Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection
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FINAL AIR QUALITY OPERATING PERMIT

(Administrative Amendment to MBR-95-OPP-027SM, Transmittal No. X270180)

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"]:

MATEP Limited Partnership (LP)
474 Brookline Avenue
Boston, Massachusetts 02215

INFORMATION RELIED UPON:

Application No. MBR-95-OPP-027SMA
Transmittal No. X280410

FACILITY LOCATION:
Medical Area Total Energy Plant
474 Brookline Avenue
Boston, Massachusetts 02215

FACILITY IDENTIFYING NUMBERS:
SSEIS ID: 1191191
FMF FACILITY ID: 341192
FMF RO ID: 341194

NATURE OF BUSINESS:

Cogeneration Power Plant

STANDARD INDUSTRIAL CODE (SIC):
4911

NORTH AMERICAN INDUSTRY CLASSIFICATION CODE (NAICS):
221112

RESPONSIBLE OFFICIAL:
Name: Mr. John Prendergast
Title: General Manager
MATEP LP

FACILITY CONTACT PERSON:
Name: Mr. Peter Gluckler Jr.
Title: EH&S Manager
Phone: (617) 598-2711
Email: peter.gluckler@veolia.com

This Operating Permit shall expire on November 14, 2018

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.

May 7, 2018

Edward J. Braczyk
Permit Chief

Date

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SPECIAL CONDITIONS FOR OPERATING PERMIT

1. PERMITTED ACTIVITIES

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

DESCRIPTION OF FACILITY AND OPERATIONS

The Permittee operates the Medical Area Total Energy Plant (MATEP), which is centrally located in the 200 acre Longwood Medical Area (LMA) of Boston. The Permittee, via MATEP, provides steam, chilled water, and electricity to over 9 million square feet of space in facilities throughout the LMA. A summary of the MassDEP's major plan approval actions and MATEP's ownership changes is given below.

The Permittee operates in a manner to generate a potential to emit greater than 50 tons per year of oxides of nitrogen (NOx) via the combustion of natural gas and oil in several Emission Units on-site. As such, the Permittee is subject to NOx RACT[1] requirements. On November 22, 1995, MassDEP issued a NOx RACT Emission Control Plan (ECP)Approval, Appl. No. MBR-94-COM-017, to the Permittee. The NOx RACT ECP Approval governs the following emission units: a) six internal combustion (IC) reciprocating diesel engines, designated DEG-1 through DEG-6, b) three steam boilers, designated PSG-1 (replaced in 2010), PSG-2 and PSG-3; and c) two afterburners and steam heat recovery generators, designated Zurn-1 and Zurn-2.

MATEP's has potential emissions for NOx, an air regulated pollutant, in an amount which equals or exceeds 50 tons per year; as a result, MATEP is subject the Operating Permit Program under 310 CMR 7.00: Appendix C.

Zurn-1 and Zurn-2 are equipped with natural gas and ultra low sulfur diesel (ULSD) fired Coen Duct Burners which are operated at all times downstream from the IC diesel engines to combust unburned, combustible particulates and other combustible gaseous pollutants emitted from each of the IC diesel engine's exhaust stream in these direct flame afterburners. Each Zurn afterburner has sufficient capacity to treat the exhaust input of up to five (5) IC diesel engines operating with a total maximum electrical output of 27.2 megawatts (MW), as required by Final Approval MBR-95-COM-009 and the EPA's approval of Alternative Operating Parameters for 40 CFR 63 Subpart ZZZZ, dated June 3, 2015.

On June 1, 1998, Advanced Energy Systems (AES) acquired MATEP from Harvard University. AES is an unregulated, for-profit subsidiary of NSTAR, Inc., a publicly traded, diversified utility.

On December 10, 2008, MassDEP pursuant to Regulation 310 CMR 7.02(5), issued a Conditional Approval (Appl. MBR-08-COM-003) to the Permittee governing the installation and operation of the new Victory Energy Type O Boiler. This new Boiler replaced the original Boiler designated as PSG-1. Thus the new boiler will now carry the designation "PSG-1". PSG-1 is equipped with ultra low NOx burners, flue gas recirculation, and a carbon monoxide catalyst. PSG-1 is subject to the Federal New Source Performance Standards (NSPS) under 40 CFR Part 60, Subpart Db.

On May 5, 2010, MassDEP received a request from MATEP Limited Partnership (LP) for an ownership change as part of an Administrative Amendment Operating Permit Application. On June 1, 2010, MassDEP received a subsequent notification indicating MATEP LP's ownership of MATEP became effective on June 1, 2010.

[1] Reasonably Available Control Technology for oxides of nitrogen requirements are contained in Regulation 310 CMR 7.19. The Permittee complies with NOx RACT via 310 CMR 7.19(14)-Averaging for Multiple Emission Units to Achieve Compliance.

On May 25, 2010, the Permittee received Final Approval (Appl. No.MBR-02-COM-004) from MassDEP governing their combined cycle combustion turbines, CTG-1 and CTG-2, and heat recovery steam generators, HRSG-100 and HRSG-200, pursuant to Regulation 310 CMR 7.02(5). These units are equipped with selective catalytic reduction (SCR) to control NOx and an oxidation catalyst to control carbon monoxide (CO).

CTG-1 and CTG-2 are subject to the Federal New Source Performance Standard (NSPS) Regulations for Combustion Turbines pursuant to 40 CFR Part 60, Subpart GG. CTG-1 and CTG-2 are also subject to the Federal Compliance Assurance Monitoring (CAM) Regulations, 40 CFR Part 64. The CAM requirements include monitoring each SCR's catalyst operating temperature and urea usage rate.

HRSG-100 and HRSG-200 are subject to the NSPS Regulations for Small Industrial-Commercial-Institutional Steam Generating Units pursuant to 40 CFR Part 60, Subpart Dc; however, there are no emission standard requirements, because these units combust natural gas only.

The Permittee's facility-wide hazardous air pollutants (HAP) emissions are below the major thresholds for any individual HAP of 10 tons per year and any combination of HAPs of 25 tons per year. As such, MATEP is considered an area source for HAPs.

Boilers emission units PSG-1, PSG-2, PSG-3, Zurn-1 and Zurn-2 are subject to the area source boiler Maximum Available Control Technology(MACT) regulations under 40 CFR Part 63 Subpart JJJJJJ. These boilers are considered existing boilers under Subpart JJJJJJ, since the boilers commenced construction on or before June 4, 2010. As required in §63.11205, at all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions. See Table 4 monitoring and testing requirements that are associated with this MACT regulation.

The Permittee operates DEG-1, DEG-2, DEG-3, DEG-4, DEG-5 and DEG-6, which each have an output rating of 9,600 horsepower and have the following engine parameters: compression ignition, continuous duty diesel engines generators. These units are subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Reciprocating Internal Combustion Engines (RICE) Subpart ZZZZ Regulations and were installed before June 12, 2006 and thus considered existing engines. The date of compliance specified within the rule is May 3, 2013.

On February 19, 2013, the Permittee requested from EPA a one year extension of the NESHAP RICE compliance deadline until May 3, 2014 and to perform the emissions testing no later than October 30, 2014 for DEG-1 through 6. On May 3, 2013, EPA issued an approval for this request to extend the compliance deadline until May 3, 2014 and the emission testing deadline to no later than October 30, 2014. On June 3, 2015 EPA issued a letter approving the Permittee's petition for alternative operating parameters.

The Permittee's facility also houses two emergency diesel generators (EDG) and one emergency diesel fire pump (FP). EDG-1 is rated at 210 kilowatts (kW) and 347 brake horsepower (bhp) and is a standby duty engine. EDG-2 is rated at 410 kW and 688 bhp and is a standby duty engine. FP-1 is rated at 240 horsepower. All three units are subject to the NESHAP RICE Regulations pursuant to 40 CFR Part 63, Subpart ZZZZ. The date of compliance for this rule is May 3, 2013.

On July 1, 2016, the Permittee was issued a Plan Approval (Application No. NE-14-013) from MassDEP, pursuant to Regulation 310 CMR 7.02(5), governing the installation and operation of a third combustion turbine, CTG-3, and heat recovery steam generator, HRSG-300. The CTG/HRSG combination is equipped with selective catalytic reduction (SCR) to control nitrogen oxide emissions and an oxidation catalyst to control carbon monoxide emissions. CTG-3 also makes use of a Dry Low NOx (DLN) combustor to achieve low NOx emission levels. CTG-3 is subject to the Federal New Source Performance Standard (NSPS) Regulations for Combustion Turbines pursuant to 40 CFR Part 60, Subpart KKKK.

In addition, on July 1, 2016, the Permittee was issued a federal Prevention of Significant Deterioration (PSD) Permit from the MassDEP governing the installation and operation of the combustion units CTG-3 and HRSG-300.

As required by 310 CMR 7.00, Appendix C Operating Permit and Compliance Program Regulations, the Permittee submitted a significant modification application to update its Operating Permit to incorporate the proposed CTG-3 and

HRSG-300 project as described in its Plan Approval (Application No NE-14-013).

The products of combustion from the total facility, except for the two EDGs and FP, are emitted through a reinforced concrete, double flue stack, the top of which is 315 feet above ground level. Each flue has an effective diameter of 9.75 feet, as referenced in Approval NE-14-013.

In accordance with the requirement of 310 CMR 7.00: Appendix B(4)(f), MassDEP has determined that Approval MBR-95-COM-009, the Permittee's NOx RACT Bubble Approval, shall be renewed for a period not to exceed 5 years consistent with this Operating Permit Renewal. This determination was made since on April 25, 2012 and as supplemented on July 26, 2012, the Permittee submitted an air dispersion modeling study using the EPA approved AEROMOD software program, which showed that the emissions from Permittee's facility demonstrated compliance with the one hour NO_2 National Ambient Air Quality Standard (NAAQS).

Facility requirements for the applicable emission units are listed in the following tables: Table 1 identifies each emission unit; Table 2 refers to the exempt activities; Table 3 states the emission limits and restrictions; Table 4 states the monitoring and testing requirements; Table 5 states the record keeping requirements; Table 6 states the reporting requirements; Table 7 contains the requirements that are not currently applicable; and Table 8 states the special terms and conditions to which Permittee is subject.

2. EMISSION UNIT IDENTIFICATION

The following emission units in Table 1 are subject to and regulated by this Operating Permit:

Table 1

EU	Description of EU	EU Design Capacity	Pollution Control Device (PCD)
PSG-1	Victory Energy Type O Boiler	214 MMBtu/hr (gas) 205 MMBtu/hr (ULSD)	Flue gas recirculation Oxidation catalyst
PSG-2	Riley MHW Boiler No.2	244 MMBtu/hr	None
PSG-3	Riley MHW Boiler No.3	244 MMBtu/hr	
Zurn-1	Zurn Afterburner/Heat Recovery Steam Generator No.1	225 MMBtu/hr	
Zurn-2	Zurn Afterburner/Heat Recovery Steam Generator No.2	225 MMBtu/hr	
DEG-1	Mirrlees DEG No.1	63.8 MMBtu/hr	Zurn-1 and Zurn-2
DEG-2	Mirrlees DEG No.2	63.8 MMBtu/hr	Zurn-1 and Zurn-2
DEG-3	Mirrlees DEG No.3	63.8 MMBtu/hr	Zurn-1 and Zurn-2
DEG-4	Mirrlees DEG No.4	63.8 MMBtu/hr	Zurn-1 and Zurn-2
DEG-5	Mirrlees DEG No.5	63.8 MMBtu/hr	Zurn-1 and Zurn-2
DEG-6	Mirrlees DEG No.6	63.8 MMBtu/hr	Zurn-1 and Zurn-2
CTG-1	Alstom Gas Combustion Turbine No. 1	152.6 MMBtu/hr*	SCR/CO Catalysts
CTG-2	Alstom Gas Combustion Turbine No. 2	152.6 MMBtu/hr*	SCR/CO Catalysts
CTG-3	Solar Titan 130 Combustion Turbine	164.6 MMBtu/hr (natural gas) 158.8 MMBtu/hr (ULSD)	Dry Low NOx Combustor SCR/CO Catalysts
HRSG-100	ERI Heat Recovery Steam Generator No. 1 serving CTG-1	75 MMBtu/hr	SCR/CO Catalysts
HRSG-200	ERI Heat Recovery Steam Generator No. 2 serving CTG-2	75 MMBtu/hr	SCR/CO Catalysts
HRSG-300	Heat Recovery Steam Generator serving CTG-3	38.8 MMBtu/hr	SCR/CO Catalysts

EDG-1	210 KW Emergency Diesel Generator	2.94 MMBtu per hour	None
EDG-2	410 KW Emergency Diesel Generator	5.47 MMBtu per hour	None
FP-1	240 hp Emergency Diesel Fire Pump	1.8 MMBtu per hour	None

Table 1 Key
EU = Emission Unit Number
PCD = Pollution Control Device
HRSG = Heat Recovery Steam Generator
MMBtu/hr = million British thermal units per hour
gal/min = gallons per minute
ULSD = ultra low sulfur diesel
SCR = Selective Catalytic Reduction
CO = Carbon Monoxide
DEG = diesel engine generator
EDG = emergency diesel generator
FP = fire pump
No. = number
*CTG-1 and CTG-2 are each rated at 152.6 MMBtu per hour at 0 degrees F inlet air temperature and 136.9 MMBtu per hour at ISO conditions.

3. IDENTIFICATION OF EXEMPT ACTIVITIES

The following activities are considered to be 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 Northeast Regional Office. Emissions from these activities shall be reported on the annual emissions statement pursuant to 310 CMR 7.12.	310 CMR 7.00: Appendix C(5)(h)

4. APPLICABLE REQUIREMENTS

A. OPERATIONAL AND/OR PRODUCTION EMISSION LIMITS AND RESTRICTIONS

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

Table 3					
EU	**Fuel**	**Pollutant**	**Operational and/or Production Limits**	**Emission Limits/Standards[1]**	**Applicable Regulation and/or Approval No.**
PSG-1	Natural gas	NOx	NA	0.011 lb/MMBtu (9 ppmvd @3%O2)	MBR-08-COM-003
		CO		0.0037 lb/MMBtu (5 ppmvd @3%O2)	
		VOC		0.002 lb/MMBtu	
		PM/PM10/ PM2.5	NA	0.007 lb/MMBtu	
		SO2		0.0015 lb/MMBtu	

Table 3					
EU	**Fuel**	**Pollutant**	**Operational and/or Production Limits**	**Emission Limits/Standards[1]**	**Applicable Regulation and/or Approval No.**
PSG-1	ULSD	NOx	maximum sulfur content of 0.0015 wt. %; maximum fuel usage of 2,108,571 gallons per 12 month rolling period	0.09 lb/MMBtu (70 ppmvd @3%O2)	MBR-08-COM-003
		CO		0.0039 lb/MMBtu (5 ppmvd @3%O2)	
		VOC		0.002 lb/MMBtu	
		PM/PM10/ PM2.5		0.04 lb/MMBtu	
		SO2		0.0015 lb/MMBtu	
	Natural Gas or ULSD	SO2	NA	Less than or equal to 1.2 lb/MMBtu (annual calendar average basis)	310 CMR 7.22(1)
		NOx		0.20 lb/MMBtu (30-day rolling average basis)	40 CFR Part 60.42b(k)(1) *Subpart Db*
				21.9 tons per 12-month period	MBR-08-COM-003
		CO		3.5 tons per 12-month period	
		$PM/PM_{10}/PM_{2.5}$		11.4 tons per 12-month period	
		SO_2		1.4 tons per 12-month period	
		VOC		1.9 tons per 12-month period	
		Opacity		≤20%, except for one six-minute period of not more than 27%.	40 CFR Part 60.43b(f) *Subpart Db*
PSG-2 PSG-3	Natural gas	PM NO_x CO	NA	0.01 lb/MMBtu 0.18 lb/MMBtu 0.04 lb/MMBtu	MBR-95-COM-009 310 CMR 7.19(4)
	ULSD ≤0.0015 % S by wt.	PM NO_x CO	NA	0.027 lb/MMBtu 0.20 lb/MMBtu 0.07 lb/MMBtu	
		Sulfur in fuel	≤5000 hours operating time per EU (1,220,000 MMBtu/EU) utilizing ULSD during any rolling 12-month period	0.0015 % S by wt.	MBR-02-COM-004
	Natural gas or ULSD	SO2	NA	Less than or equal to 1.2 lb/MMBtu (annual calendar average)	310 CMR 7.22(1)
Zurn-1 Zurn-2	natural gas (primary)	PM NOx CO	NA	0.04 lb/MMBtu[3] 0.3 lb/MMBtu 200 ppmvd @3% O_2	MBR-95-COM-009 310 CMR 7.19(4)(a)4.a. 310 CMR 7.19(4)(f)

Table 3					
EU	**Fuel**	**Pollutant**	**Operational and/or Production Limits**	**Emission Limits/Standards[1]**	**Applicable Regulation and/or Approval No.**
Zurn-1 Zurn-2	ULSD ≤0.0015 % S by wt.	Sulfur	≤5000 hours operating time (1,125,000 MMBtu/year per EU) utilizing ULSD during any rolling 12-month period	0.0015 % S by wt.	MBR-02-COM-004
	Natural gas or ULSD	SO2	NA	Less than or equal to 1.2 lb/MMBtu (annual calendar average)	310 CMR 7.22(1)
DEG-1 DEG-2 DEG-3 DEG-4 DEG-5 DEG-6	#2 Fuel Oil ≤0.05% S by wt. (primary)	PM	NA	0.04 lb/MMBtu[3]	MBR-95-COM-009 310 CMR 7.05(1)(a)1.
		NO_x	NA	9.0 grams per brake horsepower-hour	310 CMR 7.19(8)(c)3
		NH3	NA	3.0 ppm@15% O2 at the outlet of the Zurn	MBR-99-NOx-001
		CO	NA	23 ppm or a 70% control reduction	40 CFR Part 63, Subpart ZZZZ[7]
CTG-1, HRSG-100, CTG-2, HRSG-200	Natural gas	PM/PM10/ PM2.5	NA	0.025 lb/MMBtu	MBR-02-COM-004
		NOx		2.0 ppmvd@15% O2	
		CO		2.5 ppmvd@15% O2 with DB 1.0 ppmvd@15%O2 without DB	
		Sulfur		1.0 grains per 100 scf	
	Natural Gas	VOC		2.5 ppmvd@15% O2 with DB 1.0 ppmvd@15%O2 without DB	MBR-02-COM-004
		NH3		3.0 ppmvd@15% O2	40 CFR Part 64
		NA	SCR Catalyst Temperature Maintain >450°F and <750°F	See Operational Limits	40 CFR Part 64
	ULSD ≤0.0015 % S by wt.	PM/PM10/ PM2.5	<5000 hours operating time per EU(625,000 MMBtu/year per EU) utilizing ULSD during any rolling 12-month period	0.040 lb/MMBtu	MBR-02-COM-004 310 CMR 7.02
		NOx		6.0 ppmvd@15%O2	MBR-02-COM-004
		CO		5.0 ppmvd@15%O2	
		VOC		7.0 ppmvd@15%O2	

Table 3					
EU	**Fuel**	**Pollutant**	**Operational and/or Production Limits**	**Emission Limits/Standards[1]**	**Applicable Regulation and/or Approval No.**
CTG-1, HRSG-100, CTG-2, HRSG-200	ULSD ≤0.0015 % S by wt	Sulfur		0.0015%S,ULSD	
		NH3		3.0 ppmvd@15%O2	
		NA	See Standard Operating Procedures for operational range of the urea usage rate	NA	40 CFR Part 64
		NA	SCR Catalyst Temperature Maintain >510°F and <750°F	See Operational Limits	40 CFR Part 64
	Natural Gas or ULSD	NOx	NA	STD = 0.0075 x (14.4)/(Y)+F	40 CFR 60.332(a)(1)
		NA	Do not operate below 5 MW except during startup or shutdown. Startups and shutdowns are limited to no more than 3 hours per episode.	NA	MBR-02-COM-004
HRSG-100 HRSG-200	Natural Gas ULSD	SO2	NA	Less than or equal to 1.2 lb/MMBtu (annual calendar average)	310 CMR 7.22(1)
EDG-2	ULSD ≤0.0015 % S by wt.	NA	≤300 hours per rolling 12 month period for use only during maintenance and testing procedures and emergencies	NA	310 CMR 7.02(8)(i)2. (installed prior to 6/1/1990 and ≥ 3 MMBtu/hr)
EDG-2	ULSD ≤0.0015 % S by wt.	S in ULSD		0.0015 % S by wt.	310 CMR 7.02(8)(i)5
		NA	Maintenance and testing is limited to 100 hours per year.	NA	40 CFR Part 63 Subpart ZZZZ
EDG-1 FP-1	ULSD ≤0.0015 % S by wt	NA		NA	
CTG-3/HRSG-300	Natural Gas	NO_x	Operation at ≥ MECL, excluding start-ups and shutdowns	2.0 ppmvd @ 15% O_2 with or without DB 0.0074 lb/MMBtu with or without DB 1.21 lb/hr without DB; 1.51 lb/hr with DB	Approval No. NE-14-013 and Prevention of Significant Deterioration Permit
		CO		2.0 ppmvd @ 15% O_2 with or without DB 0.0045 lb/MMBtu with or without DB 0.74 lb/hr without DB; 0.92 lb/hr with DB	

Table 3					
EU	**Fuel**	**Pollutant**	**Operational and/or Production Limits**	**Emission Limits/Standards[1]**	**Applicable Regulation and/or Approval No.**
CTG-3/HRSG-300	Natural Gas	VOC	Operation at ≥ MECL, excluding start-ups and shutdowns	1.7 ppmvd @ 15% O_2 with or without DB 0.0022 lb/MMBtu with or without DB 0.36 lb/hr without DB; 0.45 lb/hr with DB	Approval No. NE-14-013 and Prevention of Significant Deterioration Permit
		S in Fuel		1.0 grains/100 scf	
		SO_2		0.6 ppmvd @ 15% O_2 with or without DB 0.0029 lb/MMBtu with or without DB 0.48 lb/hr without DB; 0.58 lb/hr with DB	
		H_2SO_4		0.4 ppmvd @ 15% O_2 with or without DB 0.0029 lb/MMBtu with or without DB 0.47 lb/hr without DB; 0.58 lb/hr with DB	
		$PM/PM_{10}/PM_{2.5}$		0.020 lb/mmbtu with or without DB 3.29 lb/hr without DB; 4.07 lb/hr with DB	
		NH_3		2.0 ppmvd @ 15% O_2 with or without DB 0.0027 lb/MMBtu with or without DB	
		NH_3		0.44 lb/hr without DB; 0.55 lb/hr with DB	
		Greenhouse Gases as CO_{2e}		118.9 lb CO2/mmBtu 119.0 lb CO2e/mmBtu 19,584 lb/hr without DB, 24,200 lb/hr with DB	
	ULSD	NO_x	Operation at ≥ MECL, excluding start-ups and shutdowns Maximum annual fuel usage for ULSD is 878,400 gallons per 12-month rolling period, which is based on 720 operating hours and a maximum firing rate of 1,220 gallons per hour	6.0 ppmvd @ 15% O_2 with or without DB 0.0233 lb/MMBtu without DB; 0.0231 lb/mmbtu with DB 3.70 lb/hr without DB; 4.56 lb/hr with DB	
		CO		7.0 ppmvd @ 15% O_2 with or without DB 0.0166 lb/MMBtu without DB; 0.0164 lb/mmbtu with DB 2.63 lb/hr without DB; 3.24 lb/hr with DB	
		VOC		7.0 ppmvd @ 15% O_2 with or without DB 0.0095 lb/MMBtu without DB;	

Table 3

EU	Fuel	Pollutant	Operational and/or Production Limits	Emission Limits/Standards[1]	Applicable Regulation and/or Approval No.
CTG-3/HRSG-300	ULSD	VOC	Operation at ≥ MECL, excluding start-ups and shutdowns Maximum annual fuel usage for ULSD is 878,400 gallons per 12-month rolling period, which is based on 720 operating hours and a maximum firing rate of 1,220 gallons per hour	0.0094 lb/mmbtu with DB 1.51lb/hr without DB; 1.86 lb/hr with DB	Approval No. NE-14-013 and Prevention of Significant Deterioration Permit
		SO_2		0.3 ppmvd @ 15% O_2 with or without DB 0.0016 lb/MMBtu with or without DB 0.25 lb/hr without DB; 0.36 lb/hr with DB	
		H_2SO_4		0.2 ppmvd @ 15% O_2 without DB; 0.22 ppmvd @ 15% O_2 with DB 0.0016 lb/MMBtu without DB; 0.0018 lb/MMBtu with DB 0.25 lb/hr without DB; 0.36 lb/hr with DB	
		$PM/PM_{10}/PM_{2.5}$		0.034 lb/MMBtu without DB; 0.031 lb/MMBtu with DB 5.40 lb/hr without DB; 6.15 lb/hr with DB	
		NH_3		2 ppmvd @ 15% O_2 with or without DB	
		NH_3		0.0029 lb/MMBtu with or without DB 0.46 lb/hr without DB; 0.57 lb/hr with DB	
		Greenhouse Gases as CO_{2e}		165.9 lb CO2/mmBtu 166.0 lb CO2e/mmBtu 26,363 lb/hr without DB, 31,000 lb/hr with DB	
	Natural Gas	NO_x	Operation during start-ups Start-up duration: ≤ 3.0 hours	36.2 lb per event	
		CO		153.7 lb per event	
		$PM/PM_{10}/PM_{2.5}$		12.2 lb per event	
		H_2SO_4		1.8 lb per event	
		SO_2		1.8 lb per event	
		VOC		11.4 lb per event	
		NO_x	Operation during shutdowns Shutdown duration: ≤ 1.0 hour	11.2 lb per event	
		CO		41.6 lb per event	
		$PM/PM_{10}/PM_{2.5}$		4.1 lb per event	
		H_2SO_4		0.6 lb per event	
		SO_2		0.6 lb per event	

Table 3					
EU	**Fuel**	**Pollutant**	**Operational and/or Production Limits**	**Emission Limits/Standards[1]**	**Applicable Regulation and/or Approval No.**
CTG-3/HRSG-300	Natural Gas	VOC		3.3 lb per event	Approval No. NE-14-013, Prevention of Significant Deterioration Permit
	ULSD	NO_x	Operation during start-ups Start-up duration: ≤ 3.0 hours	112.6 lb per event	
		CO		144.8 lb per event	
		$PM/PM_{10}/PM_{2.5}$		18.5 lb per event	
		H_2SO_4		1.2 lb per event	
		SO_2		1.2 lb per event	
		VOC		85.4 lb per event	
		NO_x	Operation during shutdowns Shutdown duration: ≤ 1.0 hour	34.2 lb per event	
		CO		40.9 lb per event	
		$PM/PM_{10}/PM_{2.5}$		6.2 lb per event	
		H_2SO_4		0.4 lb per event	
		SO_2		0.4 lb per event	
		VOC		33.4 lb per event	
	Natural Gas or ULSD	NOx	Operation all load conditions including start-ups and shutdowns Fuel Heat Input of CTG-3/ HRSG-300 < 1,781,784 mmBtu, HHV per 12-month rolling period	7.79 tons per 12-month period	
		CO		5.84 tons per 12-month period	
		VOC		2.50 tons per 12-month period	
		NH_3		2.43 tons per 12-month period	
		H_2SO_4		2.55 tons per 12-month period	
		Pb		0.1 tons per 12-month period	
		Formalde-hyde or Single HAP		0.52 tons per 12-month period	
		Total HAPs		0.81 tons per 12-month period	
		$PM/PM_{10}/PM_{2.5}$		18.8 tons per 12-month period	
		SO_2		2.56 tons per 12-month period	
		CO_2		108,200 tons per 12-month period	
		Greenhouse Gases as CO_{2e}		108,500 tons per 12-month period	

Table 3					
EU	**Fuel**	**Pollutant**	**Operational and/or Production Limits**	**Emission Limits/Standards[1]**	**Applicable Regulation and/or Approval No.**
	Natural gas	NO_x	NA	25 ppmvd @15% O_2 or 150 ng/J of useful output (1.2 lb/MWh)	40 CFR 60, Subpart KKKK
	Natural gas ULSD	SO_2	NA	110 nanograms per Joule (0.90 lb/MWh) as gross output or 26 ng SO_2 per Joule (0.060 lb SO2 per mmBtu) as fuel content	40 CFR 60, Subpart KKKK
CTG-3/HRSG-300	ULSD	NOx	NA	74 ppm @ 15% O2 or 460 ng/J of useful output (3.6 lb/MWh)	
Facility-Wide	See above for fuel(s) of use for each EU.	NO_x	NA	850 pounds per hour	MBR-95-COM-009
				Facility-wide actual emissions in lbs/day of NOx must be ≤ ALE_{NOx}[4]	MBR-94-COM-017 310 CMR 7.19(14) 310 CMR App. B
		Smoke	NA	<No.1 of Chart[2], except No.1 to <No.2 of Chart for ≤6 minutes during any 1 hour	310 CMR 7.06(1)(a)
		Opacity	NA	≤20%, except 20 to ≤40% for ≤2 minutes during any 1 hour	310 CMR 7.06(1)(b)
		ULSD S in #2 Fuel Oil	NA	0.0015%S	310 CMR 7.05(1)(a)1:Table 1
				0.05 lb/MMBtu	
		S in #6 Fuel Oil		0.28 lb/MMBtu	310 CMR 7.05(1)(a)1:Table 1
		PM		60 tons per 12-month period, 12 tons per month[5]	MBR-02-COM-004
		NOx		1524 tons per 12-month period, 310 tons per month	
		VOC		48 tons per 12-month period, 12 tons per month	
		CO		131 tons per 12-month period, 33 tons per month	
		SO2		248 tons per 12-month period, 62 tons per month	
		Greenhouse Gases[6]		NA	310 CMR 7.71(state only)

Table 3 Key

EU = Emission Unit, # = number
MMBtu = million British thermal units
lb/MMBtu = pound per million British thermal units
ppmvd @ 3% O_2 = parts per million by volume, dry basis, corrected to 3 percent oxygen
ppmvd @ 15% O_2 = parts per million by volume, dry basis, corrected to 15 percent oxygen
lb/day = pounds per day

scf = standard cubic feet
O_2 = oxygen
NO_x = nitrogen oxides
CO = carbon monoxide
PM = filterable particulate matter as measured by Method 5.
PM/PM10/PM2.5 = filterable and condensable particulate matter as measured by Method 5 and Method 202, respectively.
NH3 = Ammonia
Opacity = exclusive of uncombined water vapor
S = sulfur
SO2 = sulfur dioxide
% = percent; @ = at; SCR = selective catalytic reduction; VOC = volatile organic compounds; °F = degrees Fahrenheit
NA = not applicable
wt. = weight; DB = Duct Burners
ULSD = Ultra low sulfur diesel fuel containing a maximum of 0.0015 weight percent sulfur
< = less than
> = greater than
≤ = less than or equal to
STD = allowable ISO corrected NOx emission concentration at 15% O2 on a dry basis,
Y = manufacturer's rated heat rate at manufacturer's rated load; F = fuel bound nitrogen for N <0.015% by wt.
MECL = minimum emissions compliance load
*NOx limit is lower than the Federal 40 CFR 60.332(b) limit of 75 parts per million.
**Sulfur limit is lower than the Federal 40 CFR 60.333b limit of 0.8 wt. percent sulfur.

Table 3 Footnotes:

1 Compliance with emission limit(s)/standard(s) shall be based on one-hour averaging time, consistent with applicable testing and reporting procedures under 40 CFR 60, Appendix A, except where indicated. Compliance with the NOx RACT facility-wide limit is determined on a daily basis.

2 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.

3 The PM emission limit for the Zurns and DEGs is a combined limit for DEG/Zurn exhaust.

4 ALE_{NOx} = A + B + C + D, where A is the allowable NOx emitted from the six Mirrlees engines (DEG-1,2,3,4,5,6); B is the allowable NOx emitted from the three PSG boilers (PSG-1, PSG-2 and 3); C is the allowable NOx emitted from the two Zurn afterburners (Zurn-1,2); and D is the allowable NOx emitted from the three Combustion Turbines and associated Duct Burners (CTG-1-3 and HRSG-100-300). A, B, C, and D are in units of pounds of NOx per day.
Refer to Table 8 Condition 6 below for details on the allowable NOx emission limit equation.

5 To calculate the amount of a consecutive 12 month rolling period take the current calendar month amount and add it to the previous 11 calendar months total amount.

6 Greenhouse Gas 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_2, CH_4, N_2O, SF_6, hydrofluorocarbons (HFCs), and perfluorocarbons(PFCs).

7 For emission units: DEG-1, 2, 3, 4, 5 and 6, EPA approved the Permittee's petition for alternative operating limitations within a letter dated June 3, 2015. Please see the facility's site-specific monitoring plan for additional details.

B. COMPLIANCE DEMONSTRATION

The Permittee is subject to the monitoring/testing, record keeping, and reporting requirements as contained in Tables 4,

5, and 6 below and 310 CMR 7.00: Appendix C (9) and (10), and the applicable requirements contained in Table 3.

Table 4	
EU	**Monitoring and Testing Requirements**
PSG-1 PSG-1	1) The Permittee shall calibrate, test and operate a Data Acquisition and Handling System(s) (DAHS), Continuous Emissions Monitoring System (CEMS) serving PSG-1 in accordance with the Federal Regulations under 40 CFR Part 60, Appendices B and F. These systems shall be used to measure and record the following emissions for PSG-1: a) Oxides of Nitrogen (NO_x) b) Carbon Monoxide (CO) c) Oxygen
	2) The Permittee shall ensure that all emission monitors and recording equipment serving this EU complies with MassDEP approved performance and location specifications, and conforms with the USEPA monitoring specifications at 40 CFR Part 60.13 and 40 CFR Part 60 Appendices B and F.
	3) The Permittee shall operate and maintain the CEMS for this EU with audible and visible alarms to activate in a manned area of the facility whenever emissions exceed the limits established in Table 2 as per Conditional Approval MBR-08-COM-003.
	4) The Permittee shall operate the CEMS serving PSG-1 Boiler at all times except for periods of CEMS calibration checks, zero and span adjustments, preventative maintenance, and periods of unavoidable malfunction as per Conditional Approval MBR-08-COM-003.
	5) The Permittee shall operate and maintain its CEMS serving this EU as "direct-compliance" monitors to measure NO_x, CO, and O_2. "Direct-compliance" monitors generate data that legally documents the compliance status of a source as per Conditional Approval MBR-08-COM-003.
	6) The Permittee shall obtain and record emissions data from each CEMS serving this EU for at least 95 percent of the EU's operating hours per quarter, except for periods of CEMS calibration checks, zero and span adjustments, and preventive maintenance as per Conditional Approval MBR-08-COM-003.
	7) The Permittee shall operate and maintain continuous monitors and alarm systems to monitor and record the temperature at the inlet to the CO oxidation catalyst as per Conditional Approval MBR-08-COM-003.
	8) The Permittee shall operate and maintain continuous monitors to monitor and record the recirculation rate of the flue gas recirculation to the burner box area as per Conditional Approval MBR-08-COM-003.
	9) The Permittee shall use and maintain the Continuous Opacity Monitoring Systems (COMS) installed on the two common stack flues to measure the opacity of exhaust discharged to the atmosphere for comparison to the opacity standard in 40 CFR 60.43b(f). If one or both COMS measures in excess of the 40 CFR 60.43b(f) limit, PSG-1 shall be reported as incurring an exceedance unless the Permittee maintains credible evidence (e.g. operational data) that the event was caused by a different source(s).
	10) The Permittee shall maintain a quality assurance/quality control (QA/QC) program for the long-term operation of the CEMS serving this EU which conforms with 40 CFR Part 60, Appendix F. The CEMS QA/QC plan for this EU, dated March 30, 2011, has been implemented and shall be maintained. Any subsequent changes to this Plan shall be approved by MassDEP as per Conditional Approval MBR-08-COM-003.
	11) The Permittee shall maintain its Final Standard Operating and Maintenance Procedures (SOMP), dated April 28, 2011, for this EU per Conditional Approval MBR-08-COM-003. Any subsequent updates to the SOMP shall be submitted and approved by MassDEP.
PSG-2, PSG-3, Zurn-1, Zurn-2	12) The Permittee shall conduct Emissions Compliance Testing for CO emissions annually prior to October 1st of each year as required in 310 CMR 7.19(13) and referenced in Final Approval MBR-95-COM-009, Condition No. 29.
	13) If fuel oil is fired in either unit Zurn-1 or Zurn-2 for more than 480 hours in any calendar year, then the Permittee shall proceed to test the unit(s) in accordance with an approved protocol as referenced in Final Approval MBR-95-COM-009, Condition No. 25.
	14) The Permittee shall monitor the number of hours fuel oil is utilized to demonstrate that the facility is maintaining the restriction referenced in Final Approval, MBR-02-COM-004.

Table 4	
EU	**Monitoring and Testing Requirements**
PSG-1, PSG-2, PSG-3, Zurn-1, Zurn-2	15) The Permittee shall in accordance with 310 CMR 7.04(4)(a), inspect and maintain the PSGs and Zurns in accordance with manufacturer's recommendations and test for efficient operation at least annually.
	16) The Permittee shall conduct a performance tune-up according to 40 CFR 63.11223(b) and shall prepare a biennial compliance certification that indicates compliance with all the relevant standards and requirements of this subpart. The Permittee does not need to submit this report, but it can be requested by MassDEP under 40 CFR 63.11225(b).
PSG-1, PSG-2, PSG-3, Zurn-1, Zurn-2	17) The Permittee shall be subject to the abovementioned tune-up on a biennial basis according to 40 CFR 63.11223(b). The time period for each biennial report only covers the 12 months prior to the tune-up and the tune-up can be conducted any time in that two year period, but within 25 months of the previous tune-up.
DEG-1 DEG-2 DEG-3	18) The Permittee shall conduct a particulate emissions testing program every 5 years to demonstrate that the combined DEG/Zurn exhaust is in compliance with the applicable emission rates as required by Final Approval MBR-95-COM-009, Condition No. 26.
DEG-4 DEG-5 DEG-6	19) When requested by MassDEP, the Permittee shall conduct compliance testing at the outlet of the Zurns to demonstrate compliance with the ammonia (NH_3) emission limit of 3.0 ppmvd of NH_3 corrected to 15% O_2 associated with the SCR system. The Permittee shall conduct all emissions testing in accordance with the Department's "Guidelines for Source Emissions Testing" and in accordance with Environmental Protection Agency reference test methods as specified in 40 CFR 60 Appendix A or by another method to the satisfaction of the Department. The Permittee shall notify the Northeast Regional office at the letterhead address, attention BWP Permit Chief, at least two weeks in advance of the scheduled test date, so that MassDEP personnel can witness said testing, if deemed necessary according to 310 CMR 7.13.
	20) The Permittee shall conduct initial compliance test for CO within 180 days of May 3, 2014, the required compliance date which yields a test date deadline of October 30, 2014. The Permittee shall notify and submit to the MassDEP a proposed test protocol for MassDEP review and approval at least 60 days prior to the test date or submit results from a previous stack test for review and approval by the Administrator as described in 40 CFR 63.6610(d). Subsequent compliance testing shall be required every 8,760 operating hours or every three years, whichever is first as required by 40 CFR Part 63, Subpart ZZZZ.
CTG-1,CTG-2	21) The Permittee shall comply with its *Parametric Emissions Monitoring Plan - Combustion Turbines and Heat Recovery Steam Generators* for NOx, NH3, CO, VOC, and PM/PM10 based on initial compliance test results as required by Final Approval MBR-02-COM-004.
HRSG-100	22) The Permittee shall monitor the urea injection rate and the SCR temperature for each unit as required by Final Approval MBR-02-COM-004.
HRSG-200	23) The Permittee shall maintain continuous monitors and alarm systems for monitoring and recording of the temperature at the inlet to the SCR and CO catalysts as required by Final Approval MBR-02-COM-004 and 40 CFR Part 64.
	24) In accordance with 310 CMR 7.04(4)a, the Permittee shall inspect and maintain CTG/HRSGs in accordance with manufacturer's recommendations and test for efficient operation at least annually.
EDG1 EDG-2 FP-1	25) The Permittee shall monitor monthly hours of operation, gallons of fuel used, fuel type and heating value, and a monthly calculation of the total hours operated and gallons of fuel used in the previous 12 months shall be kept on site as required by Regulation 310 CMR 7.02(8)(i)2.
	26) Effective 5/3/2013: the Permittee shall monitor the following maintenance items: a) Track the hours of operation of each unit to ensure the change of oil every 500 hours of operation or annual, whichever comes first(the oil change can be extended if The Total Base Number is greater than 30% of the Total Base Number when the oil was new, the viscosity has not changed by more than 20% of the viscosity of the oil when new and the water content is less than 0.5% by volume) as allowed by ; b) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first and replace as necessary, as required by 40 CFR Part 63, Subpart ZZZZ.

Table 4	
EU	**Monitoring and Testing Requirements**
CTG-3/ HRSG-300	27) The Permittee shall ensure that the unit is constructed to accommodate the emissions (compliance) testing requirements as stipulated in 40 CFR Part 60 Appendix A. The two outlet sampling ports (90 degrees apart from each other) for the emission unit must be located at a minimum of one half duct diameter upstream and two duct diameters downstream of any flow disturbance. In addition, the Permittee shall facilitate access to the sampling ports and testing equipment by constructing platforms, ladders, or other necessary equipment as referenced in Regulation 310 CMR 7.13(2) – Stack Testing.
	28) In accordance with Approval No. NE-14-013, the Permittee shall ensure that compliance testing of the unit is completed within 180 days after initial firing of CTG-3/HRSG-300 to demonstrate compliance with the emission limits specified in Table 3 of this Operating Permit. All emissions testing shall be conducted in accordance with
	MassDEP's "Guidelines for Source Emissions Testing" and in accordance with EPA reference test methods as specified in 40 CFR Part 60, Appendix A and 40 CFR Part 51, Appendix M, or by another method which has been approved in writing by MassDEP. Permittee shall schedule the compliance testing such that MassDEP personnel can witness it.
	29) In accordance with Approval No. NE-14-013, the Permittee shall conduct initial compliance tests of the unit to document actual emissions of CTG-3/HRSG-300 so as to determine its compliance status with the emission limits (in lb/hr, lb/MMBtu, and ppmvd) in Table 3 for the pollutants listed below: • NOx • CO • VOC • SO2 • PM10 • PM2.5 • NH3 • H2SO4 • CO2 Testing for these pollutants for CTG-3/HRSG-300 shall be conducted at four (4) load conditions with and without duct firing that cover the entire normal operating range: the minimum emissions compliance load (MECL); 75 percent load; 85 percent load; and 100 percent load.
	30) In accordance with Approval No. NE-14-013, the Permittee shall install, calibrate, test and operate a Data Acquistion and Handling System(s) (DAHS) and CEMS, serving CTG-3/HRSG-300 to measure and record the following emissions: • O_2 • NO_x • CO • NH_3
	31) In accordance with Approval No. NE-14-013, the Permittee shall ensure that all emission monitors and recorders serving CTG-3/HRSG-300 comply with MassDEP approved performance and location specifications, and conform with the EPA monitoring specifications at 40 CFR 60.13 and 40 CFR Part 60 Appendices B and F.
	32) In accordance with Approval No. NE-14-013, the Permittee shall ensure that the subject CEMS are equipped with properly operated and properly maintained audible and visible alarms to activate whenever emissions from the unit exceed the short term limits established in Table 3 of this operating permit.
	33) In accordance with Approval No. NE-14-013, the Permittee shall operate each CEMS serving CTG-3/HRSG-300 at all times except for periods of CEMS calibration checks, zero and span adjustments, preventative maintenance, and periods of unavoidable malfunction.
	34) In accordance with Approval No. NE-14-013, the Permittee shall obtain and record emissions data from each CEMS serving CTG-3/HRSG-300 for at least ninety five (95) percent of each emission unit's operating hours per quarter, except for periods of CEMS calibration checks, zero and span adjustments, and preventive maintenance.
	35) In accordance with Approval No. NE-14-013, all periods of excess emissions occurring from the unit, even if attributable to an emergency/malfunction, start-up/shutdown or equipment cleaning, shall be quantified and included by the Permittee in the compilation of emissions and determination of compliance with the emission limits as stated in Table 3 of this Operating Permit. ("Excess Emissions" are defined as emissions which are in excess of the emission limits as stated in Table 3). An exceedance of emission limits in Table 3 due to an emergency or malfunction shall not be deemed a federally permitted release as that term is used in 42 U.S.C. Section 9601(10).

Table 4	
EU	**Monitoring and Testing Requirements**
CTG-3/ HRSG-300	36) In accordance with Approval No. NE-14-013,the Permittee shall use and maintain its CEMS serving CTG-3/HRSG-300 as "direct-compliance" monitors to measure NO_x, CO, NH_3, and O_2. "Direct-compliance" monitors generate data that legally documents the compliance status of a source.
	37) In accordance with Approval No. NE-14-013, the Permittee shall install, operate, and maintain a fuel metering device and recorder for CTG-3 that records natural gas consumption in standard cubic feet (scf).
	38) In accordance with Approval No. NE-14-013, the Permittee shall install, operate, and maintain a fuel metering device and recorder for duct burner HRSG-300 that records natural gas consumption in standard cubic feet (scf).
	39) In accordance with Approval No. NE-14-013, the Permittee shall install, operate, and maintain a fuel metering device and recorder for CTG-3 that records ULSD consumption in gallons.
	40) In accordance with Approval No. NE-14-013, Permittee shall monitor the quantity and sulfur content of ULSD fuel oil burned in CTG-3.
	41) In accordance with Approval No. NE-14-013, the Permittee shall monitor fuel heat input rate (MMBtu/hr, HHV) and total fuel heat input (mmBtu) for CTG-3/HRSG-300.
	42) In accordance with Approval No. NE-14-013, the Permittee shall monitor each date and daily hours of operation and total hours of operation for CTG-3/HRSG-300 per month and twelve month rolling period.
	43) In accordance with Approval No. NE-14-013, the Permittee shall ensure that initial compliance tests of the unit are conducted for startup and shutdown periods as defined in the Permittee's Application for CTG-3/HRSG-300.
	Emission data generated from this testing shall be made available for review by MassDEP.
	44) In accordance with Approval No. NE-14-013, whenever CTG-3 is operating during start-ups and shutdowns, the VOC emissions shall be considered as occurring at the rate determined in the most recent compliance test for start-up/shutdown conditions.
	45) In accordance with Approval No. NE-14-013, if CTG-3 is operating at the MECL or greater, and if its CO emissions are below the CO emission limit at the given combustion turbine operating conditions, its VOC emissions shall be considered as meeting the emission limits contained in this Plan Approval, subject to correlation as contained in Condition 46 below.
	46) In accordance with Approval No. NE-14-013, if CTG-3 is operating at the MECL or greater, and if its CO emissions are above the CO emission limit at the given combustion turbine operating conditions, its VOC emissions shall be considered as occurring at a rate determined by the equation: VOCactual = VOClimit x (COactual/COlimit), pending the outcome of compliance testing, after which a VOC/CO correlation curve for CTG-3 will be developed and used for VOC compliance determination purposes.
	47) In accordance with Approval No. NE-14-013, the Permittee shall monitor the natural gas and ULSD consumption of CTG-3 and DB (natural gas only) in accordance with 40 CFR Part 60 Subpart KKKK utilizing a fuel flow monitoring system as approved by MassDEP.
	48) The Permittee shall monitor the sulfur content of the fuel combusted by CTG-3/HRSG-300 in accordance with 40 CFR Part 60 Subpart KKKK, or pursuant to any alternative fuel monitoring schedule developed in accordance with 40 CFR Part 60 Subpart KKKK.
	49) In accordance with Approval No. NE-14-013, the Permittee shall install and operate continuous monitors fetted with alarms to monitor continuously the temperatures at the inlets to the SCR and oxidation catalysts serving CTG-3/HRSG-300. In addition, the Permitte shall monitor the combustion turbine inlet and ambient temperatures for CTG-3.
	50) In accordance with Approval No. NE-14-013, the Permittee shall monitor the load, start-up and shutdown duration, and mass emissions (lb/event) during start-up and shutdown periods of CTG-3.
	51) In accordance with Approval No. NE-14-013, the Permittee shall monitor the operation of CTG-3/HRSG-300, in accordance with the surrogate methodology or parametric monitoring developed during the most recent compliance test concerning PM, PM_{10}, and $PM_{2.5}$ emission limits.
Facility -wide	52) The Permittee shall 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.
	53) The Permittee shall use and maintain your Continuous Opacity Monitoring System (COMS) as "direct-compliance" monitors as required in Final Approval MBR-95-COM-009 and Final Approval MBR-02-COM-004.
	54) The Permittee shall conduct Emissions Compliance Testing (Stack Testing), in accordance with 310 CMR 7.13, 310 CMR 7.19(13)(c), and 40 CFR Part 60, Appendix A (EPA Reference Test Methods) or any other testing if and when requested by MassDEP or EPA.
	55) The Permittee may determine opacity in accordance with EPA Test Method 9, as specified in 40 CFR Part 60, Appendix A, if and when requested by MassDEP or EPA. This method shall also apply to any detached plumes.

Table 4	
EU	**Monitoring and Testing Requirements**
Facility-wide	56) The Permittee shall demonstrate compliance with 310 CMR 7.19 by monitoring all data relevant to 310 CMR 7.19(13)(d). This monitoring shall include, but not be limited to, Continuous Emission Monitoring System (CEMS) performance evaluations, maintenance, and adjustments, and also excess emissions, and on a daily basis: type fuel(s) combusted each day, heat content of each fuel, and the total heating value of the fuel consumed for each day.
	57) The Permittee shall use and maintain its CEMS as "direct-compliance" monitors to determine the subject facility's NOx emission rate in pounds per calendar day. As such, the Permittee is required to comply with the Quality Assurance requirements contained in 40 CFR Part 60, Appendix B, Specification 6 and Appendix F. The CEMS shall be maintained per NOx RACT emission averaging requirements as referenced in 310 CMR 7.19(13), 7.19(14),Appendix B(4), and Final Approvals MBR-94-COM-017, MBR-95-COM-009 and MBR-02-COM-004. In addition, monitor the actual "bubble" NOx emission limitation in pounds per day and shall determine the allowable "bubble" NOx emissions (ALE_{NOx})[1] in pounds per day.
	58) The Permittee shall, in accordance with 310 CMR 7.19(13)(b)(10), obtain valid NOx data for at least 75% of the hours per day, 75% of the days per month, and 90% of the hours per quarter during which an emission unit is operating.
	59) The Permittee shall, in accordance with 310 CMR 7.00: Appendix C(9)(b)2., monitor sulfur content of each new shipment of fuel oil received. Compliance with sulfur content can be demonstrated through testing or maintaining a shipping receipt from the fuel supplier. The shipment certification or testing of sulfur content of 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.
	60) In accordance with 310 7.04(2)(a), no person shall cause, suffer, allow, or permit the burning of any grade oil or solid fuel in any fuel utilization facility having an energy input capacity rated by MassDEP equal to or greater than 40 MMBtu per hour, unless such facility is equipped with a smoke density sensing instrument and recorder which are properly maintained in an accurate operating condition, operates continuously and is equipped with an audible alarm to signal the need for combustion equipment adjustment or repair when the smoke density is equal to or greater than No. 1 of the Chart. Such smoke density equipment shall be available for inspection at reasonable times by a representative of MassDEP. Such inspection may include the review of recording charts which must be retained and made available for a period of one year from the date of use. The Opacity COMS shall meet Performance Specification 1 of 40 CFR Part 60, Appendix B.
	61) The Permittee shall ensure that any removal and remediation of asbestos shall be done in accordance with 310 CMR 7.15 and 310 CMR 4.00.
	62) The Permittee shall, pursuant to MassDEP's authority through 310 CMR 7.00: Appendix C(9)(b)2., monitor unit operations to ensure continuous compliance with applicable emission limits.
	63) The Permittee shall, 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 MassDEP'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 (c) to be conducted in the presence of a representative of MassDEP when such is deemed necessary. Pursuant to MassDEP's authority through 310 CMR 7.00: Appendix C(9)(b)2., conduct any other testing or testing methodology if and when requested by MassDEP or EPA.
	64) The Permittee shall, in accordance with 310 CMR 7.71(1) and Appendix C(9) establish and maintain data systems or record keeping practices (e.g. fuel use records, SF6 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 Key
EU = Emission Unit
PM = Total Particulate Matter, $PM_{2.5}$ = Particulate Matter less than or equal to 2.5 microns
CO = Carbon Monoxide, CO_2 = Carbon Dioxide, NH_3 = Ammonia, H_2SO_4 = Sulfuric Acid, NO_x Nitrogen Oxide, SO_2 = Sulfur Dioxide
TPY = tons per consecutive 12-month rolling period, ULSD = Ultra low sulfur diesel fuel oil, CFR = Code of Federal Regulations
CMR = Commonwealth of Massachusetts Regulations, M.G.L. = Massachusetts General Laws, mmBtu/hr = million British Thermal Units per hour, scf = standard cubic feet, gal = gallons, CEMS = continuous emissions monitoring system, COMS = continuous opacity monitoring system

Table 4 Footnotes:

1 ALE_{NOx} = A + B + C + D, where A is the allowable NOx emitted from the six Mirrless engines (DEG-1,2,3,4,5,6); B is the allowable NOx emitted from the three PSG boilers (PSG-1, PSG-2 and 3); C is the allowable NOx emitted from

the two Zurn afterburners (Zurn-1,2); and D is the allowable NOx emitted from the three Combustion Turbines and associated Duct Burners (CTG-1-3 and HRSG-100-300). A, B, C, and D are in units of pounds of NOx per day.

Table 5

EU	Record Keeping Requirements
PSG-1	1) The Permittee shall maintain adequate records on site whenever fuel usage is switched to ULSD fuel oil usage in this EU. These records shall indicate the date and time of the fuel switch, the duration of the fuel switch, the amount of ULSD fuel oil consumed during each fuel switch, and the date and time for return to natural gas firing as per Plan Approval MBR-08-COM-003.
	2) The Permittee shall maintain adequate records on-site to demonstrate compliance with the emission limits as stated in Table 3 of this Permit. At a minimum, the information shall include the calculated EU emissions for the month as well as the prior 11 months as per plan approval MBR-08-COM-003. The MassDEP approved On-Site Record Keeping Form can be downloaded at http://www.mass.gov/dep/air/approvals/reshome.htm.
	3) The Permittee shall maintain on site and accessible at or near PSG-1, at all times, a copy of its Approval letter (MBR-08-COM-003) and the Standard Operating and Maintenance Procedures (SOMP) for all air-emissions-related equipment.
	4) The Permittee shall quantify all periods of excess emissions, even if attributable to an emergency/malfunction, startup/shutdown or equipment cleaning in the determination of annual emissions and compliance with the emission limits as stated in Table 3 as per Plan Approval MBR-08-COM-003.
	5) The Permittee shall obtain and maintain at the facility fuel oil receipts from the fuel supplier as required in 40 CFR 60.49b(r).
PSG-2, PSG-3, Zurn-1, Zurn-2	6) The Permittee shall maintain records for the annual stack test for CO emissions prior to October 1st of each year as required by 310 CMR 7.19(13) and in Final Approval MBR-95-COM-009.
	7) The Permittee shall maintain records for the testing of units Zurn-1 or Zurn-2, if ULSD fuel oil is fired in either unit for more than 480 hours in any calendar year as required by Final Approval MBR-95-COM-009.
	8) The Permittee shall maintain records for the number of hours ULSD is utilized to demonstrate that the facility is maintaining the restrictions as required in Table 3 and Final Approval MBR-95-COM-009.
	9) The Permittee shall, in accordance with 310 CMR 7.04(4)(a), maintain records of the annual tests for efficient operation.
DEG-1, 2, 3, 4, 5, 6	10) The Permittee shall maintain records of the particulate emission testing program, which is conducted every 5 years to demonstrate that the combined DEG/Zurn-1 or Zurn-2 exhaust is in compliance with the applicable emission rates contained in Final Approval MBR-95-COM-009.
	11) The Permittee shall maintain record of the CO emission testing program along with all notifications, malfunctions, and deviations on-site and available for MassDEP review as required by 40 CFR Part 63, Subpart ZZZZ.
CTG-1 CTG-2 HRSG-100 HRSG-200	12) The Permittee shall maintain compliance records including fuel usage rates, emissions test results, monitoring equipment data (flue gas emissions, SCR and CO control system inlet temperatures, turbine inlet and ambient temperatures) and reports as referenced in Final Approval MBR-02-COM-004.
	13) The Permittee shall record routine maintenance activities including the type or description of the maintenance performed and the date and time the work was completed as referenced in Final Approval MBR-02-COM-004.
	14) The Permittee shall record all malfunctions of control and monitoring equipment including date and time, description of malfunction, corrective action(s) taken, date and time corrective action(s) were initiated, date and time corrective action(s) were completed and equipment was returned to compliance as referenced in Final Approval MBR-02-COM-004.
	15) The Permittee shall ensure that a copy of Approval letter MBR-02-COM-004 for the CTG-1 and 2, HRSG-100 and 200 is available in the Control Room.
	16) The Permittee shall, in accordance with 40 CFR 60.334(g), maintain a parameter monitoring plan and keep it on-site. The plan shall include the parameter(s) monitored and the acceptable range(s) of the parameter(s) as well as the basis for designating the parameter(s) and acceptable range(s).

Table 5	
EU	**Record Keeping Requirements**
CTG-1 CTG-2 HRSG-100 HRSG-200	17) The Permittee shall maintain records of the monitoring requirements of 40 CFR 60.334(h)(3)and 60.334(i)(1)to determine sulfur content of the fuel being fired, so that compliance status with 40 CFR 60.333 can be determined.
	18) The Permittee shall maintain a record of nitrogen oxides excess emissions as defined in 40 CFR 60.334(j)(1)(i) and incorporated herein by reference so that compliance with the excess emissions reporting requirement in Table 6 of this Permit can be maintained.
	19) The Permittee shall maintain a record of any period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 percent so that compliance with the excess emissions reporting requirement 40 CFR 60.334(j) can be maintained.
	20) The Permittee shall maintain records of compliance status of SO_2 and NO_x emission limits in accordance with 40 CFR 60.334(j)(1) and 60.334(j)(2) and 60.335.
	21) The Permittee shall, in accordance with 40 CFR 60.7(b), maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
HRSG-100	22) The Permittee shall record the amount of natural gas fuel combusted during each operating day as per 40 CFR Part 60.48c(i), Subpart Dc.
HRSG-200	23) The Permittee shall, in accordance with 310 CMR 7.04(4)(a), maintain records of the HRSGs' annual tests for efficient operation.
EDG-1 EDG-2 FP-1	24) The Permittee shall maintain monthly logs of hours of operation, gallons of fuel used, fuel type and heating value, and a monthly calculation of the total hours operated and gallons of fuel used in the previous 12 months shall be kept on site as required by Regulation 310 CMR 7.02(8)(i)2.
	25) The Permittee shall keep records such as purchase orders, invoices and other documents to support information in the monthly logs as required by Regulation 310 CMR 7.02(8)(i)2.
	26) The Permittee shall maintain monthly logs and records for subject units shall be made available to MassDEP personnel upon request. The owner or operator shall certify that the log is accurate and true in accordance with 310 CMR 7.01(2) and Regulation 310 CMR 7.02(8)(i)2.
	27) The Permittee shall keep records of the following maintenance items: a) Track the hours of operation of each unit to ensure the change or testing of oil every 500 hours of operation or annual, whichever comes first; b) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first and replace as necessary as required by 40 CFR Part 63, Subpart ZZZZ.
CTG-3/ HRSG-300	28) The Permittee shall maintain records of CTG-3/HRSG-300's hourly fuel heat input rate (mmBtu/hr, HHV), total fuel heat input (mmBtu), and natural gas consumption (scf) and ULSD (gal) per month and twelve month rolling period basis as required by Plan Approval No. NE-14-013.
	29) The Permittee shall maintain records of each date and daily hours of operation and total hours of operation of CTG-3/HRSG-300 per month and twelve month rolling period as required by Plan Approval No. NE-14-013.
	30) The Permittee shall maintain on-site permanent records for a period of 5 years of output from all continuous monitors (including CEMS) for flue gas emissions and natural gas consumption (scf) as required by Plan Approval No. NE-14-013.
	31) The Permittee shall maintain a log to record problems, upsets or failures associated with the subject emission control systems, DAHS and CEMS, serving this emission unit as required by Plan Approval No. NE-14-013.
	32) The Permittee shall continuously estimate and record VOC emissions on the DAHS using the CO/VOC correlation curve developed from the most recent compliance test as referenced in Plan Approval No. NE-14-013.
	33) The Permittee shall continuously estimate and record PM, PM_{10}, and $PM_{2.5}$ emissions on the DAHS using the surrogate methodology or parametric monitoring derived from the most recent compliance test as required by Plan Approval No. NE-14-013.

Table 5	
EU	**Record Keeping Requirements**
CTG-3/ HRSG-300	34) The Permittee shall maintain records of the load, start-up and shutdown duration, and mass emissions (lb/event) during start-up and shutdown periods of CTG-3/HRSG-300 as required by Plan Approval No. NE-14-013.
	35) The Permittee shall maintain records of the sulfur content of the fuel combusted by CTG-3and DB at the frequency required pursuant to 40 CFR Part 60 Subpart KKKK, or pursuant to any alternative fuel monitoring schedule that is issued in accordance with 40 CFR Part 60 Subpart KKKK.
	36) The Permittee shall maintain continuous records of SCR and oxidation catalyst inlet temperatures, combustion turbine inlet temperatures and ambient temperatures as required by Plan Approval No. NE-14-013.
	37) The Permittee shall maintain the SOMP for the urea handling system serving CTG-3/HRSG-300 in a convenient location and make them readily available to all employees as required by Plan Approval No. NE-14-013.
	38) The Permittee shall maintain a copy of the Plan Approval, underlying Application, and the most up-to-date SOMP for CTG-3/HRSG-300 required by Plan Approval No. NE-14-013.
Facility-wide	39) The Permittee shall, in accordance with 310 CMR 7.00:Appendix C(10)(b), maintain a record keeping system for this facility to be established on site. All such records shall be maintained up-to-date such that year-to-date information is readily available for MassDEP examination upon request and shall be kept on site for a minimum of five (5) years. Record keeping shall, at a minimum, include: a) Compliance records sufficient to demonstrate that emissions from each emission unit have not exceeded what is allowed by this Operating Permit. Such records shall include, but are not limited to, fuel usage rates, emissions test results, monitoring equipment data and reports. b) Maintenance: A record of routine maintenance activities performed on this EU and its 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) Malfunctions: A record of all malfunctions of each emission unit and its monitoring equipment including, at a minimum: the date and time the malfunction occurred; a description of the malfunction and the corrective action taken; the date and time corrective actions were initiated; and the date and time corrective actions were completed and the proposed equipment was returned to compliance.
	40) The Permittee shall maintain records such that information may be compiled for the annual preparation of a Source Registration/Emission Statement Form as required by 310 CMR 7.12.
	41) The Permittee shall maintain records for the Continuous Opacity Monitoring System (COMS) as required in Final Approval MBR-95-COM-009.
	42) The Permittee shall maintain records for Emissions Compliance Testing (Stack Testing), in accordance with 310 CMR 7.13, 310 CMR 7.19(13)(c), and 40 CFR Part 60, Appendix A (Method 7E for NOx, Methods 1 to 5 for PM, Method 3A for Oxygen (O_2)) or any other testing if and when requested by MassDEP or EPA.
	43) The Permittee shall maintain records for opacity in accordance with EPA Test Method 9, as specified in 40 CFR Part 60, Appendix A, if and when requested by MassDEP or EPA. This method shall also apply to any detached plumes.
	44) The Permittee shall maintain records of all data relevant to 310 CMR 7.19(13)(d). This data shall include, but not be limited to, CEMS performance evaluations, maintenance, and adjustments, and also excess emissions, daily fuel data, and fuel supplier certifications.
	45) The Permittee shall maintain records of the CEMS as "direct-compliance" monitors to determine the subject facility's NOx emission rate in pounds per calendar day. As such, the Permittee is required to comply with the Quality Assurance requirements contained in 40 CFR Part 60, Appendix B, Specification 6 and Appendix F. The CEMS shall be maintained per NOx RACT emission averaging requirements as referenced in 310 CMR 7.19(13), 7.19(14), Appendix B(4), and Final Approvals MBR-94-COM-017 and MBR-95-COM-009. In addition, maintain records for the actual "bubble" NOx emission limitation in pounds per day and determine the allowable "bubble" NOx emissions (AlE_{NOx})[1] in pounds per day.
	46) The Permittee shall, in accordance with 310 CMR 7.00: Appendix C(9)(b)2., maintain records for sulfur content of each new shipment of fuel oil received.
	47) The Permittee shall, in accordance with 310 CMR 7.04(4)(a), maintain records of the fuel utilization facility annual tests for efficient operation.
	48) The Permittee shall, pursuant to MassDEP's authority through 310 CMR 7.00: Appendix C(9)(d), maintain the

Table 5	
EU	**Record Keeping Requirements**
Facility-wide	test results of any other testing or testing methodology required by MassDEP or EPA on-site.
	49) The Permittee shall keep copies of Source Registration/Emission Statement Forms submitted annually to MassDEP as required per 310 CMR 7.12(3)(b).
	50) The Permittee shall, in accordance with 310 CMR 7.71 (6) (b) and (c), the Permittee shall keep on site at the facility documents of the methodology and data used to quantify emissions for a period of 5 years from the date the document is created. The Permittee shall make these documents available to MassDEP upon request (State only requirement).
	51) In accordance with Approval No. NE-14-013, the Permittee shall maintain monthly records to demonstrate the Facility's compliance status regarding the Facility-Wide emission limits (TPY) specified in Table 3. Records shall include actual emissions for the month as well as for the previous 11 months. (The MassDEP approved format can be downloaded at http://www.mass.gov/eea/agencies/massdep/air/approvals/limited-emissions-record-keeping-and-reporting.html#WorkbookforReportingOn-SiteRecordKeeping in Microsoft Excel format.)

Table 5 Key
EU = Emission Unit
PM = Total Particulate Matter, $PM_{2.5}$ = Particulate Matter less than or equal to 2.5 microns
CO = Carbon Monoxide, CO_2 = Carbon Dioxide, NH_3 = Ammonia, H_2SO_4 = Sulfuric Acid, NO_x Nitrogen Oxide, SO_2 = Sulfur Dioxide
TPY = tons per consecutive 12-month rolling period, ULSD = Ultra low sulfur diesel fuel oil, CFR = Code of Federal Regulations
CMR = Commonwealth of Massachusetts Regulations, HHV = higher heating value, mmBtu/hr = million British Thermal Units per hour,
scf = standard cubic feet, gal = gallons, CEMS = continuous emissions monitoring system, COMS = continuous opacity monitoring system
DAHS = data acquisition system

Table 5 Footnotes:

1 ALE_{NOx} = A + B + C + D, where A is the allowable NOx emitted from the six Mirrlees engines (DEG-1,2,3,4,5,6); B is the allowable NOx emitted from the three PSG boilers (PSG-1, PSG-2 and 3); C is the allowable NOx emitted from the two Zurn afterburners (Zurn-1,2); and D is the allowable NOx emitted from the three Combustion Turbines and associated Duct Burners (CTG-1-3 and HRSG-100-300). A, B, C, and D are given in units of pounds of NOx per day.

Table 6	
EU	**Reporting Requirements**
PSG-1	1) All notifications and reporting as required in Conditional Approval MBR-08-COM-003 shall be made to the attention: Department of Environmental Protection/Bureau of Air and Waste Northeast Regional Office Attn: Bureau of Air and Waste Permit Chief.
	2) The Permittee shall notify MassDEP by telephone, fax, or email as soon as possible, but in any case no later than three (3) business days after the occurrence of any upsets or malfunctions to this EU and related equipment which results in an excess emission to the air and/or a condition of air pollution as required in Conditional Approval MBR-08-COM-003.
	3) The Permittee shall to submit a quarterly report for this EU to MassDEP as required in Conditional Approval MBR-08-COM-003. The report shall be submitted by the 30th day of the following month after the end of each calendar quarter and shall contain at least the following information: a) The EU's CEMS excess emission data, in a format acceptable to MassDEP. b) For each period of all excess emissions or excursions from allowable operating conditions for this EU, MATEP shall state the duration, cause, the response taken, and the amount of excess emissions. Periods of excess emissions shall include periods of start-up, shutdown, malfunction, emergency, equipment cleaning, and upsets or failures associated with the emission control system, and CEMS.
	4) The Permittee shall keep all required records on-site for five years and said records shall be made available to representatives of MassDEP or EPA personnel upon request.
PSG-2, PSG-3, Zurn-1, Zurn-2	5) The Permittee shall submit annual compliance test report for CO emissions in accordance with 310 CMR 7.19(13)(c) within 60 days after completion of the test program.
	6) If distillate oil is fired in either unit Zurn-1 or Zurn-2 for more than 480 hours in any calendar year, then the Permittee shall submit a particulate emission test protocol within 90 days of the end of that year for the testing of that unit. Proceed to then test that unit in accordance with the approved protocol and report the results of this testing in accordance with MassDEP's specified schedule as required by Final Approval MBR-95-COM-009.

Table 6	
EU	**Reporting Requirements**
PSG-2 PSG-3 Zurn-1 Zurn-2	7) The Permittee shall submit to this Regional Office an annual written report by January 30th of the year following the year of record, which states the number of hours No. 2 fuel oil was combusted in PSG-2, 3 and Zurn-1,2 for said record year as required by Final Approval MBR-95-COM-009.
DEG-1,2,3,4,5,6	8) The Permittee shall submit a compliance test report for the particulate emission testing program every 5 years to demonstrate the compliance status of the combined DEG/Zurn exhaust with the applicable emission rates as required by Final Approval MBR-95-COM-009.
	9)The Permittee, after initial commencement of operation, shall submit updated versions of the SOMP to MassDEP no later than 30 days prior to the occurrence of a significant change which then must be approved by MassDEP as required by Final Approval MBR-95-COM-009.
	10) All periods of excess emission must be quantified by the Permittee and included in the determination of emissions and compliance with the emission limits as required by Final Approval MBR-02-COM-004.
	11) Effective 5/3/2014: the Permittee shall submit a compliance test report for the carbon monoxide emission testing program every 3 years to demonstrate the compliance status with the MACT RICE requirements, 40 CFR Part 63, Subpart ZZZZ.
	12) Effective 5/3/2014: the Permittee shall submit semiannual compliance reports to this MassDEP Office by July 31st for the January 1st through June 30th compliance periods and by January 31st for the July 1st through December 31st compliance periods as required by 40 CFR Part 63, Subpart ZZZZ.
EDG-1 EDG-2 FP-1	13) The Permittee shall notify MassDEP of this unit's identification under 310 CMR 7.00 in the required submittal of the facility's emission statement pursuant to 310 CMR 7.12.
CTG-3/ HRSG-300	14) The Permittee must obtain written MassDEP approval of an emissions test protocol prior to initial compliance emissions testing of CTG-3/HRSG-300 at the Facility. The Permittee shall submit a pre-test protocol at least 30 days prior to the compliance emissions testing. The protocol shall include a detailed description of sampling port locations, sampling equipment, sampling and analytical procedures, and operating conditions for any such emissions testing. In addition, the protocol shall include procedures for: a) the required CO and VOC correlation for CTG-3/HRSG-300; and b) a parametric monitoring strategy to ensure continuous monitoring of PM, PM10, and PM2.5 emission from CTG-3/HRSG-300 as required by Plan Approval No. NE-14-013.
	15) The Permittee shall submit a final emissions test results report to MassDEP within 45 days after completion of the initial compliance emissions testing program as required by Plan Approval No. NE-14-013.
	16) A QA/QC program plan for the CEMS serving CTG-3/HRSG-300 must be submitted so as to conform with 40 CFR Part 60 Appendices B and F in writing, at least 30 days prior to commencement of commercial operation of the subject emission units. MassDEP must approve the QA/QC program prior to its implementation. Subsequent changes to the QA/QC program plan shall be submitted to MassDEP for MassDEP approval prior to their implementation as required by Plan Approval No. NE-14-013.

Table 6	
EU	**Reporting Requirements**
	17) The Permittee shall submit a quarterly Excess Emissions Report to MassDEP 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. The report shall contain at least the following information as required by Plan Approval No. NE-14-013: a) The Facility CEMS excess emissions data, in a format acceptable to MassDEP. b) For each period of excess emissions or excursions from allowable operating conditions for the emission unit(s), the Permittee shall list the duration, cause, the response taken, and the amount of excess emissions. Periods of excess emissions shall include periods of start-up, shutdown, malfunction, emergency, equipment cleaning, and upsets or failures associated with the emission control system or CEMS. ("Malfunction" means any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions. "Emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of this source, including acts of God, which situation would require immediate corrective action to restore normal operation, and that causes the source to exceed a technology based limitation under the Plan Approval, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operations, operator error or decision to keep operating despite knowledge of these things.) c) A tabulation of periods of operation of each emission unit and total hours of operation of each emission unit during the calendar quarter.
CTG-3/ HRSG-300	18) After completion of the initial compliance emissions testing program, the Permittee shall submit information for MassDEP review that documents the actual emissions impacts generated by CTG-3/HRSG-300 during start-up and shutdown periods. This information shall be submitted to MassDEP as part of the final emissions test results report as required by Plan Approval No. NE-14-013.
	19) The Permittee shall submit to MassDEP, in accordance with the provisions of Regulation 310 CMR 7.02(5)(c), plans and specifications for CTG-3/HRSG-300 and duct burner, the SCR control system, the oxidation catalyst control system, and the CEMS, and DAHS, once the specific information has been determined, but in any case not later than 30 days prior to commencement of construction/installation of each component of the emission unit as required by Plan Approval No. NE-14-013.
	20) The Permittee shall submit, in writing, the following notifications to MassDEP within fourteen (14) days after each occurrence as required by Plan Approval No. NE-14-013.: a) date of commencement of construction of the CTG-3/HRSG-300; b) date when construction has been completed of the CTG-3/HRSG-300; c) date of initial firing of the CTG-3/HRSG-300; d) date when the CTG-3/HRSG-300 is either ready for commercial operation or has commenced commercial operation, whichever is sooner.
	21) The Permittee may commence construction of the emission units. However operation of the proposed equipment cannot occur prior to final approval of the modification to the Operating Permit.
	22) The Permittee must notify MassDEP by telephone or fax or e-mail [nero.air@massmail.state.ma.us] as soon as possible, but in any case no later than three (3) business days after the occurrence of any upsets or malfunctions to the CTG-3/HRSG-300 equipment, air pollution control equipment, or monitoring equipment which result in an excess emission to the air and/or a condition of air pollution as required by Plan Approval No. NE-14-013.
	23) In accordance with Approval No. NE-14-013, the Permittee shall submit to MassDEP a SOMP for the Unit and associated control and monitoring/recording systems at the Facility no later than 30 days prior to commencement of commercial operation of the unit. Thereafter, the Permittee shall submit updated versions of the SOMP to MassDEP no later than thirty (30) days prior to the occurrence of a significant change. MassDEP must approve of significant changes to the SOMP prior to the SOMP becoming effective. The updated SOMP shall supersede prior versions of the SOMP.

Table 6	
EU	**Reporting Requirements**
Facility-wide	24) The Permittee shall submit to this Regional Office on a quarterly basis the "bubble" daily emission calculations of 1) actual NOx emitted in pounds per calendar day, 2) the ALE_{NOx} emission limitation in pounds per calendar day, and 3) the difference between the actual NOx emission and AlE_{NOx} over each calendar day (report whether or not the "bubble" was in compliance with respect to 3) above). Incorporate certification of any purchased Emission Reduction Credits (ERCs) to meet compliance and the entity from which the purchase was made. This submittal must be made no later than 30 days after the end of the quarter for which the report is being prepared. Any exceedance of the "bubble" emission limitation must be recorded and submitted to include the date of exceedance and quantity of excess emissions and reported to MassDEP in the next quarterly report as required by Final Approval MBR-94-COM-017.
	25) Submit a Source Registration/Emission Statement form to MassDEP on an annual basis as required by 310 CMR 7.12.
	26) The Permittee shall, in accordance with 310 CMR 7.00: Appendix C(10)(c), report a summary of all monitoring data and related supporting information to MassDEP at least every six months (January 30 and July 30 of each calendar year).
	27) Should the natural gas supply be interrupted, the Permittee shall notify MassDEP no later than the next business day by FAX or by electronic mail at NERO.Air@massmail.state.ma.us. This written notification shall indicate the date and time of interruption, expected duration of interruption, and anticipated date and time when a natural gas supply to the facility will resume. The Permittee shall notify MassDEP, as required above, when natural gas combustion has resumed at the facility as required by Final Approval MBR-95-COM-009.
	28) The Permittee shall promptly report to MassDEP all instances of deviations from permit requirements (including but not limited to testing for efficient operation, ignition timing, fuel sulfur and fuel ash content, emission limitations/standards, Standard Operating and Maintenance Procedures) by telephone or fax, within three days of discovery of such deviation, as provided in 310 CMR 7.00: Appendix C(10)(f). See General Condition 25.
	29) The Permittee shall submit updates to MassDEP as necessary concerning the monitoring of NOx emission rates which shall address, but not necessarily be limited to, descriptions of the equipment specifications of all equipment to be employed, the location and siting criteria employed for all equipment, and the quality assurance program to be followed as required by Final Approval MBR-95-COM-009.
	30) The Permittee shall, in accordance with 310 CMR 7.19(13)(d)9., submit compliance records within ten (10) days of written request by MassDEP or EPA.
	31) The Permittee shall, in accordance with 310 CMR 7.13(1) and 7.13(2), if determined by MassDEP that stack testing is necessary to ascertain compliance with MassDEP's regulations or design approval provisos shall cause such stack testing to be summarized and submitted to MassDEP as prescribed in the agreed upon test protocol.
	32) The Permittee shall submit Emissions Compliance Testing (Stack Testing) reports in accordance with 310 CMR 7.19(13)(c).
	33) The Permittee shall submit Annual Compliance report to MassDEP and EPA by January 30th of each year and as required by General Condition 10 of this Permit.
	34) All required reports must be certified by a responsible official as provided in 310 CMR 7.00: Appendix C(10)(h).
	35) In accordance with 310 CMR 7.00: Appendix C(10)(c), the Permittee shall report a summary of all monitoring data and related supporting information to MassDEP at least every six months (January 30 and July 30 of each calendar year).
	36) The Permittee shall promptly report to MassDEP all instances of deviations from Permit requirements which are not otherwise reported to MassDEP by telephone or fax, within three days of discovery of such deviation, as provided in 310 CMR 7.00: Appendix C(10)(f). (See General Condition 25).
	37) In accordance with 310 CMR 7.71(5), the Permittee shall electronically submit and certify by April 15th of each year a greenhouse gas emissions report to MassDEP (State only requirement)
	37) If the Facility is subject to 40 CFR Part 68, due to the presence of a regulated substance above a threshold quantity in a process, the Permittee must submit a Risk Management Plan no later than the date the regulated substance is first present above a threshold quantity.
	38) In accordance with Approval No. NE-14-013, the Permittee shall submit a semi-annual report to MassDEP by July 30 and January 30 of each year to demonstrate the Facility's compliance status regarding the Facility-Wide emission limits (TPY) specified in Table 3. Reports shall include actual emissions for the previous 12 months. (The MassDEP approved format can be downloaded at http://www.mass.gov/eea/agencies/massdep/air/approvals/limited-emissions-record-keeping-and-reporting.html#WorkbookforReportingOn-SiteRecordKeeping in Microsoft Excel format.)

Table 6	
EU	**Reporting Requirements**
Facility-wide	39) The Permittee shall submit to MassDEP all information required by this Operating Permit over the signature of a "Responsible Official" as defined in 310 CMR 7.00 and shall include the Certification statement as provided in 310 CMR 7.01(2)(c).
	40) In accordance with Approval No. NE-14-013, all notifications and reporting to MassDEP shall be made to the attention of: Department of Environmental Protection/Bureau of Air and Waste 205B Lowell Street Wilmington, Massachusetts 01887 Attn: Permit Chief Phone: (978) 694-3200 Fax: (978) 694-3499 E-Mail: nero.air@massmail.state.ma.us
	41) The Permittee shall report annually to MassDEP, in accordance with 310 7.12, all information as required by the Source Registration/Emission Statement Form. The Permittee shall note therein any minor changes such as under 310 CMR 7.02(2)(e), 7.03 and 7.26, which did not require Plan Approval.

Table 6 Key
EU = Emission Unit
PM = Total Particulate Matter, $PM_{2.5}$ = Particulate Matter less than or equal to 2.5 microns
CO = Carbon Monoxide, CO_2 = Carbon Dioxide, NH_3 = Ammonia, H_2SO_4 = Sulfuric Acid, NO_x Nitrogen Oxide, SO_2 = Sulfur Dioxide
TPY = tons per consecutive 12-month rolling period, ULSD = Ultra low sulfur diesel fuel oil, CFR = Code of Federal Regulations
CMR = Commonwealth of Massachusetts Regulations, HHV = higher heating value, mmBtu/hr = million British Thermal Units per hour,
scf = standard cubic feet, gal = gallons, CEMS = continuous emissions monitoring system, COMS = continuous opacity monitoring system,
QA/QC = quality assurance/quality control, ALE_{NOx} = allowable facility-wide daily NOx emissions

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	**Reason**
310 CMR 7.16	Reduction of Single Occupant Commuter Vehicle Use: Number of Employees is below the threshold level.
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 7.32	Massachusetts Clean Air Interstate Rule applies to 1) electrical generators with a nameplate rating of greater than 25 Megawatts (MW) producing electricity for sale. CTG-1 and CTG-2 are rated less than 25 MW and 2) fossil fuel-powered boiler having a maximum design heat input of 250 MMBtu/hr or more. PSG-1, PSG-2, and PSG-3 are rated less than 250 MMBtu/hr.
310 CMR 7.70	Massachusetts CO_2 Budget Program applies to electricity generator with a nameplate capacity equal to or greater than 25 MW.

5. SPECIAL TERMS AND CONDITIONS

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

Table 8	
EU	**Special Terms and Conditions**
Facility-wide	1) That should any nuisance condition(s) be generated by the operation of this Facility, then appropriate steps will immediately be taken by the Permittee to abate said nuisance condition(s) (State Only 310 CMR 7.01(1)).
DEG-1 DEG-2 DEG-3 DEG-4 DEG-5 DEG-6 Zurn-1 Zurn-2	2) The Zurn afterburners (Zurn-1 and Zurn-2) equipped with Coen Duct Burners shall be operated at all times downstream from the diesels as necessary to combust unburned combustible particulates and other combustible gaseous pollutants emitted in each diesel exhaust stream by thermal afterburning in the direct flame afterburner. Each afterburner shall be operated in accordance with the most recent standard operating procedures demonstrated during compliance testing to achieve satisfactory destruction of combustible diesel emissions. Each Zurn afterburner, when fired on gas, may operate with the exhaust input of 2 to 5 diesels and a total electric output load of 6.8 to 27.2 megawatts (MW) as referenced in Final Approval MBR-95-COM-009 and EPA's Approval of Operating Limitations for 40 CFR 63 Subpart ZZZZ dated June 3, 2015. Each Zurn afterburner, when fired on ULSD, may operate with the exhaust of 4 diesels and a total electric output load of 24.4 to 27.2 MW as referenced in EPA's Approval of Operating Limitations for 40 CFR 63 Subpart ZZZZ dated June 3, 2015.
Facility-wide	3) The products of combustion from the total facility, except for EDG-1, EDG-2 and FP-1 shall be emitted through a reinforced concrete double flue stack, the top of which is 315 feet above ground level. Each flue has an effective diameter of 9.75 feet, as referenced in Approval NE-14-013.
	4) In accordance with Approval No. NE-14-013, the Facility shall be operated in accordance with the following documents submitted by the Permittee: a. An additional section to the plant's Administration Manual entitled "Compliance with Environmental Regulations, Rules and Penalties," which identifies specific plant personnel responsible in the decision making process during emergency situations, and requires immediate notification of MassDEP "in the event any action is taken which threatens non-compliance with environmental regulations ..." b. An emergency Operating Procedure entitled "Emergency Electrical Load Shedding", which outlines steps to be followed in the event of a loss of generation and/or Eversource's supply lines capacity that threatens the integrity of the plant distribution system.
	5) As per 310 CMR 7.00: Appendix B(4)(f), MassDEP has determined that the Permittee's multi-emission unit NOx emission averaging "bubble" involving ten emission units located at the 474 Brookline Avenue, Boston, MA facility continues to be in effect under Approval MBR-95-COM-009 along with the addition of the combustion turbines, CTG-1 through CTG-3 and HRSG-100 through HRSG-300.

Table 8	
EU	**Special Terms and Conditions**
Facility Wide	6) ALE_{NOx} = A + B + C + D, where A is the allowable NOx emitted from the six Mirrlees engines (DEG-1,2,3,4,5,6); B is the allowable NOx emitted from the three PSG boilers (PSG-1, PSG-2 and 3); C is the allowable NOx emitted from the two Zurn afterburners (Zurn-1,2); and D is the allowable NOx emitted from three Combustion Turbines and associated Duct Burners (CTG-1-3 and HRSG-100-300). A, B, C, and D are given in units of pounds of NOx per day. The allowable daily NOx emitted in pounds, A, for the six Mirrlees engines (DEGs 1-6) is calculated as follows: $A = \Sigma_{i=1}^{6} A_i$, where A_i is the allowable NOx emitted from each individual engine. The allowable NOx emitted from Engine "i" is calculated by using the formula given below: $A_i = E_{oi} / ç (F_i) \times 26{,}593 \times m_i(H_2)$, where i = Engine 1,2,3,4,5, or 6 E_{oi} is the engine's electric energy output in kilowatts. ç is the electric generator's efficiency. F_i is fuel energy input in Btu per hour. H_2 is the heat content of No. 2 fuel oil combusted in million Btu per gallon (0.14 million Btu per gal). m_i is the total number of gallons of No. 2 fuel oil combusted in Engine i per day, where a day is defined as a 24 hour period from 12:00 midnight to 12:00 midnight of the following day. The allowable daily NOx emitted in pounds, B, for the Victory Boiler (PSG-1) and two Riley boilers(PSG-2 and 3) is calculated as follows: $B = 0.18 \times [\mathbf{o}(H_g)] + 0.20 \times [\mathbf{p}(H_2)] + 0.011 \times [\mathbf{o'}(H_g)] + 0.09 \times [\mathbf{p'}(H_2)]$ H_g is the heat content of natural gas combusted in million Btu per cubic feet (0.00103 million Btu per cubic foot). H_2 is the heat content of No. 2 fuel oil combusted in million Btu per gallon. **o** is the total cubic feet of natural gas combusted in the two Riley boilers per day. **p** is the total number of gallons of No. 2 fuel oil combusted in the two Riley boilers per day. **o'** is the total cubic feet of natural gas combusted in the Victory boiler per day. **p'** is the total number of gallons of No. 2 fuel combusted in the Victory boiler per day. The 0.18 constant is the NOx emission limitation for gas-firing of the PSG-2 and -3 boilers given in pounds per million Btu input, while the 0.20 constant is for oil-firing. The 0.011 constant is the NOx emission limitation for gas-firing of the PSG-1 boiler given in pounds per million Btu input, while the 0.09 constant is for oil-firing.

Table 8	
EU	**Special Terms and Conditions**
Facility-wide	The allowable daily NOx emitted in pounds, C, for the two Zurn afterburners (Zurn-1 and Zurn-2) is calculated as follows: $C = 0.3 \times ([q(H_g)] + [r(H_2)]$ H_g is the heat content of natural gas combusted in million Btu per cubic feet. H_2 is the heat content of No. 2 fuel oil combusted in million Btu per gallon. q is the total cubic feet of natural gas combusted in the two Zurn afterburners per day. r is the total number of gallons of No. 2 fuel oil combusted in the two Zurn afterburners per day. The allowable daily NOx emitted in pounds, D, for the combustion turbines (CTG-1-3) and associated Heat Recovery Steam Generators (HRSG-100-300) is calculated as follows: $D = \Sigma_{i=1}^{3} D_i$, where D_i is the allowable NOx emitted from each individual combustion turbine/duct burner unit. The allowable NOx emitted from each unit "**i**" is calculated by using the formula given below: $D_i = (CTNO_Xi_{gas} + CTNO_Xi_{oil})$ $CTNO_Xi_{gas} = (2 \times 8710 \times 1.194E\text{-}07 \times 20.9/(20.9\text{-}15) \times [1.03 \times (CT_{igas} + HRSG_{gas}CT_{gas})])$ $F_{ave}i = 8710 \times (1.03 \times HRSG_{gas}CT_{oil})/[(0.14 \times CTi_{oil}) + (1.03 \times HRSG_{gas}CT_{oil})] + 9190 \times (0.14 \times CTi_{oil})/[(0.14 \times CTi_{oil}) + (1.03 \times HRSG_{gas}CT_{oil})]$ $CTNO_Xi_{oil} = 6 \times F_{ave}i \times 1.194E\text{-}07 \times 20.9/(20.9\text{-}15) \times [(1.03 \times HRSG_{gas}CT_{oil}) + (0.14 \times CTi_{oil})]$ $CTNO_Xi_{gas}$ is the amount of NOx emitted from unit *i* during combustion turbine natural gas firing. $CTNO_Xi_{oil}$ is the amount of NOx emitted from unit i during combustion turbine ULSD firing. 1.03 is the heat content of natural gas combusted in million Btu per thousand cubic feet. 0.14 is the heat content of ULSD combusted in million Btu per gallon. CTi_{gas} is the amount of natural gas burned in CT *i*, in thousand cubic feet per day. CTi_{oil} is the amount of oil burned in CT *i*, in gallons per day. $HRSG_{gas}CT_{gas}$ is the amount of natural gas burned in HRSG i while CT i is combusting natural gas, in thousand cubic feet per day. $HRSG_{gas}CT_{oil}$ is the amount of natural gas burned in HRSG i while CT i is combusting ULSD, in thousand cubic feet per day.
	7) The Permittee has requested intra-facility emissions trading as provided for in Approval MBR-95-COM-009 and Section 4 and 5 of this Operating Permit. In accordance with 310 CMR 7.00: Appendix B(4)(f), MassDEP is renewing Approval MBR -95-COM-009 herein.
	8) The Permittee is subject to, and has stated in their Operating Permit application, TR# X224180, that the Permittee 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.
PSG-1 PSG-2 PSG-3 Zurn-1 Zurn-2	9) Boilers emission units PSG-1, PSG-2, PSG-3, Zurn-1 and Zurn-2 are subject to the area source boiler MACT regulations under 40 CFR Part 63 Subpart JJJJJJ. The Permittee is required to comply with the requirements of 40 CFR Part 63, Subpart JJJJJJ by the compliance dates.

Table 8	
EU	**Special Terms and Conditions**
CTG-3/HRSG-300	10) The Permittee shall not combust ULSD fuel in CTG-3/HRSG-300 unless: a) natural gas is curtailed by the natural gas supplier or distributor; b) instructed/mandated by the system operator; c) ISO New England is conducting emissions testing; or d) conducting required equipment maintenance and testing. This condition is required by Plan Approval No. NE-14-013.
	11) The Permittee is restricted to a maximum annual fuel usage for ULSD of 878,400 gallons per 12-month rolling period for CTG-3 as required by Plan Approval No. NE-14-013.
	12) The Permittee shall not allow CTG-3 to operate below the MECL, except for start-ups and shutdowns. Emissions during all operating conditions, including start-ups and shutdowns shall be included in the 12 month rolling total limits (TPY) specified in Table 3 as required by Plan Approval No. NE-14-013.
	13) The Permittee shall ensure that the SCR control equipment serving CTG-3/HRSG-300 is operational whenever the turbine exhaust temperature at the SCR unit attains the minimum exhaust temperature specified by the SCR vendor and other system parameters are satisfied for SCR operation. The specific time period required to achieve this exhaust temperature and other system parameters will vary based on ambient conditions and whether the start-up is cold, warm, or hot as required by Plan Approval No. NE-14-013.
	14) The Permittee shall develop as part of the Standard Operating Procedures for CTG-3/HRSG-300, an MECL optimization protocol to establish minimum operating load(s) that maintain compliance with all emission limitations as required by Plan Approval No. NE-14-013.
	15) The Permittee shall maintain an adequate supply of spare parts on-site to maintain the on-line availability and data capture requirements for the CEMS equipment serving the CTG-3/HRSG-300 as required by Plan Approval No. NE-14-013.
	16) The Permittee shall properly train all personnel to operate CTG-3/HRSG-300 and the control and monitoring equipment serving the Unit in accordance with vendor specifications. All persons responsible for the operation of the Facility shall sign a statement affirming that they have read and understand the approved SOMP. Refresher training shall be given by the Permittee to Facility personnel at least once annually as required by Plan Approval No. NE-14-013.
Facility-wide	17) The Permittee shall comply with all provisions of 40 CFR Part 60, 40 CFR Part 63, 40 CFR Part 64, 40 CFR Part 68, 40 CFR Part 98, and 310 CMR 6.00 through 8.00 that are applicable to this Facility as required by Plan Approval No. NE-14-013.
	18) All requirements of Approval NE-14-013 which apply to the Permittee shall apply to all subsequent owners and/or operators of the Facility.

Table 8 Key
EU = Emission Unit
PM = Total Particulate Matter, $PM_{2.5}$ = Particulate Matter less than or equal to 2.5 microns
CO = Carbon Monoxide, CO_2 = Carbon Dioxide, NH_3 = Ammonia, H_2SO_4 = Sulfuric Acid, NO_x Nitrogen Oxide, SO_2 = Sulfur Dioxide
TPY = tons per consecutive 12-month rolling period, ULSD = Ultra low sulfur diesel fuel oil, CFR = Code of Federal Regulations
CMR = Commonwealth of Massachusetts Regulations, HHV = higher heating value, mmBtu/hr = million British Thermal Units per hour,
scf = standard cubic feet, gal = gallons, CEMS = continuous emissions monitoring system, COMS = continuous opacity monitoring system

6. ALTERNATIVE OPERATING SCENARIOS

Table 9
Alternative Operating Scenarios
The Permittee did not request alternative operating scenarios in its Operating Permit application.

7. EMISSIONS TRADING

Table 10
Emissions Trading
A. INTRA-FACILITY EMISSION TRADING The Permittee did request intra-facility emissions trading in its Operating Permit application. B. INTER-FACILITY EMISSION TRADING The Permittee did not request inter-facility emissions trading in its Operating Permit application.

8. COMPLIANCE SCHEDULE

The Permittee has indicated that the facility is in compliance and shall remain in compliance with the applicable requirements contained in Sections 4 and 5. The Permittee shall comply with any applicable requirements that become effective during the permit term.

GENERAL CONDITIONS FOR OPERATING PERMIT

9. FEES

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

10. COMPLIANCE CERTIFICATION

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

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

The "Operating Permit Reporting Kit" contains instructions and the Annual Compliance Report and Certification and the Semi-Annual Monitoring Summary Report and Certification. The "Operating Permit Reporting Kit" is available to the Permittee via the MassDEP's web site, http://www.mass.gov/dep/air/approvals/aqforms.htm#op.

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 Operating Permit. The report shall be postmarked or delivered by January 30 to the MassDEP and to the Regional Administrator, U.S. Environmental Protection Agency - New England Region. The report shall be submitted in compliance with the submission requirements below.

The compliance certification and report shall describe:

1) the terms and conditions of the Permit that are the basis of the certification;
2) the current compliance status and whether compliance was continuous or intermittent during the reporting period;
3) the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods; and
4) any additional information required by the MassDEP to determine the compliance status of the source.

Semi-Annual Monitoring Summary Report and Certification

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

The compliance certification and report shall describe:

1) the terms and conditions of the Permit that are the basis of the certification;
2) the current compliance status during the reporting period;
3) the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods;
4) whether there were any deviations during the reporting period;
5) if there are any outstanding deviations at the time of reporting, and the Corrective Action Plan to remedy said deviation;
6) whether deviations in the reporting period were previously reported;
7) if there are any outstanding deviations at the time of reporting, the proposed date of return to compliance;
8) if the deviations in the reporting period have returned to compliance and date of such return to compliance; and
9) any additional information required by the MassDEP to determine the compliance status of the source.

11. NONCOMPLIANCE

Any noncompliance with a permit condition constitutes a violation of 310 CMR 7.00: Appendix C and the Clean Air Act, and is grounds for enforcement action, for Permit termination or revocation, or for denial of

an Operating Permit renewal application by the MassDEP and/or EPA. Noncompliance may also be grounds for assessment of administrative or civil penalties under M.G.L. c.21A, §16 and 310 CMR 5.00; and civil penalties under M.G.L. c.111, §142A and 142B. This Permit does not relieve the Permittee from the obligation to comply with any other provisions of 310 CMR 7.00 or the Act, or to obtain any other necessary authorizations from other governmental agencies, or to comply with all other applicable Federal, State, or Local rules and regulations, not addressed in this Permit.

12. PERMIT SHIELD

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

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

B. The MassDEP has determined that the Permittee is not currently subject to the requirements listed in Section 4, Table 7.

C. Nothing in this Permit shall alter or affect the following:

1) the liability of the source for any violation of applicable requirements prior to or at the time of Permit issuance.

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

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

13. ENFORCEMENT

The following regulations found at 310 CMR 7.02(8)(h) Table 6 for wood fuel, 7.04(9), 7.05(8), 7.09 (odor), 7.10 (noise), 7.18(1)(b), 7.21, 7.22, 7.70 and any condition(s) designated as "state only" are not federally enforceable because they are not required under the Act or under any of its applicable requirements. These regulations and conditions are not enforceable by the EPA. Citizens may seek equitable or declaratory relief to enforce these regulations and conditions pursuant to Massachusetts General Law Chapter 214, Section 7A

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

A Permittee shall not claim as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit.

14. PERMIT TERM

This Permit shall expire on the date specified on the cover page of this Permit, which shall not be later than the date 5 years after issuance of this Permit.

Permit expiration terminates the Permittee's right to operate the facility's emission units, control equipment or associated equipment covered by this Permit, unless a timely and complete renewal application is submitted at least 6 months before the expiration date.

15. PERMIT RENEWAL

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

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

16. REOPENING FOR CAUSE

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

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

17. DUTY TO PROVIDE INFORMATION

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

18. DUTY TO SUPPLEMENT

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information. The Permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after the date a complete renewal application was submitted but prior to release of a draft permit.

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

19. TRANSFER OF OWNERSHIP OR OPERATION

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

20. PROPERTY RIGHTS

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

21. INSPECTION AND ENTRY

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

A. enter upon the Permittee's premises where an operating permit source activity is located or emissions-related activity is conducted, or where records must be kept under the conditions of this Permit;

B. have access to and copy, at reasonable times, any records that must be kept under the conditions of this Permit;

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

D. Sample or monitor at reasonable times any substances or parameters for the purpose of assuring compliance with the Operating Permit or applicable requirements as per 310 CMR 7.00 Appendix C(3)(g)(12).

22. PERMIT AVAILABILITY

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

23. SEVERABILITY CLAUSE

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

24. EMERGENCY CONDITIONS

The Permittee shall be shielded from enforcement action brought for noncompliance with technology based[2] emission limitations specified in this Permit as a result of an emergency[3]. In order to use emergency as an affirmative defense to an action brought for noncompliance, the Permittee shall demonstrate the affirmative defense through properly signed, contemporaneous operating logs, or other relevant evidence that:

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

B. the permitted facility was at the time being properly operated;

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

D. the Permittee submitted notice of the emergency to the 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 the MassDEP's Regional Bureau of Air and Waste the following deviations from permit requirements, by telephone, fax or electronic mail (e-mail) , within three (3) days of discovery of such deviation:

A. 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.

B. 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.

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

[3]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.

C. Exceedances of Permit operational limitations directly correlated to excess emissions.

D. 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.

E. 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 Air and Waste Air Operating Permit Reporting Kit, which is available to the Permittee via the MassDEP's web site, http://www.mass.gov/dep/air/approvals/aqforms.htm#op .
This report shall include the deviation, including those attributable to upset conditions as defined in the Permit, the probable cause of such deviations, and the corrective actions or preventative measures taken.

Deviations that were reported by telephone, 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 Air and Waste within ten (10) days of discovery. For deviations, which do not require 3-day verbal notification, follow-up reporting requirements are satisfied by the documentation required in the aforementioned Semi-Annual Monitoring Summary and Certification.

26. OPERATIONAL FLEXIBILITY

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

27. MODIFICATIONS

A. Administrative Amendments - The Permittee may make changes at the facility which are considered administrative amendments pursuant to 310 CMR 7.00: Appendix C(8)(a)1., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(b).

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

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

D. No permit revision shall be required, under any approved economic incentives program, marketable permits program, emission trading program and other similar programs or processes, for changes

that are provided in this Operating Permit. A revision to the Permit is not required for increases in emissions that are authorized by allowances acquired pursuant to the Acid Rain Program under Title IV of the Act, provided that such increases do not require an Operating Permit revision under any other applicable requirement.

28. 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 Part 82, Subpart F, except 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 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 Part82, 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 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 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.