate elapsed operating time for each circulating water pump servicing Cooling Tower 1 and 2.		
	In accordance with Approval No. 4B08052 and PSD Permit No. 052-120-MA14, monitor the circulating water flow (by use of ultrasonic flow meters and/or pump curves) to Cooling Tower 1 and 2, individually, and record gallons per day, per month, and per consecutive 12-month period.		

Table 4 (continued)			
EU#	Monitoring/Testing Requirements		
EU 14 EU 15	In accordance with Approval No. 4B08052 and PSD Permit No. 052-120-MA14, monitor and record Cooling Tower 1 and 2 circulating water or blowdown water total dissolved solids (ppm <sub>w</sub> ) using a continuous conductivity monitor.		
	In accordance with Approval No. 4B08052, if Cooling Tower 1 and 2 circulating water or blowdown water total dissolved solids ( $ppm_w$ ) is outside of the normal operating range, and determined by the permittee, a grab sample of the cooling tower circulating water shall be taken and analyzed within eight (8) hours to verify the accuracy of the conductivity monitors. If the conductivity monitors are simultaneously out of service, a daily grab sample of the cooling tower water shall be taken and analyzed within eight (8) hours to determine the total dissolved solids content of the circulating water.		
	In accordance with Approval No. 4B08052 and PSD Permit No. 052-120-MA14, Cooling Tower 1 and 2 circulating water or blowdown water redundant conductivity monitors shall be installed, operated and maintained in accordance with the manufacturer's recommended installation and operating and maintenance practices.		
	In accordance with Approval No. 4B08052, take a grab sample of Cooling Tower 1 and 2 circulating water on a calendar quarter basis and analyze within 24 hours to determine the circulating water total dissolved solids. Compare the conductivity monitors' accuracy to the grab sample results and recalibrate the conductivity monitor as necessary.		
	In accordance with PSD Permit No. 052-120-MA14, the permittee shall determine $PM_{2.5}$ emissions and $PM_{10}$ emissions using the following equation:		
	Cooling tower emissions in pounds/hour (lb/hr) = Total Circulating Water Flow Rate (gallons/minute) x 60 (minutes/hour) x Drift Rate (0.0005%) x Density of Water (8.57 pounds/gallon) x Total Dissolved Solids $(ppm_w)/1,000,000$		
EU 16	In accordance with 310 CMR 7.03(8), monitor the amount of solvent added to each of the degreaser units on a monthly basis.		
	In accordance with 310 CMR 7.24(3)(f)1., install, maintain and properly operate the vapor balance system.		
EU 17	In accordance with 310 CMR 7.24(3)(f)4., maintain all gauges, meters, or other specified testing devices in proper working order.		
	In accordance with 310 CMR 7.24(6)(b)1.c., once every seven days perform a weekly visual inspection of the Stage II system components to determine if such components are installed, functioning and unbroken as required by the terms and conditions of the system's currently applicable Executive Order. Each visual inspection shall include, but not be limited to, inspection of: nozzle boots and splash/vapor guards; hoses; hose retractors; coaxial adaptors, dry breaks, fill caps and gaskets, vapor recovery caps and gaskets, spill containment boxes and drain valves.		

	Table 4 (continued)			
EU#	Monitoring/Testing Requirements			
Facility Wide	In accordance with Approval No. 4B08052, the permittee must obtain written MassDEP approval of any emissions test protocol. Each protocol shall include a detailed description of sampling port locations, sampling equipment, sampling and analytical procedures, and operating conditions for any such emissions testing. Each emissions test protocol shall be submitted to MassDEP at least 45 days prior to commencement of testing of the facility. Each test protocol shall include a test matrix that will define emission control efficiencies and emission rates, as follows:    Emission Unit No. 1   SCR   NO <sub>x</sub> (upstream and downstream of SCR)   NH <sub>3</sub> (downstream of SCR)   SDA/FF and PAC   SO <sub>2</sub> (upstream and downstream of SDA/FF)   PM (upstream and downstream of SDA/FF)   Hg (upstream of PAC and downstream of SDA/FF)   Opacity   Emission Unit No. 2   SDA/FF and PAC   SO <sub>2</sub> (upstream and downstream of SDA/FF)   PM (upstream and downstream			
	SO <sub>2</sub> (upstream and downstream of SDA/FF) PM (upstream and downstream of FF) Hg (upstream of PAC and downstream of SDA/FF) Opacity  Emission Unit No. 3 SCR and ARP NO <sub>x</sub> (upstream and downstream of SCR) NH <sub>3</sub> (downstream of SCR) Opacity PAC Hg (upstream of PAC and downstream of R-C ESP) PM (downstream of R-C ESP) Opacity DS/FF SO <sub>2</sub> (upstream and downstream of DS/FF) PM (upstream and downstream of DS/FF) PM <sub>0</sub> (upstream and downstream of DS/FF) PM <sub>2.5</sub> (upstream and downstream of DS/FF) Hg (upstream of PAC and downstream of DS/FF) NH <sub>3</sub> (downstream of DS/FF) NH <sub>3</sub> (downstream of DS/FF) Opacity			
	Emission Unit No. 4 PM (upstream and downstream of ESP) PM <sub>10</sub> (upstream and downstream of ESP) PM <sub>2.5</sub> (upstream and downstream of ESP)			

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Table 4 (continued)						
EU#	Monitoring/Testing Requirements					
	In accordance with 310 CMR 7.13(1), any person owning, leasing, operating or controlling a facility for which MassDEP has determined that stack testing is necessary to ascertain compliance with Mass-DEP's regulations or design approval provisos shall cause such stack testing:					
	(a) to be conducted by a person knowledgeable in stack testing,					
	(b) to be conducted in accordance with procedures contained in a test protocol which has been approved by MassDEP, and					
Facility	(c) be conducted in the presence of a representative of MassDEP when such is deemed necessary.					
Wide	Conduct any other testing or testing methodology if and when requested by MassDEP or EPA.					
	Monitor operations such that information may be compiled for the annual preparation of a Source Registration/Emission Statement Form as required by 310 CMR 7.12.					
	In accordance with 310 CMR 7.71(1) and Appendix C(9), establish and maintain data systems or recordkeeping 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. (state-only requirement).					

## Table 4 Notes:

(1) The exhaust of EU 12 (ARP) will be directed to the windbox of Unit 3. If Unit 3 is not available, it will be directed to Unit 1. If neither Unit 3 nor Unit 1 are available, it will be shut down. Therefore, the exhaust of EU 12 will pass through the emission controls on Unit 3 or Unit 1, and that unit's CEMS will measure all emissions from EU 12. EU 12 will be equipped with a fabric filter baghouse to remove particulates in the exhaust gas prior to entering either the Unit 3 or Unit 1 windbox.

Table 4A				
Compliance Assurance Monitoring for Particulate Matter (PM)				
	EU 1	EU 2	EU 3	EU 4
Indicators	ΔP measured across the FF, and	ΔP measured across the FF, and	ESP Secondary Current	ESP Secondary Current
	Continuous opacity	Continuous opacity		
	1.0-11.0 inches of $H_2O$ , and	1.0-11.0 inches of $H_2O$ , and		
Indicator Range <sup>(1,2)</sup>	< 10% opacity increase over baseline, except > 20 to ≤ 40% for ≤ 2 minutes during any 1 hour, at no time to exceed 40%	< 10% opacity increase over baseline, except > 20 to ≤ 40% for ≤ 2 minutes during any 1 hour, at no time to exceed 40%	Current ≥ 8,159 mA	Current ≥ 4,475 mA
Frequency	Continuous	Continuous	Continuous	Once/8-hr shift
Data Collection	ΔP and opacity continuously monitored and recorded in the facility's data acquisition system	ΔP and opacity continuously monitored and recorded in the facility's data acquisition system	Secondary current cal- culated and recorded as a 1-hour average	Secondary current cal- culated and recorded as an 8-hour average
Corrective Action	Excursions trigger an inspection, corrective action, and a record keeping and reporting requirement	Excursions trigger an inspection, corrective action, and a record keeping and reporting requirement	Corrective action threshold occurs when current < 9,791 mA, triggering an alarm	Corrective action threshold occurs when current < 5,370 mA, triggering an alarm
Excursion <sup>(2)</sup>	$\Delta P$ outside the range 0.5-12.0 inches of H <sub>2</sub> O, and $\geq$ 10% increase over baseline opacity, or  The 3 <sup>rd</sup> and each subsequent 1-minute average in any hour when opacity > 20% but < 40%, or any 1-minute average during the hour that > 40%	$\Delta P$ outside the range 0.5-12.0 inches of H <sub>2</sub> O, and ≥ 10% increase over baseline opacity, or  The 3 <sup>rd</sup> and each subsequent 1-minute average in any hour when opacity > 20% but < 40%, or any 1-minute average during the hour that > 40%	Excursion occurs when current < 8,159 mA, triggering an alarm, inspection, corrective action, and reporting	Excursion occurs when current < 4,475 mA, triggering an alarm, inspection, corrective action, and reporting

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Table 4A (continued)		
Compliance Assurance Monitoring for Particulate Matter (PM)		
	EU 14 and EU 15	
	Requirements - Monitor the circulating water flow (use of pump curves is acceptable) and record gallons per day, gallons per month, and gallons per 12-month rolling period for each cooling tower. Monitor and record circulating water or blowdown water total dissolved solids (TDS) using continuous conductivity monitors.	
Indicators	<u>Measurement Approach</u> – Salinity of the circulating water or blowdown water is measured using a continuous conductivity meter. A redundant conductivity monitor is also installed. Circulating water flow is measured using an ultrasonic flow meter located on each circulating water pipe prior to the cooling towers. The lb/hr emission rate for particulate matter (PM) is then calculated in the data control system using the equation provided under Section II.7. of the Cooling Tower PSD Permit (Permit No. 051-120-MA14).	
Indicator Range	To assess the status of compliance with PM emission limits, the TDS concentration of the circulating water (or blowdown water) should be within the range of 0-48,000 ppm <sub>w</sub> over any 30-minute period, with an assumed flow rate equal to 360,000 gallons per minute (gpm), which is the design maximum flow rate.	
Frequency	1 hour averaging period.	
Data Collection	TDS are measured using the continuous conductivity monitors, along with the water flow rate to determine PM emission rates. Data are recorded in the data acquisition system.	
Corrective Action	Excursions trigger an inspection, corrective action, and a reporting requirement.	
Excursion	An excursion is defined as a TDS concentration of the circulating water or blowdown water that is not within the normal range of 0 to 48,000 ppm <sub>w</sub> over any 30-minute period, with a flow rate of 360,00 gallons per minute. Excursions trigger an inspection, corrective action, and a reporting requirement.	

## Key:

 $\Delta P$  = differential pressure ESP = electrostatic precipitator SDA = spray dryer absorber TDS = total dissolved solids gpm = gallons per minute

## **Table 4A Notes:**

- (1) The indicator range shown for EU 1 and EU 2 includes periods of startup/shutdown and accommodates low load operation during which the SDAs for these units may not be in service.
- (2) Baseline opacity is defined as the average opacity during the previous clock hour prior to the  $\Delta P$  going outside the range for EU 1 and EU 2.

	Table 5		
EU#	Recordkeeping Requirements		
	Record on a continuous basis emissions of $NO_x$ in accordance with the requirements of 310 CMR 7.19(13)(a)1., and 40 CFR Part 75.		
	In accordance with 40 CFR 60, 40 CFR 72, 40 CFR 75, and 40 CFR 76, comply with all applicable recordkeeping requirements.		
	Record on a continuous basis emissions of CO in accordance with the requirements of 310 CMR 7.19(13)(b)1., through 7.19(13)(b)12., 40 CFR Part 60, Appendix B, and 40 CFR Part 60 Appendix F.		
	Record on a continuous basis emissions of $SO_2$ in accordance with the requirements of 40 CFR Part 75.		
	Record on a continuous basis flue gas volumetric flow in accordance with the requirements of 40 CFR Part 75.		
	In accordance with Approval No. 4B90147 (Revised on March 4, 1996), compliance with the Massachusetts Acid Rain Law 310 CMR 7.22 shall be demonstrated by recording the quantity of each fuel burned, total heating value or total heat input of the fuel (or combined fuels burned) and $SO_2$ emissions. $SO_2$ emissions and total heat input for the fuel(s) burned shall be recorded with CEMS that meet the requirements of 40 CFR Part 75.		
	Record on a continuous basis $O_2$ or $CO_2$ in the flue gas in accordance with the requirements of 40 CFR Part 75.		
EU 1 EU 2 EU 3 EU 4	In accordance with the Unit 1, Unit 2 and Unit 3 SOMP, record ESP performance (amperage) continuously. In accordance with the Unit 4 SOMP, record ESP performance (amperage) once per shift.		
	Record on a continuous basis opacity in accordance with the requirements of 40 CFR Part 75 and 40 CFR Part 60, Appendix B.		
	Record opacity determined in accordance with EPA Test Method 9, as specified in 40 CFR Part 60, Appendix A in the event of a COMS malfunction. This method shall also apply to any detached plumes.		
	Maintain records of Smoke Density Indicator Recording Charts required by 310 CMR 7.04(2)(a) or COMS records required by 40 CFR Part 75 and 40 CFR Part 60, Appendix B.		
	In accordance with 310 CMR 7.19(13)(d)3., record for each unit on a daily basis the type(s) of fuel burned, heat content of each fuel, total heating value of the fuel consumed, actual emission rate (for emission units demonstrating compliance with CEMS), and allowable emission rate for CO and NO <sub>x</sub> .		
	In accordance with 310 CMR 7.00: Appendix C(9)(b)2., maintain SO <sub>2</sub> CEMS records or fuel analysis results used to demonstrate compliance with fuel sulfur content requirements.		
	In accordance with 310 CMR 7.00: Appendix C(9)(b)2., maintain fuel analysis results used to demonstrate compliance with fuel ash content requirements.		
	In accordance with 310 CMR 7.19(13)(d)7., maintain copies of all fuel supplier certifications or fuel oil analyses on site for a period of five years,		
	In accordance with Approval No. 4B88066, record the quantities of used/waste oil & non-chlorinated solvents burned.		

	Table 5 (continued)	
EU#	Recordkeeping Requirements	
	In accordance with 310 CMR 7.04(4)(a), maintain results of fuel utilization facility inspection, maintenance, and testing and the date upon which it was performed posted conspicuously on or near the facility.	
	In accordance with 310 CMR 7.19(13)(d)1., maintain a record of all measurements, performance evaluations, calibration checks, and maintenance or adjustments for each CEM.	
	In accordance with 310 CMR 7.19(13)(d)8., all records required by 310 CMR 7.19(13)(d), including computer retained and generated data, shall be kept in a permanently bound log book or any other form acceptable to MassDEP.	
	Maintain records required by 40 CFR Part 75, Subpart F.	
EU 1 EU 2 EU 3 EU 4	Maintain on-site, at all times, a copy of the Standard Operating and Maintenance Procedure (SOMP) for the subject emission units.	
	In accordance with Approval No. 4B08050, maintain a record of actual net electrical output for each of the preceding 12 months, expressed in megawatt-hours. Records of actual net electrical output shall be maintained for individual units and as a facility total for all units included in the calculation demonstrating compliance.	
	In accordance with 310 CMR 7.32, maintain records as required by the Massachusetts Clean Air Interstate Rule (CAIR). The permittee has submitted an application, under Transmittal No. W152786, in accordance with 310 CMR 7.32 and shall modify this Operating Permit upon approval of the application.	
	In accordance with 310 CMR 7.70(8)(e)1. and Approval No. 4B08038, comply with all recordkeeping and reporting requirements in 310 CMR 7.70(8)(e) and with all applicable recordkeeping and reporting requirements under 40 CFR 75.73, and with the requirements of 310 CMR 7.70(2)(a)5. (state-only requirement).	
	In accordance with 310 CMR 7.70(8)(h)6.a. and Approval No. 4B08038, 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. (state-only requirement).	
	In accordance with 310 CMR 7.70(8)(h)6.b. and Approval No. 4B08038, retain data used to monitor, determine, or calculate net generation for ten years from the date reported. ( <b>state-only require-ment</b> ).	
EU 1 EU 2 EU 3	In accordance with Approval No. 4B08050, certify and operate each CEMS in accordance with 310 CMR 7.29(5)(a)3.g. (state-only requirement).	
EU 3	In accordance with PSD Permit No. 052-120-MA15, the owner/operator shall maintain a record of all information used to show compliance with the terms and conditions of the PSD Permit (and the Operating Permit) for five years in a location accessible to representatives of EPA and MassDEP.	

Table 5 (continued)	
EU#	Recordkeeping Requirements
	In accordance with PSD Permit No. 052-120-MA15, the owner/operator shall maintain, at a minimum, the following information:
	a. Hourly heat input information obtained from 40 CFR Part 75 requirements.
	b. Supporting documentation and results from all emission performance tests.
	c. Number of hours the boiler operated for each day.
	d. Number of hours the FF operated for each day.
EU 3	e. Daily reagent usage in lbs/day.
	f. Continuous measurement of the pressure drop across the FF.
	g. Continuous measurement of the flue gas temperature at the inlet of the FF.
	h. For each day, the hourly filterable and total $PM_{10}$ and $PM_{2.5}$ emissions on an lbs/hr basis. Hourly emissions will be calculated by multiplying the results from the most recent stack test by the hourly heat input.
	In accordance with PSD Permit No. 052-120-MA15, the owner/operator shall comply with any request by EPA to supply any of the above records.
EU 1 EU 2 EU 3 EU 4 EU 12 <sup>(1)</sup>	In accordance with Approval No. 4B08050, maintain a record of actual emissions for each regulated pollutant for each of the preceding 12 months. Actual emissions shall be recorded for individual units and a facility total for all units included in the calculation demonstrating compliance. Actual emissions provided under this Section shall be recorded in accordance with 40 CFR Part 75 for $SO_2$ , $CO_2$ , and $NO_x$ , and 310 CMR 7.29 for Hg. MassDEP shall detail the monitoring methodology for CO and $PM_{2.5}$ at the time regulations are promulgated for those parameters (state-only requirement).
	In accordance with Approval No. 4B08050, maintain a record of the resulting output-based emission rates for each of the preceding 12 months, and each of the 12 consecutive rolling month time periods, expressed in pounds per megawatt-hour. Output-based emission rates shall be provided for individual emission units and as a facility total for all units included in the calculation demonstrating compliance.
	In accordance with Approval No. 4B08050, keep all measurements, data, reports and other information required by 310 CMR 7.29 onsite for a minimum of five (5) years, or any other period consistent with the facility's Operating Permit (state-only requirement).
EU 1 EU 2 EU 3 EU 12 <sup>(1)</sup>	In accordance with Approval No. 4B08052, the permittee shall maintain on site for five (5) years all records of output from and continuous monitors for flue gas emissions and fuel consumption, and shall make these records available to MassDEP upon request.
	In accordance with Approval No. 4B08052, the permittee shall maintain a log to record upsets or failures associated with the emission control systems.

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Table 5 (continued)		
EU#	Recordkeeping Requirements	
	In accordance with Approval No. 4B08052, a recordkeeping system for the facility shall be established and maintained on site by the permittee. All such records shall be maintained up-to-date such that year-to-date information is readily available for MassDEP examination upon request. The record-keeping log/system, including any other "credible evidence", shall be kept on site for a minimum of five (5) years. Recordkeeping shall, at a minimum, include:	
	(a) Compliance records sufficient to demonstrate that emissions from the facility have not exceeded emission limits contained herein. Such records shall include, but are not limited to, fuel usage rate, emissions test results, and monitoring equipment data and reports.	
	(b) <u>Maintenance</u> : A record of routine maintenance activities performed on the 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.	
	(c) <u>Malfunctions</u> : A record of all malfunctions on the emission 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 equipment was returned to compliance.	
	In accordance with Approval No. 4B08050 and 310 CMR 7.29(5)(a)3., keep records of required mercury (Hg) stack testing and ash testing ( <b>state-only requirement</b> ).	
EU 1 EU 2 EU 3 EU 12 <sup>(1)</sup>	In accordance with Approval No. 4B08050 and 310 CMR 7.29(5)(a)3.g., maintain a record of all measurements, performance evaluations, calibration checks, and maintenance or adjustments for each mercury (Hg) CEMS (state-only requirement).	
	In accordance with Approval No. 4B08050 and 310 CMR 7.29(7)(e), for units that apply carbon or other sorbent injection for mercury (Hg) control, the carbon and other sorbent records shall be kept until such time as mercury CEMS are installed in that unit (state-only requirement).	
	In accordance with Approval No. 4B08050 and 310 CMR 7.29(7)(i), any person subject to 310 CMR 7.29(5)(a)3. shall submit the results of all mercury (Hg) emissions, monitor, and optimization test reports, along with supporting calculations, to MassDEP within 45 days after completion of such testing (state-only requirement).	
	In accordance with Approval No. 4B08050, maintain a record of actual emissions of mercury (Hg) for each of the preceding 12 months. Actual emissions shall be recorded for individual units and as a facility total for all units included in the calculation demonstrating compliance. Actual emissions shall be recorded in accordance with 310 CMR 7.29(7)(b)1.b., c., and d. for Hg (state-only requirement).	
	In accordance with Approval No. 4B08052, maintain ARP daily records including operating hours, fly ash feed in tons per day, PAC feed in tons per day, and cubic feet of natural gas burned per day.	
	In accordance with Approval No. 4B08052, maintain ARP calendar month records including number of operating hours, natural gas heat input, PAC heat input, fly ash heat input, and average total heat input (MMBtu/hr) during operating hours.	
	In accordance with the Applicability Determination and Approval dated March 31, 2008, the mercury (Hg) CEMS shall be deemed to be conditionally certified as of the date that each CEM passed the RATA. Further, compliance with 310 CMR 7.29 Hg requirements for the 1 <sup>st</sup> quarter 2008 shall be determined using valid data only ( <b>state-only requirement</b> ).	

	Table 5 (continued)		
EU#	Recordkeeping Requirements		
	In accordance with 310 CMR 7.19(13)(d)3., record for each unit on a daily basis: type fuel(s) burned each day, heat content of each fuel, the total heating value of the fuel consumed for each day, and the allowable NOx and CO emission rates.		
EU 5	In accordance with 310 CMR 7.00: Appendix C(9)(b)2., maintain fuel analysis results or fuel purchase receipts used to demonstrate compliance with fuel sulfur content requirements.		
EU 6 EU 7	In accordance with Approval No. 4B94073 and 310 CMR 7.19(8)(d)3., record the hours of operation of each emission unit.		
EU 8	In accordance with 310 CMR 7.19(13)(d)8., all records required by 310 CMR 7.19(13)(d), including computer retained and generated data, shall be kept in a permanently bound log book or any other form acceptable to MassDEP.		
	In accordance with 40 CFR 63, Subpart ZZZZ, keep a record of the applicability determination on site at the facility for a period of 5 years after the determination (40 CFR 63.10(b)(3)).		
	In accordance with 40 CFR 63, Subpart ZZZZ, effective May 3, 2013, maintain records of hours of operation.		
	In accordance with 40 CFR 63, Subpart ZZZZ, effective May 3, 2013, maintain records of the manufacturer's recommended maintenance procedures for the closed crankcase ventilation system or open crankcase filtration system, and of maintenance performed on the system.		
	In accordance with 310 CMR 7.24(3)(f):		
	1. Install, maintain and properly operate the vapor balance system;		
	2. Maintain records of all maintenance performed, including the type of maintenance performed, and the date maintenance was performed; and,		
EU 10	3. Maintain records of all malfunctions, including the type of malfunction, the date the malfunction was observed, and the date the malfunction was repaired; and,		
	4. Maintain all gauges, meters, or other specified testing device in proper working order; and,		
	<ol><li>Maintain records of the daily throughput of any organic material with a true vapor pressure of 1.5 psia or greater under actual storage conditions.</li></ol>		
	In accordance with Approval No. 4B08052, the permittee shall maintain records of the daily fly ash feed to the ARP in tons per day.		
EU 12 <sup>(1)</sup>	In accordance with Approval No. 4B08052, the permittee shall maintain calendar quarter records of the fly ash heat input to, and fly ash product from, the ARP in units of Btu/lb.		
	In accordance with Approval No. 4B08052 and 40 CFR 60, Subpart Dc, meet the recordkeeping requirements of Section 60.48c(g) and the general provisions of 40 CFR 60.7.		
EU 16	In accordance with 310 CMR 7.03(8), maintain records of the amounts of solvent added to each of the degreaser units on a monthly basis.		

	Table 5 (continued)
EU#	Recordkeeping Requirements
EU 17	In accordance with 310 CMR 7.24(3)(f), properly operate the vapor balance system; maintain records of all maintenance performed, including the type of maintenance performed and date the maintenance was performed; maintain records of all malfunctions, including the type of malfunction, the date the malfunction was observed, and the date the malfunction was repaired; and, maintain records of the daily throughput of any organic material with a true vapor pressure of 1.5 psia or greater during actual storage conditions.
	In accordance with 310 CMR 7.24(6)(b)3., maintain all Stage II system maintenance records on site, in a centralized location, for the most recent rolling twelve-month period. Such records may be either hard copy documents or electronic documents, provided that a hard copy of the electronic documents shall be printed on-site immediately upon request. Stage II system maintenance records shall include:
	(a) All of the facility's weekly inspection checklists for the prior twelve-month period, identifying:
	<ul> <li>the date each weekly visual inspection was performed and the signature of the person who performed the visual inspection;</li> </ul>
	<ul><li>(ii) any Stage II system component determined to be incorrectly installed, non-functioning or broken;</li></ul>
	<ul><li>(iii) whether the incorrectly installed, non-functioning or broken component was immediately repaired, taken out of service and repaired within 14 days, isolated, or the facility stopped dispensing motor vehicle fuel and all fuel dispensers were taken out of service;</li></ul>
	(iv) the date the incorrectly installed, non-functioning or broken components identified in (iii) above were repaired.
	(b) A copy of compliance testing company test results for all Stage II compliance tests during the prior 12-month period.
	(c) A copy of the Stage II system's most recent Annual In-Use Compliance Certification.
Facility Wide	Maintain the test results of any stack testing performed in accordance with 310 CMR 7.13(1) or of any other testing or testing methodology required by MassDEP or EPA.
	Keep copies of Source Registration/Emission Statement Forms submitted annually to MassDEP as required per 310 CMR 7.12(3)(b). Copies shall be retained for five years from the date of submittal.
	In accordance with 310 CMR 7.00: Appendix C(10)(b), maintain records of all monitoring data and supporting information required by this operating permit on site for five (5) years from the date of the monitoring sample, measurement, report or initial operating permit application.
	In accordance with Approval No. 4B08052, the use of wastewater from the Somerset POTW that contains minor amounts of VOCs is subject to the recordkeeping requirements contained in 310 CMR 7.02(2)(d).

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Table 5 (continued)				
EU#	Recordkeeping Requirements			
Facility Wide	In accordance with Approval No. 4B08052, the lime, fly ash and PAC material handling and storage systems are subject to the recordkeeping requirements contained in 310 CMR 7.03(6).			
	In accordance with 310 CMR 7.71(6)(b). and (c)., retain at the facility for five years and make available to the Department upon request copies of the documentation of the methodology and data used to quantify emissions. (state-only requirement).			

### Table 5 Notes:

(1) The exhaust of EU 12 (ARP) will be directed to the windbox of Unit 3. If Unit 3 is not available, it will be directed to Unit 1. If neither Unit 3 nor Unit 1 are available, it will be shut down. Therefore, the exhaust of EU 12 will pass through the emission controls on Unit 3 or Unit 1, and that unit's CEMS will measure all emissions from EU 12. EU 12 will be equipped with a fabric filter baghouse to remove particulates in the exhaust gas prior to entering either the Unit 3 or Unit 1 windbox.

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	Table 6				
EU#	Reporting Requirements				
EU 1 EU 2	In accordance with 310 CMR 7.14(2) and 310 CMR 7.19(13)(d)2., submit CEM Excess Emission Reports for each calendar quarter by the thirtieth (30th) day of April, July, October, and January covering the previous calendar periods of January through March, April through June, July through September, and October through December, respectively. Such reports shall contain visible emissions (opacity and/or smoke exclusive of uncombined water) and emission rates of $NO_x$ , CO and $SO_2$ in excess of the emission limits/standards contained in Table 3. Start-up periods shall be reported in accordance with "The Department Response to Comments on Proposed Amendments to 310 CMR 7.00: RACT for $NO_x$ ", dated June 1994. Start-up periods are not included in the calendar day $NO_x$ and CO emission rate compliance averaging time as long as the mass emission rate, in pounds of $NO_x$ and/or CO per hour, from the emission unit does not exceed the mass emission rate that would occur at the maximum firing rate. Start-up begins with when the first burner is lit and ends when all available or required burners are in service. The permittee shall notify MassDEP if start-ups last longer than twenty-four (24) hours.				
	In accordance with 40 CFR Part 75, submit to the USEPA Acid Rain Division all $NO_x$ emissions and operating information for each calendar quarter of each year in accordance with the standards specified in 40 CFR Part 75, Subpart G. The submission must be in an electronic format that meets the requirements of EPA's Electronic Data Reporting (EDR) convention. Quarterly reports must contain $NO_x$ emissions in pounds per hour for every hour, and cumulative quarterly and seasonal $NO_x$ emissions data in pounds, in a format consistent with the EDR convention.				
EU 3 EU 4	In accordance with 40 CFR 60, 40 CFR 72, and 40 CFR 75, comply with all applicable reporting requirements.				
	Notification of QA testing is required for Relative Accuracy Test Audits (RATAs) and AppendixE/LME (Low Mass Emission) unit tests. Notification must be made by mail or electronic mail (e-mail) at least 21 days prior to the scheduled test date to the EPA as required by 40 CFR 75.61, to MassDEP Head-quarters, Bureau of Waste Prevention, Division of Planning and Evaluation, and to the MassDEP Regional office, Attn: BWP Permit Chief. If tests must be rescheduled, 24 hours notice must be given, as specified in 40 CFR 75.61(a)(5).				
	A previously approved RATA protocol may be referenced at the time of test notification provided that the referenced protocol was completed in accordance with current 40 CFR Part 75 procedures, addresses all previous MassDEP protocol comments to the satisfaction of the MassDEP, and none of the information has changed. If a revised protocol must be submitted, it must be submitted at least 21 days prior to the scheduled test date.				
	A hardcopy of the QA RATA or Appendix E/LME test results must be submitted to both the DEP Lawrence and DEP Regional offices within 45 days of completion of tests. The electronic results must be submitted in the quarterly electronic data report (EDR).				
	Results from QA daily calibrations, quarterly linearity checks and Appendix D Fuel flowmeter tests must be reported electronically in the EDR submittal for the quarter in which the testing occurs.				

	Table 6 (continued)				
EU#	Reporting Requirements				
	Submit SO <sub>2</sub> emission reports to verify compliance with the Massachusetts Acid Rain Law 310 CMR 7.22 for each calendar quarter by the thirtieth (30th) day of April, July, October, and January covering the previous calendar periods of January through March, April through June, July through September, and October through December, respectively. Such reports shall contain, on a quarterly basis, for each EU defined in the permittee's SO <sub>2</sub> compound emission rate averaging system encompassing the Salem Harbor Station and Brayton Point Station facilities: total heating value or heat input of fuel consumed in BTUs and mass SO <sub>2</sub> emission rate in pounds. The quarterly report shall also contain system-wide totals of the latter information for the permittee's entire SO <sub>2</sub> compound emission rate averaging system encompassing the Salem Harbor Station and Brayton Point Station facilities. The fourth quarterly report shall contain an annual summary of the reportable information.				
	In accordance with Approval No. 4B88066, report the quantity of used/waste oil & non-chlorinated solvents burned for each calendar year; to include all waste oil, used and unused from the fuel system, lubricating sources, floor drains, heater drains and drains from fill hose and possible spills, inclusive of combined water.				
	In accordance with 310 CMR 7.19(13)(d)9., submit compliance records within ten (10) days of written request by MassDEP or EPA.				
	Report as required by 40 CFR Part 75, Subpart G.				
EU 1 EU 2 EU 3 EU 4	In accordance with Approval No. 4B08050, MassDEP may verify the facility's compliance status by whatever means necessary, including but not limited to requiring the affected facility to submit information on actual electrical output of company generating units provided by the New England Independent System Operator (ISO), or any successor thereto.				
	In accordance with Approval No. 4B08050, by January 30 of the year following the earliest applicable compliance date for the affected facility under 310 CMR 7.29(6)(c), and January 30 of each calendar year thereafter, the company representative responsible for compliance shall submit a compliance report to MassDEP demonstrating the facility's compliance status with the emission standards contained in 310 CMR 7.29(5)(a) and in an approved Emission Control Plan. The report shall demonstrate the facility's compliance status with applicable monthly emission rates for each month of the previous calendar year, and each of the twelve previous consecutive 12-month periods. The compliance report shall include all statements listed in 310 CMR 7.29(7)(b)4. (state-only requirement).				
	In accordance with Approval No. 4B08052, at least 60 days prior to commencing construction of the CEM/COM systems, protocols and plans for the new CEM/COM systems, including NH <sub>3</sub> CEMS, and supporting documentation, shall be submitted to MassDEP for review and approval.				
	In accordance with Approval No. 4B08050, certify and operate each CEMS in accordance with 310 CMR 7.29(5)(a)3.g. (state-only requirement).				
	In accordance with 310 CMR 7.32, submit reports as required by the Massachusetts Clean Air Interstate Rule (CAIR). the permittee has submitted an application, under Transmittal No. W152786, in accordance with 310 CMR 7.32 and shall modify this Operating Permit upon approval of the application.				
	In accordance with 310 CMR 7.70(2)(a)5. and Approval No. 4B08038, each submission under the $CO_2$ Budget Trading Program shall be submitted, signed, and certified by the $CO_2$ authorized account representative. (state-only requirement).				

	Table 6 (continued)				
EU#	Reporting Requirements				
EU 1 EU 2 EU 3 EU 4	In accordance with 310 CMR 7.70(4)(a) and Approval No. 4B08038, for each control period in which a CO <sub>2</sub> budget source is subject to the CO <sub>2</sub> requirements of 310 CMR 7.70(1)(e)3., submit to the Department by March 1 following the relevant control period, a compliance certification report <b>to MassDEP</b> , <b>Bureau of Waste Prevention</b> , <b>1 Winter Street</b> , <b>Boston</b> , <b>MA 02108</b> , <b>Attn: CO<sub>2</sub> 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> ).				
	In accordance with 310 CMR 7.70(6)(c) and Approval No. 4B08038, following the establishment of a $CO_2$ Allowance Tracking System account, all submissions to the Department or its agent pertaining to the account, shall be made only by the $CO_2$ authorized account representative for the account. (state-only requirement).				
	In accordance with 310 CMR 7.70(8)(d) and Approval No. 4B08038, the CO <sub>2</sub> authorized account representative shall submit written notifications to the Department and the Administrator in accordance with 40 CFR 75.61. (state-only requirement).				
	In accordance with 310 CMR 7.70(8)(e)1. and Approval No. 4B08038, comply with all recordkeeping and reporting requirements in 310 CMR 7.70(8)(e), the applicable recordkeeping and reporting requirements under 40 CFR 75.73 and with the requirements of 310 CMR 7.70(2)(a)5. (state-only requirement).				
	In accordance with 310 CMR 7.70(8)(e)4.a.i. and Approval No. 4B08038, report the CO <sub>2</sub> mass emissions data for the CO <sub>2</sub> budget unit that commenced commercial operation before July 1, 2008, in an electronic format prescribed by the Administrator, unless otherwise prescribed by the Department, for each calendar quarter beginning with the calendar quarter covering January 1, 2009 through March 31, 2009. (state-only requirement).				
	In accordance with 310 CMR 7.70(8)(e)4.c. and Approval No. 4B08038, submit to the Department or its agent a compliance certification in support of each quarterly report. (state-only requirement).				
	In accordance with 310 CMR 7.70(8)(h)6.a. and Approval No. 4B08038, 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. (state-only requirement).				
	In accordance with 310 CMR 7.70(8)(h)6.c. and Approval No. 4B08038, submit annual output reports in a spreadsheet both electronically and in hardcopy by March1 for the immediately preceding calendar year to MassDEP, Bureau of Waste Prevention, 1 Winter Street, Boston, MA 02108, Attn: CO <sub>2</sub> Budget Trading Program or the Department's agent. (state-only requirement).				
EU 1 EU 2 EU 3 EU 4 EU 12 <sup>(1)</sup>	In accordance with Approval No. 4B08050 and 310 CMR 7.29(7), by January 30 of the year following the earliest applicable compliance date and January 30 of each calendar year thereafter the facility shall submit a report to MassDEP demonstrating compliance with the emission standards contained in 310 CMR 7.29(5)(a) and in an approved emission control plan (ECP). For the mercury standards at 310 CMR 7.29(5)(a)3.c., the compliance reports due January 30, 2007 and 2008 shall include the quarterly emissions for each quarter beginning October 1, 2006. For the mercury standards at 310 CMR 7.29(5)(a)3.c., e., and f., the compliance report due January 30, 2009 and each report thereafter shall demonstrate compliance with any applicable annual standard for the previous calendar year and with any applicable 12-month standard for each of the 12 previous consecutive 12-month periods (state-only requirement).				

	Table 6 (continued)			
EU#	Reporting Requirements			
EU 1 EU 3	In accordance with Approval No. 4B08052, NH <sub>3</sub> CEMS data will initially be used as an operational tool. Compliance with the NH <sub>3</sub> emission limit will be determined during the initial compliance test, and by quarterly compliance testing thereafter, until MassDEP in writing approves otherwise, or until the NH <sub>3</sub> CEMS becomes a direct compliance monitor as defined in Section VIII(B)2 of Approval No. 4B08052. The NH <sub>3</sub> CEMS shall operate during NH <sub>3</sub> compliance testing and the test report shall be submitted to MassDEP within 45 days after completion of testing. Until the NH <sub>3</sub> CEM system becomes a direct compliance monitor the permittee on an annual basis, by March 1st, shall submit a report on the performance and relative accuracy of the NH <sub>3</sub> CEM systems along with a recommendation on the feasibility of their use as a compliance determination method.			
	In accordance with PSD Permit No. 052-120-MA15, the owner/operator shall submit all notifications and reports to the address below.			
	Air Compliance Clerk EPA-New England, Region 1 5 Post Office Square Suite 100 (OES04-2) Boston, MA 02109-3912			
	In accordance with PSD Permit No. 052-120-MA15, the owner/operator shall submit to EPA Region 1 semi-annual reports postmarked by January 30 <sup>th</sup> and July 30 <sup>th</sup> of each year. Each semi-annual report shall contain the following information from the prior calendar 6-month period:			
EU 3	Rolling 12-month filterable and total PM emission rates using data collected in accordance with Section V.2. of the PSD Permit;			
	b. Date and time of all emission limit and permit condition violations; and			
	c. All equipment malfunctions and corrective actions.			
	In accordance with PSD Permit No. 052-120-MA15, within 45 days after the completion of emissions tests, a preliminary report of the test results shall be submitted to EPA. The test report shall indicate:			
	a. The filterable and total $PM_{10}$ and $PM_{2.5}$ emissions in lbs/MMBtu and lbs/hr.			
	b. The heat input for boiler No. 3 in MMBtu/hr.			
	In accordance with PSD Permit No. 052-120-MA15, the owner/operator shall submit the final emissions test report(s) to EPA Region 1 within 60 days after the completion of each of the tests.			
EU 1 EU 2 EU 3 EU 12 <sup>(1)</sup>	In accordance with Approval No. 4B08050 and 310 CMR 7.29(5)(a)3.d.iii., the results of each stack test for mercury (Hg) shall be reported to MassDEP within 45 days after conducting each stack test (state-only requirement).			
	In accordance with Approval No. 4B08050 and 310 CMR 7.29(5)(a)3.c.ii.(iv), when ash produced by an affected facility is used in Massachusetts as a cement kiln fuel, as an asphalt filler, or in other high temperature processes that volatilize mercury (Hg), a proposal shall be submitted for MassDEP approval at least 45 days prior to such use, or at least 45 days prior to October 1, 2006, whichever is later, detailing the proposed measurement methods to be used to comply with 310 CMR7.29(5)(a) 3.c.ii.(i) and (ii) (state-only requirement).			

	Table 6 (continued)			
EU#	Reporting Requirements			
	In accordance with Approval No. 4B08050 and 310 CMR 7.29(5)(a)3.g., submit a CEMS monitoring plan for MassDEP approval at least 45 days prior to equipment installation including, but not limited to, a sample calculation demonstrating compliance with the emission limits using conversion factors from 40 CFR Part 60 or Part 75 or other proposed factors ( <b>state-only requirement</b> ).			
	In accordance with Approval No. 4B08050 and 310 CMR 7.29(5)(a)3.g., submit for MassDEP approval a CEMS certification protocol at least 21 days prior to certification testing for the CEMS, and any proposed adjustment to the certification testing at least seven (7) days in advance ( <b>state-only requirement</b> ).			
	In accordance with Approval No. 4B08050 and 310 CMR 7.29(5)(a)3.g., submit a certification report within 45 days of the completion of the certification test for MassDEP approval ( <b>state-only require-ment</b> ).			
EU 1 EU 2 EU 3 EU 12 <sup>(1)</sup>	In accordance with Approval No. 4B08050 and 310 CMR 7.29(5)(a)3.g.i.(xii)., submit to the appropriate MassDEP regional office by the 30 <sup>th</sup> day of April, July, October, and January, a report detailing any of the following that have occurred within the previous calendar quarter. In the event none of the following items have occurred, such information shall be stated in the report ( <b>state-only require-ment</b> ):			
	(a) The date and time that any mercury CEMS stopped collecting valid data and when it started to collect valid data again, except for zero and span checks; and,			
	(b) the nature and the date of system repairs.			
	In accordance with Approval No. 4B08050 and 310 CMR 7.29(7)(a), for the mercury (Hg) standards at 310 CMR 7.29(5)(a)3.c., the compliance reports due January 30, 2007 and 2008 shall include the quarterly emissions for each quarter beginning October 1, 2006. For the mercury standards at 310 CMR 7.29(5)(a)3.c., e., and f., the compliance report due January 30, 2009 and each report thereafter shall demonstrate compliance with any applicable annual standard for the previous calendar year and with any applicable 12-month standard for each of the 12 previous consecutive 12-month periods. The compliance report shall contain items listed in 310 CMR 7.29(7)(b) (state-only requirement).			
	In accordance with Approval No. 4B08050 and 310 CMR 7.29(7)(g), any person subject to 310 CMR 7.29(5)(a)3 shall submit the results of all mercury emissions, monitor, and optimization test reports, along with supporting calculations, to MassDEP within 45 days after completion of such testing (state-only requirement).			
	Submit to the appropriate MassDEP regional office a compliance report in accordance with 310 CMR 7.29(7)(b) (state-only requirement).			

Table 6 (continued)				
EU#	Reporting Requirements			
	In accordance with Approval No. 4B08052, the permittee shall notify MassDEP in writing within 10 days after each activity listed below occurs:			
	(a) The date construction commences.			
	(b) The date construction is completed.			
EII.4	(c) The date Unit 1 SCR system has passed acceptance testing (vendor guarantee).			
EU 1 EU 2	(d) The date Unit 1 SDA/FF and PAC systems passed acceptance testing (vendor guarantee).			
EU 3 EU 14	(e) The date Unit 2 SDA/FF and PAC systems passed acceptance testing (vendor guarantee).			
EU 15	(f) The date Unit 3 SCR and ARP systems passed acceptance testing (vendor guarantee).			
	(g) The date Unit 3 PAC system passed acceptance testing (vendor guarantee).			
	(h) The date Unit 3 DS/FF systems passed acceptance testing (vendor guarantee).			
	(i) The date Cooling Tower 1 has passed acceptance testing (vendor guarantee).			
	(j) The date Cooling Tower 2 has passed acceptance testing (vendor guarantee).			
	In accordance with Approval No. 4B94073 and 310 CMR 7.19(8)(d)3., report the hours of operation of each EU on a Source Registration/Emission Statement Form as required by 310 CMR 7.12.			
EU 5 EU 6 EU 7	In accordance with 310 CMR 7.19(13)(d)9., submit compliance records within ten (10) days of written request by MassDEP or EPA.			
EU 8	In accordance with 40 CPR 63, Subpart ZZZZ, submit all of the applicable notifications as listed in the NESHAP General Provisions (40 CFR 63, Subpart A), including an initial notification, notification of performance test, and a notification of compliance with the emission limitations.			
EU 12 <sup>(1)</sup>	In accordance with Approval No. 4B08052 and 40 CFR 60, Subpart Dc, meet the reporting requirements of Section 60.48c(g) and the general provisions of 40 CFR 60.7.			
EU 14 EU 15	In accordance with PSD Permit No. 052-120-MA14, submit all notifications and reports required by this permit to:			
	Air Compliance Clerk EPA-New England, Region 1 5 Post Office Square Suite 100 (OES04-2) Boston, MA 02109-3912			

	Table 6 (continued)			
EU#	Reporting Requirements			
EU 14 EU 15	In accordance with PSD Permit No. 052-120-MA14, after either Cooling Tower 1 or 2 commences operation, the permittee shall submit to EPA New England semi-annual reports postmarked by January 30 <sup>th</sup> and July 30 <sup>th</sup> of each year. Each semi-annual report shall contain the following information from the prior calendar 6-month period:			
	(a) Cooling Towers 1 and 2 rolling 12-month total $PM_{2.5}$ and $PM_{10}$ emission rates.			
	(b) Date and time of all emission limit and permit condition violations.			
	(c) All equipment malfunctions and corrective actions.			
	Submit Emissions Compliance Testing (Stack Testing) Reports in accordance with 310 CMR 7.19(13)(c).			
	Submit a Source Registration/Emission Statement Form to MassDEP on an annual basis in accordance with 310 CMR 7.12.			
	Promptly report to MassDEP all instances of deviations from permit requirements which are not otherwise reported to MassDEP by telephone or fax or electronic mail (e-mail), within three days of discovery of such deviation, as provided in 310 CMR 7.00: Appendix C(10)(f). (See General Condition 25).			
	All required reports must be certified by a responsible official as provided in 310 CMR 7.00: Appendix C(10)(h).			
Facility Wide	In accordance with Approval No. 4B08050, submit by January 15, April 15, July 15, and October 15 for the previous three (3) months, respectively, a 310 CMR 7.29 construction status report which identifies the construction activities which have occurred during the past three months, and those activities anticipated for the following three months, and progress toward achieving compliance with the implementation dates identified in Table 6 of Approval No. 4B08050 Amended Emission Control Plan Final Approval, dated December 29, 2008. (This Table is reproduced in this Operating Permit as Table 6A) (state-only requirement).			
	In accordance with Approval No. 4B08052, the use of wastewater from the Somerset POTW that contains minor amounts of VOCs, is subject to the reporting requirements contained in 310 CMR 7.02(2)(e).			
	In accordance with Approval No. 4B08052, the lime, fly ash, and PAC material handling and storage systems are subject to the reporting requirements contained in 310 CMR 7.03(5).			
	In accordance with Approval No. 4B08052, the permittee shall notify MassDEP by telephone, fax, or electronic mail (e-mail) no later than three (3) business days after the occurrence of any facility upsets or malfunctions to the facility equipment which results in an excess emission to the ambient air and/or a condition of air pollution.			
	In accordance with Approval No. 4B08052, the permittee shall ensure that all final emission test reports are submitted to MassDEP within 60 days after completion of each of the tests.			
	In accordance with Approval No. 4B08052, post-construction sound survey final reports shall be submitted to MassDEP within 60 days after the last day of sound monitoring.			

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	Table 6 (continued)		
EU#	Reporting Requirements		
	All notifications and reporting required by this Operating Permit shall be made to the attention of:		
	Department of Environmental Protection Bureau of Waste Prevention 20 Riverside Drive Lakeville, Massachusetts 02347 ATTN: Permit Section Telephone: (508) 946-2770 Fax: (508) 947-6557 or (508) 946-2865		
Facility Wide	In accordance with Approval No. 4B08052, pursuant to 310 CMR 7.00, Appendix A, the permittee, on an annual basis for a period of 5 years from the date each unit (Unit 1, Unit 2, and Unit 3) resumes regular operation after completion of the steps identified in Approval No. 4B08052, shall submit to MassDEP information demonstrating that the physical or operational change did not result in an emission increase beyond the "representative actual annual emissions" defined in Section IV Emission Offsets and Nonattainment Review of Approval No. 4B08052. Should there be an increase beyond that defined in Approval No. 4B08052, MassDEP will consider information provided by the permittee that the increase is unrelated to the alterations/construction approved in Approval No. 4B08052, such as, any increased utilization due to the rate of electricity demand growth for the utility system as a whole. The installation dates of the Unit 3 SCR and DS/FF emission control systems do not coincide, as is the case of the Units 1 and 2 SCR and SDA/FF/PAC emission control systems. Therefore, Units 1, 2, and 3 will have more than one different 5-year period subject to the requirements of this Condition.		
	In accordance 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 vehicles when stationary source greenhouse gas emissions or 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. (state-only requirement).		
	In accordance with 310 CMR 7.71(6), certify greenhouse gas emissions reports using a form provided by the Department or the registry. (state-only requirement).		
	In accordance with 310 CMR 7.71(7), by December 31 <sup>st</sup> of the applicable year submit to the Department Documentation of triennial verification of the greenhouse gas emissions report. ( <b>state-only requirement</b> ).		

#### **Table 6 Notes:**

- (1) The exhaust of EU 12 (ARP) will be directed to the windbox of Unit 3. If Unit 3 is not available, it will be directed to Unit 1. If neither Unit 3 nor Unit 1 is available, it will be shut down. Therefore, the exhaust of EU 12 will pass through the emission controls on Unit 3 or Unit 1, and that unit's CEMS will measure all emissions from EU 12. EU 12 will be equipped with a fabric filter baghouse to remove particulates in the exhaust gas prior to entering either the Unit 3 or Unit 1 windbox.
- (2) If the ISO final settlement of actual electrical output is not available, the facility shall submit a compliance report based on provisional values of actual electrical output. Upon receiving certified ISO values of actual electrical output for all provisional months within the calendar year, the facility shall submit a revised compliance report within 30 days thereafter.

Table 6A				
	Compliance Path			
Pollutant	Standard	Date		
NO <sub>x</sub> SO <sub>2</sub>	310 CMR 7.29(5)(a)1.a. 310 CMR 7.29(5)(a)2.a.	October 1 2006		
NO <sub>x</sub> SO <sub>2</sub>	310 CMR 7.29(5)(a)1.b. 310 CMR 7.29(5)(a)2.b.	October 1 2008		
CO <sub>2</sub>	310 CMR 7.29(5)(a)5.a.	Calendar Year 2006		
CO <sub>2</sub>	310 CMR 7.29(5)(a)5.b.	Calendar Year 2008		
Hg	310 CMR 7.29(5)(a)3.c.	October 1, 2006		
Hg	310 CMR 7.29(5)(a)3.e.i. or ii.	January 1, 2008		
Hg	310 CMR 7.29(5)(a)3.f.i. or ii.	October 1, 2012		

# 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:

Table 7			
Regulation	Description		
310 CMR 7.07	Open Burning		
310 CMR 7.16 Reduction of Single Occupant Commuter Vehicle Use			
310 CMR 7.25	Consumer and Commercial Products		
310 CMR 7.27	Superseded by 310 CMR 7.28 and 7.32		
310 CMR 7.28	As of January 1, 2009, this regulation is no longer applicable; it was superseded by 310 CMR 7.32		
310 CMR 7.29(5)(a)5.a. and b.	Superseded by 310 CMR 7.70		

## 5. SPECIAL TERMS AND CONDITIONS

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

#### Emission Unit Nos. EU 1, EU 2, EU 3, and EU 4:

- A. The permittee shall comply with the requirements of Standard Operating Procedure, Section 3.0 Coal Handling and Measurement Systems contained in Approval No. 4B91064 dated February 28, 1992.
- B. The permittee shall comply with the requirements of Standard Operating Procedure, Section 4.0 <u>Ash Handling Systems</u> contained in Approval No. 4B91064 dated February 28, 1992.
- C. Unit No. 1 Stack Parameters (Stack No. 1):

Stack Height = 351.7 feet Exit Diameter = 174.0 inches

D. Unit No. 2 Stack Parameters (Stack No. 2):

Stack Height = 351.7 feet Exit Diameter = 174.0 inches

E. Unit No. 3 Stack Parameters (Stack No. 3):

Stack Height = 351.7 feet Exit Diameter = 233.8 inches

F. Unit No. 4 Stack Parameters (Stack No. 4):

Stack Height = 500.0 feet Exit Diameter = 222.0 inches

- G. Federal Acid Rain Program, Phase I Acid Rain Permit
  - (1) Brayton Point Emission Unit Nos. EU 1, EU 2, EU 3, and EU 4 are affected sources for Phase I of the Federal Acid Rain Program, pursuant to the "compensating unit" provisions of 40 CFR 72.43. As such, these emission units are subject to the requirements of the US EPA Phase I Acid Rain Permit, issued to Brayton Point for the period of January 1, 1995 to December 31, 1999, as revised on January 22, 1996. By January 30th of each year, the permittee must hold in the SO<sub>2</sub> allowance account for each emission unit at least one allowance for each ton of SO<sub>2</sub> emitted the previous year, provided the permittee elected that its emission units participate as compensating units for that year. The permittee's designated representative may buy, sell, trade, or transfer allowances for or between EU accounts at any time, except between

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January 30th and the completion of the annual  $SO_2$  allowance reconciliation for the preceding year(s).

#### H. Federal Acid Rain Program, Phase II Acid Rain Permit

- (1) Brayton Point Emission Unit Nos. EU 1, EU 2, EU 3, and EU 4 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 72.71, 40 CFR 72.73, and 310 CMR 7.00, Appendix C(3)(n), MassDEP is the permitting authority for Phase II Acid Rain Permits. MassDEP issued the initial Phase II Acid Rain Permit No. 4B97105 to Brayton Point Station on December 30, 1997 and renewed said permit on February 28, 2003. MassDEP is incorporating the requirements of the renewed Phase II Acid Rain Permit into this Operating Permit. The Phase II Acid Rain Permit will renew in 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 73, Tables 2, 3, and 4 (as amended) and Acid Rain Permit No. 4B97105 Renewal dated February 28, 2003 are identified below:

EU#	Allowances	Tons/Year		
EU#	Allowances	2008	2009	2010 and Beyond
	SO <sub>2</sub>	8,478	8,478	8,496
EU 1	NO <sub>x</sub>	Standard annual average emission limitation of 0.40 lb/MMBtu for Phase II tangentially fired boiler		
	SO <sub>2</sub>	8,908	8,908	8,926
EU 2	NO <sub>x</sub>	Standard annual average emission limitation of 0.40 lb/MMBtu for Phase II tangentially fired boiler		
	SO <sub>2</sub>	18,618	18,618	18,658
EU 3	NO <sub>x</sub>	Standard annual average emission limitation of 0.46 lb/MMBtu for Phase II dry bottom wall-fired boiler		
EU 4	SO <sub>2</sub>	12,135 12,135 11,621		

- (6) Acid Rain Approval No. 4B97105 is incorporated by reference into the Operating Permit.
- I. The permittee is subject to, and has stated in the original operating permit application (Application No. 4V95056, Transmittal No. 108001) 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 United States Environmental Protection Agency enforces these requirements.
- J. Massachusetts Clean Air Interstate Rule (Mass CAIR)
  - (1) The owner/operator of EU 1, EU 2, EU 3, and EU 4 is subject to the Massachusetts Clean Air Interstate Rule (Mass CAIR), 310 CMR7.32, and has submitted a CAIR permit application pursuant to 310 CMR 7.32(3).
- K. Massachusetts CO<sub>2</sub> Budget Trading Program, 310 CMR 7.70
  - (1) The owner/operator of EU 1, EU 2, EU 3, and EU 4 is subject to the Massachusetts CO<sub>2</sub> Budget Trading Program, 310 CMR 7.70, and shall comply with all applicable requirements therein. In accordance with 310 CMR 7.70(3)(b), the CO<sub>2</sub> authorized account representative shall submit a complete CO<sub>2</sub> budget emission control plan under 310 CMR 7.70(3)(c) covering EU 1, EU 2, EU 3, and EU 4, to MassDEP on or before August 1, 2008.

#### Emission Unit Nos. EU 1, EU 2, and EU 3

L. In accordance with Approval No. 4B08052, the permittee shall submit to MassDEP, in accordance with the provisions of Regulation 310 CMR 7.02(5)(c), the final general plans

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and specifications, including updated application forms as applicable, for the construction/-alterations of each system approved within 60 days after each system passes acceptance testing.

- M. In accordance with Approval No. 4B08052, the permittee shall submit Standard Operating and Maintenance Procedures (SOMP) for the new and altered equipment to MassDEP no later than 60 days after commencement of operation. Thereafter, the permittee shall submit updated versions of the SOMP to MassDEP no later than 30 days prior to the occurrence of a significant change. MassDEP must approve in writing any significant changes to the SOMP prior to the SOMP becoming effective.
- N. In accordance with Approval No. 4B08052, the permittee shall maintain a complaint log concerning emissions, odor, PM and sound from the facility. The permittee shall make available to the general public a telephone number that will receive and record complaints 24 hours per day, 7 days per week. The complaint log shall be maintained for the most recent five (5) year period. The complaint log shall be made available to MassDEP upon request. The permittee shall take all reasonable actions to respond to complaints.

#### **Emission Unit Nos. EU 1 and EU 3**

- O. In accordance with Approval No. 4B08052, the permittee shall, within 60 days after the submittal to MassDEP of the compliance test report, propose a surrogate methodology or parametric monitoring for NH<sub>3</sub> emissions based on compliance test results, NH<sub>3</sub> CEMS, and operating experience.
- P. In accordance with Approval No. 4B08050, MassDEP may verify compliance with 310 CMR 7.29(5) by whatever means necessary, including but not limited to: inspection of a unit's operating records; requiring the facility to submit information on actual electrical output of company generating units provided to that person by the New England Independent System Operator, or any successor thereto; testing emission monitoring devices; and, requiring the facility to conduct emissions testing under the supervision of MassDEP (state-only requirement).
- Q. In accordance with Approval No. 4B08050, MassDEP is not approving or denying any off-site or non-contemporaneous proposed CO<sub>2</sub> reduction measures at this time. 310 CMR 7.29(5)(a)5.c. and d. provide that compliance with the CO<sub>2</sub> emission limitations may be demonstrated by using offsite reductions or sequestration in addition to onsite reductions, as long as certain established conditions are met. However, while there is a provision for using early reductions of SO<sub>2</sub> to meet the SO<sub>2</sub> emissions limit in 310 CMR 7.29(5)(a)2.a., there is no similar regulatory provision for use of early reductions of CO<sub>2</sub> for compliance with 310 CMR 7.29(5)(a)5. Provisions for the quantification and certification of Greenhouse Gas (GHG) reductions, avoided emissions, or sequestered emissions for use in demonstrating compliance with the CO<sub>2</sub> emission limitations contained in 310 CMR 7.29 are contained in 310 CMR 7.00, Appendix B(7) Greenhouse Gas Credit Banking and Trading (state-only requirement).
- R. In accordance with Approval No. 4B08052, the basis for NH<sub>3</sub> emission compliance determination will automatically convert from quarterly compliance testing to the NH<sub>3</sub> CEM system upon each unit's CEM system demonstration that the relative accuracy of the NH<sub>3</sub>

CEM system is within  $\pm$  15% for four consecutive quarters and the NH<sub>3</sub> CEM system was operating 90% of the time during the same period.

S. In accordance with Approval No. 4B08052 Unit 1 and Unit 3 shall meet the NH<sub>3</sub> emission limits approved herein within four hours from initiating NH<sub>3</sub> feed to the SCR based upon compliance level ammonia CEM system data. During shutdown of the NH<sub>3</sub> system, EU 1 and EU 3 will be exempt from the hourly limits during the last hour of the NH<sub>3</sub> feed to the SCR.

#### **Emission Unit No. EU 3**

- T. In accordance with 310 CMR 7.00, Appendix C, within 60 days from the date that EU 3 DS/FF commences operation the permittee shall submit a Minor Modification application that addresses a CAM plan for PM emissions.
- U. In accordance with PSD Permit No. 052-120-MA15, the owner/operator shall operate the FF at all times while Emission Unit No. EU 3 is in operation.
- V. In accordance with PSD Permit No. 052-120-MA15, the Emission Unit No. EU 3 heat input shall not exceed 5,655 MMBtu/hr (24-hour block average).
- W. In accordance with PSD Permit No. 052-120-MA15, the owner/operator shall affix a copy of the PSD Permit in the control room.
- X. In accordance with PSD Permit No. 052-120-MA15, after the occurrence of any upset or malfunction to Emission Unit No. equipment or control devices that may result in a violation of any emission limitation or condition contained in the PSD Permit, the owner/operator must notify EPA Region 1, Office of Environmental Stewardship, attention Compliance and Enforcement Chief, by FAX at (617) 918-0905 within two business days, and subsequently in writing to the address listed below or by e-mail to;

#### R1.AirReports@epa.gov

Air Compliance Clerk EPA-New England, Region 1 5 Post Office Square Suite 100 (OES04-2) Boston, MA 02109-3912

#### Emission Unit No. EU 12 – Ash Reduction Process (ARP)

Y. In accordance with Approval No. 4B08052, the ARP shall not operate when Emission Unit No. EU 1 and EU 3 are both shut down.

### Emission Unit Nos. EU 1, EU 2, EU 3, and EU 4 (4-Unit SO<sub>2</sub> Total)

Z. In accordance with Approval No. 4B08052, under the "<u>existing configuration</u>" total SO<sub>2</sub> emissions must not exceed 16,857 lb/hr. Under the "<u>post-retrofit</u>" configuration" total SO<sub>2</sub> emissions must not exceed 18,292 lb/hr. As defined, the "existing configuration" is prior to

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the installation of one or more SO<sub>2</sub> control systems (SDA or DS), or when all SO<sub>2</sub> control systems are not in operation. "<u>Post-retrofit configuration</u>" is following the installation of one or more SO<sub>2</sub> control systems (SDA or DS). The lb/hr limit is based upon a three-hour average, recalculated hourly, as measured by 40 CFR 75 CEMs using valid data only.

### Emission Unit Nos. EU 5, EU 6, EU 7, and EU 8

- AA. In accordance with Approval No. 4B08002, advise MassDEP in writing within fifteen (15) days after the date that the stock of distillate oil (0.3% sulfur by weight) existing on-site on the date of issuance of Approval No. 4B08002 (January 29, 2008) is consumed.
- BB. In accordance with 40 CFR 63, Subpart ZZZZ, the diesel generators will be subject to the Startup, Shutdown, and Malfunction (SSM) requirements, beginning May 3, 2013:

Startup – Minimize the engine's time spent at idle and minimize the engine's startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the engine must meet the otherwise applicable emission standards; however, there are no emissions limits for the startup period.

<u>Shutdown, Malfunction</u> – Applicable emissions limits apply during periods of shutdown and malfunction.

- CC. <u>Maintenance</u> In accordance with 40 CFR 63, Subpart ZZZZ, the diesel generators will be subject to "work practice standards" effective on May 3, 2013, and the permittee will need to follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters.
- DD. <u>Crankcase Ventilation</u> In accordance with 40 CFR 63, Subpart ZZZZ, effective May 3, 2013, the diesel generators will be subject to the crankcase ventilation standards and the permittee must install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, <u>or</u> install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.

#### **SDA/FF and PAC Emission Control Systems**

- EE. In accordance with Approval No. 4B08052, the permittee shall submit to MassDEP final project design information by April 1, 2008 including, but not limited to, all documents not submitted with Application No. 4B08052 (refer to Application No. 4B06002, Appendix A, Form BWP AQ CPA-1, Section B), or items listed as to be determined (TBD), and forms contained in Appendix A of the application.
- FF. In accordance with Approval No. 4B08052, the permittee, within 36 months after the later date the Unit 1 SDA/FF and the Unit 2 SDA/FF have passed acceptance testing (vendor guarantee) shall propose to MassDEP new PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emission limits for Units 1 and 2 and provide supporting justification for the proposed new emission limits or supporting justification for maintaining the emission limits contained herein in Table 3. A minimum of four (4) PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emission tests shall be conducted on each of the stacks serving Units 1 and 2. MassDEP will establish, through issuance of an approval

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letter subject to the Appeal Process, final PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emission limits after review of the permittee's proposed final emission limits and supporting documentation.

#### **DS/FF Emission Control System**

- GG. In accordance with Approval No. 4B08052, the permittee shall submit to MassDEP, in accordance with the provisions of Regulation 310 CMR 7.02(5)(c), the final general plans and specifications, including updated application forms as applicable, for the construction/alterations of each system approved in Approval No. 4B08052 within 60 days after each system passes acceptance testing.
- HH. In accordance with Approval No. 4B08052, the permittee, within 36 months after the date the DS/FF has passed acceptance testing (vendor guarantee) shall propose to MassDEP new PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emission limits for Unit 3 and provide supporting justification for the proposed new emission limits or supporting justification for maintaining the emission limits contained herein in Table 3. A minimum of four (4) PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emission tests shall be conducted. MassDEP will establish, through issuance of an approval letter subject to the Appeal Process, final PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emission limits after review of the permittee's proposed final emission limits and supporting documentation.
- II. In accordance with Approval No. 4B08052, the DS/FF shall be specified, designed and constructed to meet the 0.010 lb/MMBtu PM/PM<sub>10</sub>/PM<sub>2.5</sub> filterable emission limit. The permittee shall specify contractual performance guarantees that require the selected equipment supplier to meet this performance level. The permittee shall take reasonable measures to establish contract language that requires the equipment supplier to attempt to remedy particulate emission performance deficiencies, at a cost to the equipment supplier, up to the limit of liability of the agreed contract. The permittee shall take reasonable measures to negotiate a limit of liability that is equal to the contract amount for this specified guarantee. This establishes a contract make good clause that will require the selected equipment supplier to make good on the 0.010 lb/MMBtu emission limit and take actions up to the value of the contract. A contractual make good clause in general terms means that the equipment supplier must provide engineering, materials and construction to remedy contractual performance guarantee deficiencies.

Should the permittee exercise all contractual obligations and remedies and still not achieve compliance with the 0.010 lb/MMBtu PM/PM $_{10}$ /PM $_{2.5}$  filterable emission limit, the permittee may propose an emission limit up to 0.012 lb/MMBtu, 67.9 lb/hr, and 297.2 tpy. The permittee shall submit documentation supporting the proposed increased emission limit to MassDEP for review and MassDEP will render a written decision of the final emission limit under Application No. 4808052/Transmittal No. X224106.

### Emission Unit Nos. EU 14 and EU 15, Cooling Towers

JJ. In accordance with Approval No. 4B08052, the permittee shall submit to MassDEP, in accordance with the provisions of Regulation 310 CMR 7.02(5)(c), the standard operations and maintenance procedures (SOMP); and the final general plans and specifications, including updated application forms as applicable, for the construction/alterations of each system approved in Approval No. 4B08052 within 60 days after each system passes acceptance testing.

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- KK. In accordance with Approval No. 4B08052 and PSD Permit No. 052-120-MA14, Cooling Towers 1 and 2 shall be equipped with drift eliminators designed (manufacturer's design guarantee) to limit water mist drift to 0.0005% of the cooling tower circulating water flow.
- LL. In accordance with Approval No. 4B08052 and PSD Permit No. 052-120-MA14, Cooling Tower 1 and 2 lb/hr emission limits contained in Table 3 shall be determined from drift eliminator design performance, circulating water flow determined by manufacturer's pump curve, and TDS determined by conductivity monitoring.
- MM. In accordance with Approval No. 4B08052 and PSD Permit No. 052-120-MA14, Cooling Tower 1 and 2 shall be inspected from internal walkways not less than every three months to assure that the drift eliminators are clean and in good working order. Records shall be kept of the inspections. Not less than once per calendar year a complete inspection shall be conducted on Cooling Tower 1 and 2 using an inspector with recognized expertise in the field of natural draft cooling tower drift eliminators. Records shall be kept of these inspections, including the inspector's resume or credentials.
- NN. In accordance with 310 CMR 7.00, Appendix C, within 60 days from the date that EU 14 or EU 15 commences operation the permittee shall submit a Minor Modification application that addresses a CAM plan for PM emissions for EU 14 and EU 15.
- OO. In accordance with PSD Permit No. 052-120-MA14, the permittee shall maintain, at a minimum, the following information:
  - (1) Hours of operation of each circulating water flow pump for each operating day.
  - (2) For each 24-hour time block, the average of the circulating water flow rate in gpm.
  - (3) Continuous readings of total dissolved solids in the circulating water.
  - (4) Quarterly and annual drift eliminator inspection records, including certification as to whether the drift eliminators are properly installed and in good working order.
  - (5) Monitoring equipment design data, maintenance, and repair information, including dates and times of repairs or maintenance.
  - (6) For each operating day, record total  $PM_{2.5}$  and  $PM_{10}$  emissions.
- PP. In accordance with PSD Permit No. 052-120-MA14, the permittee shall maintain the following records for the control and monitoring equipment on the Cooling Towers. For purposes of this permit, a malfunction is a sudden and reasonably unforeseeable failure that results in the possible exceedance of the emission limits or conditions in this permit:
  - (1) Periods of malfunction including, at a minimum, the date and time the malfunction occurred;
  - (2) A description of the malfunction and the corrective action taken;

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- (3) The date and time corrective actions were initiated; and
- (4) The date and time corrective actions were completed and the repaired equipment was returned to compliance
- QQ. In accordance with PSD Permit No. 052-120-MA14, the permittee shall comply with any request by EPA to supply any of the above records.
- RR. In accordance with PSD Permit No. 052-120-MA14, the permittee shall affix a copy of this PSD Permit in the control room.
- SS. In accordance with PSD Permit No. 052-120-MA14, after the occurrence of any upset or malfunction to Cooling Towers 1 or 2 equipment of control devices that may result in a violation of any emission limitation or condition contained herein, the permittee must notify EPA New England, Office of Environmental Stewardship, attention Compliance and Enforcement Chief, by FAX at (617) 918-0905 within two business days, and subsequently in writing to the address listed in Table 6 within seven calendar days or by e-mail to: RI.AirReports@epa.gov.

#### **Facility-Wide**

- TT. In accordance with Approval No. 4B08052, a post-construction sound survey (**state-only requirement**) shall be conducted to define actual sound impacts in comparison to impacts proposed in the associated application and sound emission limits contained in Approval No. 4B08052. Post construction sound surveys shall be conducted no later than 180 days after the latest of the events listed in (1), (2), and (3) below:
  - (1) Unit 1 SDA/FF and PAC systems passes acceptance testing,
  - (2) when Unit 2 SDA/FF and PAC systems passes acceptance testing,
  - (3) or Unit 3 SCR and ARP have both passed acceptance testing;

And no later than 180 days after each of the events listed in (4) and (5) below:

- (4) the date Unit 3 DS/FF passes acceptance testing; but not to exceed 180 days from initial operation Unit 3 DS/FF;
- (5) the date Cooling Tower 1 and Cooling Tower 2 passes acceptance testing, but not to exceed 180 days after the initial operation with both cooling towers.

## 6. ALTERNATIVE OPERATING SCENARIOS

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

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

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### (a) Intra-facility emission trading

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 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 MassDEP pursuant to 310 CMR 7.00: Appendix B.

### (b) Inter-facility emission trading

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

## 8. <u>COMPLIANCE SCHEDULE</u>

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

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

# GENERAL CONDITIONS FOR OPERATING PERMIT

# **9. FEES**

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

## 10. COMPLIANCE CERTIFICATION

All documents submitted to 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 MassDEP's web site,

http://www.mass.gov/dep/air/approvals/agforms.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 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 MassDEP to determine the compliance status of the source.

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

In the event 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 MassDEP takes final action

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

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## 20. PROPERTY RIGHTS

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

# 21. <u>INSPECTION AND ENTRY</u>

Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow authorized representatives of 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 MassDEP or EPA.

# 23. <u>SEVERABILITY CLAUSE</u>

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

# 24. <u>EMERGENCY CONDITIONS</u>

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

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

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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;
- 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 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 supersede the following deviation reporting requirements, if applicable.

The permittee shall report to MassDEP's Regional Bureau of Waste Prevention the following deviations from permit requirements, by telephone, fax or electronic mail (e-mail), 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.

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

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• 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 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, fax or electronic mail (e-mail) 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 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) <u>Administrative Amendments</u> 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) <u>Minor Modifications</u> 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) <u>Significant Modifications</u> 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).

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(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. OZONE DEPLETING SUBSTANCES

This section contains air pollution control requirements that are applicable to this facility, and the United States Environmental Protection Agency enforces these requirements.

- (a) The Permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
  - (1) All containers containing a class I or class II substance that is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to 40 CFR 82.106.
  - (2) The placement of the required warning statement must comply with the requirements of 40 CFR 82.108.
  - (3) The form of the label bearing the required warning statement must comply with the requirements of 40 CFR 82.110.
  - (4) No person may modify, remove or interfere with the required warning statement except as described in 40 CFR 82.112.
- (b) The Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, excepts as provided for motor vehicle air conditioners (MVAC) in Subpart B:
  - (1) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices of 40 CFR 82.156.
  - (2) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment of 40 CFR 82.158.
  - (3) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.
  - (4) Persons disposing of small appliances, MVACs and MVAC-like appliances (as defined in 40 CFR 82.152) must comply with recordkeeping requirements of 40

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CFR 82.166.

- (5) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair equipment requirements of 40 CFR 82.156.
- (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
- (c) If the Permittee manufactures, transforms, imports or exports a class I or class II substance, the Permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A, "Production and Consumption Controls".
- (d) If the Permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the Permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, "Servicing of Motor Vehicle Air Conditioners". The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used on as refrigerated cargo or system used on passenger buses using HCFC-22 refrigerant.
- (e) The Permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, "Significant New Alternatives Policy Program".

# 29. PREVENTION OF ACCIDENTAL RELEASES

This section contains air pollution control requirements that are applicable to this facility, and the United States Environmental Protection Agency enforces these requirements.

Your facility is subject to the requirements of the General Duty Clause, under 112(r)(1) of the CAA Amendments of 1990. This clause specifies that the owners or operators of stationary sources producing, processing, handling or storing a chemical in any quantity listed in 40 CFR Part 68 or any other extremely hazardous substance have a general duty to identify hazards associated with these substances and to design, operate and maintain a safe facility, in order to prevent releases and to minimize the consequences of accidental releases which may occur.

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## 30. LEGEND OF ABBREVIATED TERMS IN OPERATING PERMIT

AQ ID Stationary Source Emission Inventory Identification Number

FMF FAC NO. Facility Master File Facility Number

FMF RO NO. Facility Master File Regulated Object Number

EU# Emission Unit number

AAR Authorized Account Representative

ARP ash reduction process

Btu/kWh British thermal units per kilowatt hour

Btu/lb British thermal units per pound
CAM Compliance Assurance Monitoring
CEM continuous emission monitor
COM continuous opacity monitor

CO carbon monoxide
CO<sub>2</sub> carbon dioxide
CT cooling tower
DS dry scrubber

ECP emission control plan

EPA Environmental Protection Agency

ESP electrostatic precipitator

FF fabric filter

gpm gallons per minute

Hg mercury

HAP hazardous air pollutant HHV higher heating value lb/hr pound per hour

lb/MMBtu pound per million British thermal units

lb/MWh pound per megawatt-hour (net) lb/GWh pound per gigawatt-hour (net)

LOI loss-on-ignition

mA milliampere (1/1,000 of an ampere)

Massachusetts Department of Environmental Protection ("the Department")

MCR maximum continuous rating

MMBtu/hr million British thermal units per hour

MW megawatt

NAICS North American Industrial Classification System

NESHAP National Emissions Standards for Hazardous Air Pollutants

NSPS New Source Performance Standards

NH<sub>3</sub> ammonia NO<sub>2</sub> nitrogen dioxide NO<sub>x</sub> nitrogen oxides

ppm<sub>w</sub> parts per million by weight

ppm<sub>vd</sub> @ 3% O<sub>2</sub> parts per million by volume, dry basis, corrected to three percent oxygen

PAC powder activated carbon

Pb lead

PM particulate matter

PM<sub>10</sub> particulate matter up to 10 microns in size (condensables included)

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# Section 30 (continued)

PM<sub>2.5</sub> particulate matter up to 2.5 microns in size (condensables included)

POTW publicly-owned treatment works
PSD Prevention of Significant Deterioration

R-C Research-Cottrell

SCR selective catalytic reduction

SDA spray dryer absorber SIC Standard Industrial Code

SSM start-up, shutdown, and malfunction

 $SO_2$  sulfur dioxide  $SO_x$  sulfur oxides  $SO_3$  sulfur trioxide

tpy tons per consecutive twelve-month period

VOC volatile organic compounds

< less than > greater than

≤ less than or equal to≥ greater than or equal to

% percent

 $\Delta P$  delta-P; differential pressure

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# 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 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 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.

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.