Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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FINAL AIR QUALITY OPERATING PERMIT

Issued by the Massachusetts Department of Environmental Protection ("Department" or "MassDEP") pursuant to its authority under M.G.L. c. 111, §142B and §142D, 310 CMR 7.00 et seq., and in accordance with the provisions of 310 CMR 7.00: Appendix C.

ISSUED TO ["the Permittee"]:
Millennium Power Company, LLC
10 Sherwood Lane
Charlton, MA 01507

INFORMATION RELIED UPON:
Application No. X229140
Transmittal No. W019914
Transmittal No. X274532
Transmittal No. X281381
Transmittal No. 21-AQ11-0003-AMD
Transmittal No. 21-AQ11-0006-AMD

FACILITY LOCATION:
Millennium Power Company, LLC
10 Sherwood Lane
Charlton, MA 01507-0588

FACILITY IDENTIFYING NUMBERS:
AQ ID: AQCR 118 PLANT ID 281
FMF FAC NO.: 342837
FMF RO NO.: 287921

NATURE OF BUSINESS:
Fossil Fuel Electrical Power Generation

STANDARD INDUSTRIAL CLASSIFICATION (SIC): 4911
NORTH AMERICAN INDUSTRIAL CLASSIFICATION (NAICS): 221112

RESPONSIBLE OFFICIAL:
Name: Frank Schneider
Title: Vice President, Compliance

FACILITY CONTACT PERSON:
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This Operating Permit shall expire on March 26, 2024.

For the Department of Environmental Protection

John C. Barlow, Bureau of Air and Waste

6/11/2021
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.

A. DESCRIPTION OF FACILITY AND OPERATIONS

The Millennium Power Partners, LP (the Permittee) site is located adjacent to Route 169 in Charlton, Massachusetts. Charlton is located in Worcester County in south central Massachusetts. It lies approximately six miles north of the Connecticut border and approximately two miles southeast of the intersection of Interstate 90 (the Massachusetts Turnpike) and Interstate 84. The neighboring community is a mix of open space, industrial, commercial, and residential land uses.

The Permittee designed, constructed and operates a combined cycle electrical power generation facility of approximately 360-megawatt ("MW") nominal output in Charlton, Massachusetts. The Facility consists of a combustion turbine generator ("CTG") of approximately 230 MW output capacity, an un-fired exhaust heat recovery steam generator ("HRSG"), a nominal 130 MW steam turbine generator, a wet mechanical draft cooling tower, a water treatment system and auxiliary equipment.

Major auxiliary equipment associated with the Facility includes a control room, an oxidation catalyst for carbon monoxide ("CO") control, a selective catalytic reduction ("SCR") system for nitrogen oxides ("NOx") control, feed water and cooling water pumps, fuel oil and ammonia storage tanks, a continuous emission monitoring system and an emergency diesel fire pump engine.

The diesel engine for the fire pump is a John Deere Model JDFP-06WA, oil fired compression ignition stationary internal combustion engine rated at 1.85 million British thermal units per hour ("MMBtu/hr"). Because the engine was installed after June 1, 1990 but before March 23, 2006 and its energy input capacity is less than 3 MMBtu/hr, the engine is not subject to MassDEP regulations for emergency engines.[1] The engine is subject to federal regulations at 40 CFR 63 Subpart ZZZZ.

[1] See 310 CMR 7.02(2)(b)(8), 7.02(8)(i), 7.03(10) and 7.26(42)

The Facility operates a Siemens Model 501G combustion turbine with a nominal capacity of 230 MW and a heat input of approximately 2,534 MMBtu/hr at an average ambient temperature of 60 degrees Fahrenheit ("°F") (original design).

The CTG utilizes natural gas as the primary fuel. The natural gas is fired at a rate of approximately 2,534,000 cubic feet per hour while operating at 100% rated capacity at 60°F. The backup fuel is distillate fuel oil with a sulfur content not to exceed 0.0015 percent by weight. The fuel oil is fired at a rate of approximately 20,300 gallons per hour (2,842 MMBtu/hr input) at 100% rated capacity at 0°F. The fuel oil is stored in a 1.2 million gallon above ground storage tank, which is physically limited to 950,000-gallons capacity.

The hot exhaust gases exiting the CTG pass through an unfired HRSG, which uses the heat from these gases to produce steam. The HRSG houses a CO catalyst followed by an ammonia injection grid and the selective catalytic reduction catalyst for control of NOx emissions.

The steam produced in the HRSG feeds into a condensing steam turbine ("ST") to generate a nominal output of 130 MW of electric power. The Facility is designed to operate continuously except for equipment downtime to allow for servicing, maintenance, and repair activities. Operations also include evaporative cooling of the intake air for additional combustion turbine efficiency and capacity when ambient temperatures exceed 50°F and heating of inlet air used during colder ambient temperatures to prevent icing in the combustion turbine.

The emissions from the Facility are emitted to the ambient air through a stack, the top of which is 225 feet above ground level with an inside exit diameter of 19 feet, which provides for a design maximum exit velocity of 89 feet per second at a temperature of 242°F.

The Facility has had several permit modifications and updates since the original permitted approval. A summary of these permits, modifications and changes is presented in the following Table A.

TABLE A - Permit Modifications and Updates

Transmittal Number	Issue Date	Summary of Changes Approved	Comments
X139021	1/29/1998	• Conditional Plan Approval and PSD Permit to construct • Allowed construction to begin • Contained project description, emission control systems identification and facility emission and operating limits	Superseded by Tr 130921 Final 7.02 Air Quality Plan Approval
X139021	03/03/2000	• Final 7.02 Air Quality Plan Approval • Established emission test requirements, CEM requirements, optimization testing procedures, record keeping and reporting requirements	Superseded by Tr 130921(A)

TABLE A - Permit Modifications and Updates			
Transmittal Number	**Issue Date**	**Summary of Changes Approved**	**Comments**
		and special conditions as deemed necessary	
X139021(A)	03/16/2005	• Startup / shutdown emission limits established • Simplified the emission limit table by using only the maximum emission rates that would be allowed under various gas turbine load rates regardless of ambient temperature	Superseded by Tr 265042
X265042	10/26/2016	• Approval of Low Load Turn Down ("LLTD") and Steam for Power Augmentation ("SPAG") • Accommodate protective load shedding • Updated emission limits for PM/PM10/PM2.5 and sulfuric acid • Listed cooling tower	Superseded by Tr 272799
X272799	11/29/2016	• Admin Amendment to clarify note on emission table related to VOC	Superseded by Tr. X274532
X274532	10/19/2017	• Addition of Startup Limits for extended startups	Currently Effective

The Facility is considered to be a major source in Massachusetts for Title V Permitting purposes since it has the potential to emit greater than or equal to 50 tons per year ("TPY") of NOx, 100 tons per year of CO, and 100 tons per year of particulate matter less than 10 microns ("PM_{10}"). Therefore, the Facility is subject to the Operating Permit and Compliance Program pursuant to 310 CMR 7.00: Appendix C(2).

The Facility is a "major stationary source" pursuant to the Emissions Offsets and Nonattainment Review regulations of 310 CMR 7.00: Appendix A because the Facility has the potential to emit more than 50 tons per year of NOx.

The Facility is a "major stationary source" pursuant to the Prevention of Significant Deterioration ("PSD") regulations of 40 CFR 52.21 since it has the potential to emit more than 100 tons per year of a new source review regulated pollutant.

The Facility is a natural area source of hazardous air pollutants ("HAPs") because the Facility's potential to emit HAPs is much less than the major source thresholds of 10 tpy for a single HAP and 25 tpy for all HAPs.

As part of this operating permit renewal application review, a compliance assurance monitoring ("CAM") applicability determination was conducted. The determination concluded that the combustion turbine is exempt from complying with the CAM requirements of 40 CFR Part 64 since the emission limitations for which there are control devices (specifically, CO and NOx) are

required to have a continuous compliance determination method (i.e. continuous emissions monitoring system or "CEMS"), as defined in 40 CFR 64.1. This exemption is specified in 40 CFR 64.2 (b)(1)(vi).

Applicable Regulatory Requirements

New Source Performance Standards

The Permittee shall comply with Federal New Source Performance Standards ("NSPS") for stationary gas turbines at 40 CFR 60 Subparts A – General Provisions and GG - Standards of Performance for Stationary Gas Turbines for Emission Unit ("EU") 1.

Federal Acid Rain Program

The Permittee is subject to the requirements of Phase II of the Federal Acid Rain Program for EU1 as defined by EPA in 40 CFR Part 72 and 40 CFR Part 75.

Pursuant to 40 CFR Part 72.71, 40 CFR Part 72.73, and 310 CMR 7.00: Appendix C(3)(n), MassDEP is the permitting authority for Phase II Acid Rain Permits. The Permittee was issued the initial Phase II Acid Rain Permit on October 25, 2000 and renewed said permit on June 14, 2005.

In accordance with 40 CFR 72.9, the owner or operator of an acid rain unit shall install, maintain, and operate an EPA approved monitoring system for monitoring SO_2 and NOx emissions in accordance with 40 CFR 75.

The Department is incorporating the requirements of the renewal Phase II Acid Rain Permit into this Operating Permit. The Phase II Acid Rain requirements will renew in the Operating Permit.

40 CFR 63 Subpart ZZZZ

The Permittee shall comply with the Federal National Emission Standards for Hazardous Air Pollutants for reciprocating internal combustion engines at 40 CFR 63 Subparts A and ZZZZ - National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines for the emergency diesel fire pump engine (EU3).

Massachusetts CO2 Budget Trading Program

The Permittee is subject to the requirements of the Massachusetts CO_2 Budget Trading Program for EU1 as defined by MassDEP in 310 CMR 7.70(1)(d).

Pursuant to 310 CMR 7.70(3), the Permittee was issued a CO_2 Budget Program Emissions Control Plan ("ECP") on December 9, 2008, Tr # X006500. In accordance with 310 CMR 7.70(8)(a), the owner or operator shall install, maintain, operate, and report emissions data from a CO_2 emissions monitoring system. (State Only Requirement).

Gas Insulated Switchgear

The Permittee is subject to the requirements of Reducing Sulfur Hexafluoride ("SF6") emissions from Gas Insulated Switchgear ("GIS") as defined by MassDEP in 310 CMR 7.72(3) for non-

federal, state-only GIS owners for each piece of active GIS equipment that was placed under the Permittee's ownership, lease, operation, or control on or after January 1, 2015 (State Only Requirement). The Facility has not newly placed under its ownership, lease, operation, or control any GIS equipment since January 1, 2015. Therefore, there is no applicable GIS emission unit.

Pursuant to 310 CMR 7.72(2), *Definitions:* Gas-Insulated Switchgear or "GIS" means as all electrical power system equipment insulated with SF_6 gas. Gas-insulated switchgear or GIS includes switches, stand-alone gas-insulated equipment, and any combination of electrical disconnects, fuses, electrical transmission lines, transformers and/or circuit breakers used to isolate gas-insulated electrical power system equipment.

Massachusetts Greenhouse Gas Reporting Program
The Permittee is subject to the requirements of Greenhouse Gas Emissions Reporting as defined by MassDEP in 310 CMR 7.71(3)(a).

Pursuant to 310 CMR 7.71(2), *Definitions*: Greenhouse Gas means any chemical or physical substance that is emitted into the air and that MassDEP 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).

Reducing GHG Emissions from Electricity Generating Facilities
The Permittee is subject to the requirements of the Reducing CO2 Emissions from Electricity Generating Facilities regulation for Emission Unit 1 as defined by MassDEP in 310 CMR 7.74(3).

The Permittee shall comply with the CO2 emissions limits contained in 310 CMR 7.74(5) for calendar year 2018 and each year thereafter. The Permittee may offset all CO2 emissions using allowances in the facility allowance registry account in accordance with 310 CMR 7.74(6)(b) or request deferred compliance due to an emergency in accordance with 310 CMR 7.74(6)(d). (State Only Requirement).

2. EMISSION UNIT IDENTIFICATION

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

Table 1

EU	Description of EU	EU Design Capacity	Pollution Control Device
1	Siemens Model 501G combustion turbine	2,534 MMBtu/hr @ 60ºF 230 MW	• Oxidation catalyst for CO Control • Selective catalytic reduction for NOx Control
2	Cooling tower	97,620 gallons per minute recirculation rate	Drift eliminators
3	John Deere Model JDFP-06WA diesel fire pump	265 HP 1.85 MMBtu/hr	None

Table 1 Key

CO = Carbon monoxide
EU = Emission Unit
HP = Horsepower
@ 60 ºF = at 60 degrees Fahrenheit
MW = Megawatts
MMBtu/hr = Million British thermal units per hour
NOx = Nitrogen oxides

3. IDENTIFICATION OF EXEMPT ACTIVITIES

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

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 the MassDEP's Regional Office. Emissions from these activities shall be reported on the annual emissions statement pursuant to 310 CMR 7.12.	310 CMR 7.00: Appendix C(5)(h)

4. APPLICABLE REQUIREMENTS

A. OPERATIONAL AND/OR PRODUCTION EMISSION LIMITS AND RESTRICTIONS

The Permittee is subject to the limits/restrictions as contained in Tables 3A and 3B below:

Table 3A

EU	Fuel/Raw Material	Pollutant	Operational / Production Limit	Emission Limits/Standards [1, 2, 3, 4,]			Applicable Regulation and/or Approval Number
				100% [5] load	75% load	50% load or less	
1	Natural Gas	NOx	NA	37.0 lb/hr 0.013 lb/MMBtu 3.5 ppmvd at 15% O_2	29.8 lb/hr 0.013 lb/MMBtu 3.5 ppmvd at 15% O2	22.0 lb/hr 0.013 lb/MMBtu 3.5 ppmvd at 15% O2	Tr. X274532
				75 ppm @ 15% O_2, 4-hour rolling average [6]			40 CFR Part 60, Subpart GG, §60.332(a)(1)
		CO	NA	28.7 lb/hr 0.01 lb/MMBtu 4.0 ppmvd at 15% O2	23.2 lb/hr 0.01 lb/MMBtu 4.0 ppmvd at 15% O_2	119.7 lb/hr 0.07 lb/MMBtu 30.0 ppmvd at 15% O_2	Tr. X274532
		VOC	NA	3.7 lb/hr 0.001 lb/MMBtu 3.0 ppmvd at 15% O2	3.0 lb/hr 0.001 lb/MMBtu 3.0 ppmvd at 15% O_2	13.2 lb/hr 0.01 lb/MMBtu 8.1 ppmvd at 15% O_2	Tr. X274532
		$PM/PM_{10}/PM_{2.5}$	NA	20.2 lb/hr 0.007 lb/MMBtu	16.2 lb/hr 0.007 lb/MMBtu	12.0 lb/hr 0.007 lb/MMBtu	Tr. X274532
		SO_2	NA	6.6 lb/hr 0.002 lb/MMBtu	5.3 lb/hr 0.002 lb/MMBtu	3.9 lb/hr 0.002 lb/MMBtu	Tr. X274532
		NH_3	NA	39.1 lb/hr 0.014 lb/MMBtu 10.0 ppmvd at 15% O_2	31.5 lb/hr 0.014 lb/MMBtu 10.0 ppmvd at 15% O_2	23.3 lb/hr 0.014 lb/MMBtu 10.0 ppmvd at 15% O_2	Tr. X274532

Table 3A					
EU	**Fuel/Raw Material**	**Pollutant**	**Operational / Production Limit**	**Emission Limits/Standards [1, 2, 3, 4,]**	**Applicable Regulation and/or Approval Number**
1	Natural Gas			**All loads**	
		Sulfuric Acid Mist	NA	2.81 lb/hr 0.001 lb/MMBtu	Tr. X274532
		Sulfur Content	NA	0.8 grains per 100 cubic feet sulfur content in natural gas	Tr. X274532
	Fuel Oil			**All loads between 100% and 75% load**	
		NOx	720 hours fuel oil firing per 12 month rolling period No fuel oil firing May 1 through September 30 (inclusive except as allowed by Table 8 Item 16)	99.4 lb/hr 0.035 lb/MMBtu 9.0 ppmvd at 15% O_2	Tr. X274532
				75 ppm @ 15% O_2, 4-hour rolling average [6]	40 CFR Part 60, Subpart GG, §60.332(a)(1)
		CO		37.9 lb/hr 0.017 lb/MMBtu 7.0 ppmvd at 15% O_2	Tr. X274532
		VOC		26.9 lb/hr 0.01 lb/MMBtu 7.0 ppmvd at 15% O_2	Tr. X274532
		$PM/PM_{10}/PM_{2.5}$		56.8 lb/hr 0.02 lb/MMBtu	Tr. X274532
		SO_2		4.5 lb/hr 0.0016 lb/MMBtu	Tr. X274532
		NH_3		40.8 lb/hr 0.014 lb/MMBtu 10.0 ppmvd at 15% O_2	Tr. X274532
		Sulfuric acid mist		3.07 lb/hr 0.001 lb/MMBtu	Tr. X274532

Table 3A					
EU	**Fuel/Raw Material**	**Pollutant**	**Operational / Production Limit**	**Emission Limits/Standards [1, 2, 3, 4,]**	**Applicable Regulation and/or Approval Number**
1	Fuel Oil	Sulfur Content		≤ 0.0015% by weight	Tr. X274532; 310 CMR 7.05(1)(a)(1)
	Natural Gas and/or Fuel Oil				
		SO_2	NA	The Permittee shall hold SO_2 allowances, as of the allowance transfer deadline, in the Permittee's compliance account not less than the total annual emissions of SO_2 for the previous calendar year; and comply with the applicable Acid Rain emissions limitations for SO_2	310 CMR 7.00: Appendix C(3)(n); 40 CFR 72.9; and Acid Rain II Permit issued 6/14/2005
		Sulfur Content		≤ 0.8 percent by weight (8000 ppmw)	40 CFR Part 60, Subpart GG, §60.333(b)
		Opacity		Opacity shall not exceed 10%, six-minute block average, during all modes of operation including startups, shutdowns, and periods of protective load shedding.	Tr. X274532
		NOx		NA	310 CMR 7.00: Appendix C(3)(n); 40 CFR 72.9; and Acid Rain II Permit issued 6/14/2005
		CO_2		The Permittee shall hold CO_2 allowances in a compliance account in an amount not less than the CO_2 Budget Emissions Limitation.	310 CMR 7.70(1)(e)3; (State Only Requirement)
		CO_2		The Permittee shall hold CO_2 allowances in an allowance registry account in an amount equal to or greater than the sum of: • The prior calendar year CO_2 emissions, minus any emissions for which compliance is deferred in accordance with 310 CMR 7.74(6)(d); and • Twice the amount of CO_2 emissions emitted during the year before the prior calendar year if compliance was deferred pursuant to 310 CMR 7.74(6)(d).	310 CMR 7.74(6)(e); (State Only Requirement)

Table 3A					
EU	**Fuel/Raw Material**	**Pollutant**	**Operational / Production Limit**	**Emission Limits/Standards [1, 2, 3, 4,]**	**Applicable Regulation and/or Approval Number**
2	Cooling Water	PM/PM_{10}	9,160 mg/L total dissolved solids as potassium chloride, annual average	9.8 tpy 1.63 tpm	Tr. X274532
3	ULSD	Sulfur Content		≤ 0.0015% by weight	310 CMR 7.05(1)(a)(3); 40 CFR 63.6604
Facility-wide [7, 8]		NOx	NA	170 [9] tpy	Tr. X274532
		CO	NA	475 tpy	Tr. X274532
		VOC		49 [10] tpy	Tr. X274532
		$PM/PM_{10}/PM_{2.5}$		100 [11] tpy	Tr. X274532
		SO_2		28.9 tpy	Tr. X274532
		NH_3		153 [12] tpy	Tr. X274532
		Sulfuric acid mist		11.2 tpy	Tr. X274532
		Smoke		< No. 1of Chart, except ≥ No. 1 to < No. 2 of Chart for ≤ 6 minutes during any one hour, no time to equal or exceed No. 2 of the Chart	310 CMR 7.06(1)(a)
		Opacity		≤ 20% except > 20% to ≤ 40% for ≤ 2 minutes during any one hour	310 CMR 7.06(1)(b)
		Greenhouse Gas	NA	NA	310 CMR 7.71 (State Only Requirement)
		SF_6	NA	The Permittee shall ensure that any newly manufactured GIS that is placed in operation on or after January 1, 2015 is represented by the manufacturer to have a 1.0% maximum annual leak rate .	310 CMR 7.72(4)(a) (State Only Requirement)

Table 3A Notes:

1. Operational/production limits and emission limits are the maximum allowed.
2. The Permittee shall comply with the lb/hr, lb/MMBtu, and ppmvd emission limits in Table 3A based on a one-hour block average.
3. When operating on natural gas, the emission limits at loads between 100% and 75% load are calculated by taking a linear interpolation of the 100% and 75% load emission limits. When operating on natural gas, the emission limits at loads between 75% and 50% load are calculated by taking a linear interpolation of the 75% and 50% load emission limits.
4. The EU 1 lb/hr, lb/MMBTU, and ppmvd emission limits in Table 3 shall apply at all times EU 1 is operating except during startup, shutdown, and periods of protective load shedding, unless otherwise noted. Emission limits in Table 3B for PM/PM_{10}/$PM_{2.5}$, CO, NH_3, NOx and opacity shall apply during startup, shutdown, and periods of protective load shedding
5. % Load refers to the operational load as calculated by the formula: % Load = actual EU 1 gross MW output/calculated EU 1 maximum gross MW output * 100.
6. In accordance to 40 CFR Part 60, Subpart GG, §60.334, a "4-hour rolling average NO_x concentration" is the arithmetic average of the average NO_x concentration measured by the CEMS for a given hour (corrected to 15% O_2) and the three, unit operating hour average NO_x concentrations immediately preceding that unit operating hour. The standard does not apply during startup, shutdown or malfunction. An excess emission that occurs during a startup, shutdown or malfunction period will be reported in accordance with 40 CFR Part 60.7(c) and Subpart GG 60.334(j)(5) to EPA and MassDEP Central Regional Office in the Semi-Annual Report.
7. Annual emissions are facility-wide emissions and are total tons per year (TPY) limits based on consecutive 12-Month rolling totals. 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.
8. See Table 5 Item 17 regarding determining compliance with the tpy emission limits.
9. Includes 3.0 tpy NOx from the emergency fire pump engine assuming 300 hours per year maximum allowable operation for emergency purposes only, including normal maintenance and testing, as defined in 310 CMR 7.00.
10. Includes 1.0 tpy VOC emitted from miscellaneous sources.
11. Includes 9.8 tpy PM/PM_{10} emitted from cooling tower drift and 0.6 tpy PM/PM_{10} from miscellaneous sources.
12. Includes breathing and working losses from ammonia storage tanks.

Table 3A Key:

CO = Carbon monoxide
CO_2 = Carbon dioxide
CFR = Code of Federal Regulations
CMR = Code of Massachusetts Regulations
EU = Emission Unit
HAP = Hazardous air pollutant
lb = pound
lb/hr = pound per hour
lb/MMBtu = pounds per million British thermal units
mg/L = milligrams per liter
NA = not applicable
NH_3 = Ammonia
NOx = Nitrogen oxides
MW = Megawatt
ppmvd at 15% O_2 = parts per million by volume, dry basis, corrected to 15 percent oxygen
PM = Particulate matter, filterable portion only
PM_{10} = Particulate matter less than or equal to 10 microns in diameter, (filterable and condensable)
$PM_{2.5}$ = Particulate matter less than or equal to 2.5 microns in diameter, (filterable and condensable)
SO_2 = Sulfur dioxide
tpm = tons per month
tpy = tons per 12 month rolling period
ULSD – Ultra Low Sulfur Diesel
VOC = Volatile organic compounds
% = percent

Table 3B							
Startup, Shutdown, and Protective Load Shedding Emission Limits [1]							
EU	**Natural Gas**						
	Pollutant	**Hot/Warm Startup [2]**	**Extended Hot/Warm Startup [2]**	**Cold Startup [2]**	**Extended Cold Startup [2]**	**Shutdown [2]**	**Protective Load Shedding [3]**
1	$PM/PM_{10}/PM_{2.5}$	0.05 lb/MMBtu					
	NOx	800 lb/ event	1400 lb/event	1000 lb/event	2500 lb/event	900 lb/ event	900 lb/event
	CO	2500 lb/event	3000 lb/event	3500 lb/event	5000 lb/event	600 lb/ event	3600 lb/event
	NH_3	50 lb/event	100 lb/event	75 lb/event	1255 lb/event	300 lb/ event	300 lb/event
	Total Hours per Event	3	6	4	8	2	4
	Opacity	Opacity shall not exceed 10%, six-minute block average, during all modes of start, shutdown, and protective load shedding operations.					

Table 3B Notes:

1. In accordance with Plan Approval Tr. X274532, the EU 1 emission limits in Table 3B shall apply during startup, shutdown, and periods of protective load shedding.
2. An "event" with respect to startups and shutdowns is a hot/warm startup, extended hot/warm startup, cold startup, extended cold startup or shutdown. The definition and time period for each event is listed in Table 8 Items 3 to 9.
3. The definition and time period for a protective load shedding event is listed in Table 8 Items 10 and 11.

Table 3B Key:

CO = Carbon monoxide
CMR = Code of Massachusetts Regulations
EU = Emission Unit
lb = pound
lb/MMBtu = pounds per million British thermal units
NH_3 = Ammonia
NOx = Nitrogen oxides
PM = Particulate matter, filterable portion only
PM_{10} = Particulate matter less than or equal to 10 microns in diameter, (filterable and condensable)
$PM_{2.5}$ = Particulate matter less than or equal to 2.5 microns in diameter, (filterable and condensable)
SO_2 = Sulfur dioxide
% = percent

B. COMPLIANCE DEMONSTRATION

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

Table 4

EU	Monitoring and Testing Requirements
1	1. In accordance with Tr. X274532, the Permittee shall install, calibrate, and test a continuous opacity monitor ("COM"), continuous emission monitors ("CEMS") and a data acquisition system ("DAS") to measure and record the levels of oxygen, nitrogen oxides, carbon monoxide, opacity and ammonia in the flue gas of EU 1. The Permittee shall operate the COM, CEMS and DAS when firing fuel oil and operate the CEMS and DAS when firing natural gas.
	2. In accordance with Tr. X274532, the Permittee shall ensure that the COM, all CEMS and recording equipment comply with MassDEP approved performance and location specifications. Notwithstanding the requirements of 40 CFR 60 Subpart GG, the equipment shall conform with the EPA monitoring specifications in 40 CFR 60.13 and 40 CFR 60 Appendices B and F, and all applicable portions of 40 CFR 72 and 75.
	3. In accordance with Tr. X274532, unless specified otherwise in this Permit, the Permittee shall use and maintain its COM and CEMS system as a "direct-compliance" monitor to measure opacity, NOx, CO, O_2 and NH_3. 'Direct-compliance' monitors generate data that legally documents the compliance status of a source. The MassDEP shall utilize the data generated by the 'direct-compliance' monitors, MassDEP recognized emission testing, or other credible evidence for compliance and enforcement purposes.
	4. In accordance with Tr. X274532, when combusting fuel oil, the Permittee shall maintain the COM in an accurate operating condition and shall install, calibrate, certify, and operate the COM in accordance with 40 CFR 60 Appendix B, Performance Specifications ("PS") and apply the quality assurance and quality control procedures in 40 CFR 60 Appendix F, Procedure 3.
	5. In accordance with Tr. X274532, the Permittee shall comply with all the applicable monitoring requirements in 40 CFR 72 and 75 (Acid Rain Program). The Permittee shall conduct a relative accuracy test audit (RATA) for all CEMS in accordance with the procedures in 40 CFR 60 Appendices B and F and 40 CFR 75 Appendices A and B. The Permittee shall submit a proposed RATA protocol 30 days before testing unless there are no changes from a previously submitted RATA protocol. The Permittee shall submit a final RATA report within 60 days of completion of RATA.
	6. In accordance with Tr. X274532, the Permittee shall equip the COM and CEMS with audible and visible alarms. The Permittee shall set the alarms to activate when emissions are within 2% of the opacity limit and within 5% of the lb/hr emission limits in Table 3A and the Startup and Shutdown lb/event emission limits in Table 3B, of this Permit.
	7. In accordance with Tr. X274532, the Permittee shall operate the COM while firing fuel oil and shall operate each CEM while firing natural gas and fuel oil except for periods of COM and CEM calibration checks, zero and span adjustments, preventative maintenance, and periods of malfunction.
	8. In accordance with Tr. X274532, the Permittee shall determine NOx and CO emissions during startup, at loads below 20% when the emission rate exceeds the measurement range of the CEMs using the following formulas [1]: $NOx\ (lb/hr) = -0.0002x^4 + 0.017x^3 + -0.3669x^2 + 4.3247x + 109.08$ $CO\ (lb/hr) = -2.495x^2 + 198.95x + 2260$ Where x = the percent load.
	9. In accordance with Tr. X274532, the Permittee shall obtain and record emission data from the COM and each CEM for at least 95% of the emission unit operating hours every calendar quarter, except for periods of COM and CEMS calibration error checks, zero and span adjustments, maintenance, and periods of malfunction.
	10. In accordance with Tr. X274532, 40 CFR 60.334, and 40 CFR 75 Appendix D Section 2.3, as appropriate, the Permittee shall monitor the sulfur content and gross calorific value of natural gas.
	11. In accordance with Tr. X274532, 40 CFR 60.334, and 40 CFR 75 Appendix D Section 2.2, as appropriate, the Permittee shall monitor the sulfur content and gross calorific value of fuel oil.

Table 4

EU	Monitoring and Testing Requirements
1	12. In accordance with Tr. X274532 and 40 CFR 75, the Permittee shall install and operate a continuous monitoring system to monitor the fuel consumption. The continuous monitoring system shall be accurate to within plus or minus 5%.
	13. In accordance with Tr. X274532, the Permittee shall install and operate continuous monitors and alarm systems to monitor temperature at the inlet to the SCR and the CO catalysts.
	14. In accordance with Tr. X274532 and 40 CFR 52.21(m), the Permittee shall not be subject to pre-construction monitoring since the maximum predicted air quality impacts of the Facility are less than the Prevention of Significant Deterioration monitoring exemption levels.
	15. In accordance with Tr. X274532, the Permittee shall develop and maintain a quality assurance/quality control (QA/QC) program for the long-term operation of the CEMS which conforms to 40 CFR 60, Appendix F and all applicable portions of 40 CFR 72 and 75. The MassDEP has previously approved the QA/QC program.
	16. In accordance with Tr. X274532, whenever the COM has not operated for three or more consecutive hours and EU 1 is firing fuel oil, the Permittee shall determine compliance with the allowable opacity limits in accordance with 40 CFR 60 Appendix A-4 Method 9 at least once per work shift during daylight hours.
	17. In accordance with Tr. X274532, the Permittee shall construct the Facility to accommodate the emissions testing requirements of this Permit. All emissions testing shall be conducted in accordance with the Environmental Protection Agency tests as specified in the 40 CFR 60, Appendix A, 40 CFR 60 Subpart GG, 40 CFR 72 and 75, or by another method which has been correlated to the above method to the satisfaction of the MassDEP.
	18. In accordance with Tr. X274532, if and when MassDEP requires it, the Permittee shall conduct emission testing in accordance with EPA Reference Test Methods and 310 CMR 7.13 Stack Testing.
	19. In accordance with Tr. X274532, the Permittee shall conduct initial compliance tests to demonstrate compliance with the emission limits (lb/hr, lb/MMBtu, ppmvd and opacity) in Table 3A for the following pollutants as determined necessary by MassDEP. Emission testing while firing natural gas shall be conducted at 100%, 75% and 50% load. Emission testing while firing fuel oil shall be conducted at 100% and 75% load.
	20. In accordance with Tr. X274532, the Permittee shall conduct annual stratification testing for NOx and O_2. Stratification testing shall be conducted in accordance with Method 20. The purpose of stratification testing is to document a representative CEMS sampling location for NOx in accordance with annual RATA testing as well as to satisfy Method 20 initial testing requirements. The requirement to perform an annual stratification test may be changed by the MassDEP, in response to a request by the Permittee, if in the opinion of the MassDEP such testing is no longer needed.

Natural Gas Firing	Fuel Oil Firing
Nitrogen oxides	Nitrogen oxides
Carbon monoxide	Carbon monoxide
Volatile organic compounds	Volatile organic compounds
Ammonia	Ammonia
Particulate matter	Particulate matter
Opacity	Opacity
	Sulfuric acid mist

Table 4	
EU	**Monitoring and Testing Requirements**
1	21. In accordance with 40 CFR 72.9, 40 CFR 75, and the Facility Acid Rain Permit issued June 14, 2005, the Permittee shall comply with all monitoring requirement for NOx and SO2 emissions. The requirements of 40 CFR Part 75 shall not affect the responsibility of the Permittee to monitor emissions of other pollutants from or other characteristics of EU1.
	22. In accordance with 310 CMR 7.70(8) and the CO2 Budget Trading Emissions Control Plan (Tr. X006500), the Permittee shall comply with all monitoring and testing requirements for annual CO_2 emissions, net electrical output, and net steam output. (State Only Requirement).
2	23. In accordance with 310 CMR 7.00 Appendix C(9), the Permittee shall monitor the cooling tower water for total dissolved solids ("TDS") as potassium chloride at least once per month and calculate a rolling annual average mg/L TDS.
3	24. In accordance with 40 CFR 63, Subpart ZZZZ, §63.6625(e), operate and maintain the stationary Reciprocating Internal Combustion Engine (RICE) and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
	25. In accordance with 40 CFR 63, Subpart ZZZZ, §63.6625(f), the Permittee install a non-resettable hour meter if one is not already installed.
	26. In accordance with 40 CFR 63, Subpart ZZZZ, §63.6625(h), the Permittee install minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.
	27. In accordance with 40 CFR 63, Subpart ZZZZ, §63.6640(f), the Permittee shall operate the emergency engine in accordance with the requirements in paragraphs (f)(1), (2), and (4) of this section: a) There is no time limit on the use of emergency stationary RICE in emergency situations. b) The Permittee may operate the emergency stationary RICE for any combination of the purposes specified in paragraph (f)(2) of §63.6640(f) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (f) (4) of §63.6640(f) counts as part of the 100 hours per calendar year. c) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. d) Emergency stationary RICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in Item # 27 b above. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
	28. In accordance with 40 CFR 63, Subpart ZZZZ, Table 2d, the Permittee shall: a) Change oil and filter every 500 hours of operation or annually, whichever comes first; b) Inspect air cleaner for every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and c) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

Table 4	
EU	**Monitoring and Testing Requirements**
3	29. In accordance with 40 CFR 63, Subpart ZZZZ, §63.6625(i), the Permittee may utilize an oil analysis program as an option to extend the specified oil change requirement in Table 2d to this subpart (see Item 28a. above).
Facility-wide	30. In accordance with Tr. X274532, if the MassDEP requests additional emissions testing, the Permittee must obtain written approval of the emission testing protocol. A detailed description of sampling port locations, sampling equipment, sampling and analytical procedures, and operating conditions for such tests shall be submitted 30 days prior to testing of the Facility to the MassDEP.
	31. In accordance with Tr. X274532, Permittee shall monitor all operations to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.
	32. In accordance with 310 CMR 7.71(1) and Appendix C(9), the Permittee shall establish and maintain data systems or record keeping practices (e.g. fuel use records, SF_6 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)
	33. In accordance with 310 CMR 7.72(8)(a) and (b) the Permittee shall record, no less than annually, the amount of SF_6 added to each piece of active GIS equipment that was placed under the Permittee's ownership, lease, operation, or control on or after January 1, 2015. (State Only Requirement).

Table 4 Notes:

1. See the letter from Mark D. Winne to Thomas Cusson of February 28, 2003.

Table 4 Key:

CEMS = Continuous Emission Monitors
CFR = Code of Federal Regulations
CMR = Code of Massachusetts Regulations
CO = Carbon monoxide
CO_2 = Carbon dioxide
COM = Continuous Opacity Monitor
DAS = Data Acquisition System
EPA = Environmental Protection Agency
EU = Emission Unit
NH_3 = Ammonia
NOx = Nitrogen oxides
O_2 = Oxygen
PM = Particulate matter, filterable portion only
PM_{10} = Particulate matter less than or equal to 10 microns in diameter, filterable and condensable portions
$PM_{2.5}$ = Particulate matter less than or equal to 2.5 microns in diameter, filterable and condensable portions
RATA = Relative accuracy test audit
SCR = Selective catalytic reduction
SF6 = Sulfur hexafluoride
SO_2 = Sulfur dioxide
VOC = Volatile organic compounds
% = percent

Table 5	
EU	**Record Keeping Requirements**
1	1. In accordance with Tr. X274532, 40 CFR 52.21(r)(6)(iii) and 310 CMR 7.00: Appendix A(2)(b), the Permittee shall calculate and maintain a record of annual emissions, in tons per year on a calendar basis, for a period of 10 years following resumption of regular operations after installation of LLTD and SPAG.
	2. In accordance with Tr. X274532, the Permittee shall count any period of excess emission of CO as a period of excess emission of VOC, and the excess emission of VOC shall be counted towards the tons per year emission limit for VOC in Table 3A.
	3. In accordance with Tr. X274532, the Permittee shall keep the following records on site for the life of the Facility: a) output from all continuous emission monitors for flue gas emissions, b) fuel consumption, c) SCR and CO control system inlet temperatures, and d) EU 1 inlet and ambient temperatures. The Permittee shall make these records available to the MassDEP on request.
	4. In accordance with Tr. X274532, the Permittee shall maintain a log to record each period that fuel oil is fired in EU 1. The log shall indicate the date, duration of firing, amount of fuel oil fired, and name of the operator making the entry.
	5. In accordance with Tr. X274532, the Permittee shall record emission data obtained from each CEM and COM as required by Table 4 Item 9.
	6. In accordance with Tr. X274532, the Permittee shall record the fuel consumption as required by Table 4 Item 12.
	7. In accordance with Tr. X274532, the Permittee shall maintain records to demonstrate compliance with Table 8 Item 21.
	8. In accordance with Tr. X274532, 40 CFR 60.334 and 40 CFR 75 Appendix D Section 2, as applicable, the Permittee shall maintain records of the sulfur content and gross calorific value of natural gas and fuel oil that are required to be monitored in Table 4 Items 10 and 11.
	9. In accordance with Tr. X274532, the Permittee shall comply with all applicable record keeping requirements in 40 CFR 60, 72, 73, 75 and 77.
	10. In accordance with 40 CFR 72.9, 40 CFR 75, and the Facility Acid Rain Permit issued June 14, 2005 the Permittee shall keep on site at the source each of the following documents for a period of 5 years form the date the document is created. This Period may be extended for cause, at any time prior to the end of 5 years, in writing by EPA or MassDEP; a) Certificate of representation for the designated representative for the source and all supporting documents; b) All emissions monitoring information, to the extent that a 3-year retention period under 40 CFR 75, the records shall be kept on site for a period of 3 years instead of 5 years; c) Copies of all reports, compliance certifications, and other submissions and all records made or required by the Acid Rain program.
	11. In accordance with 310 CMR 7.70(1), (2), (8) and CO2 Budget ECP, Tr. X006500, the Permittee shall keep on site at the source all records required under 310 CMR 7.70(1), 310 CMR 7.70(2) and 310 CMR 7.70(8), or unless otherwise stated by MassDEP, for a period of 10 years. (State Only Requirement).
	12. In accordance with 310 CMR 7.74(8) the Permittee shall keep on site at the source all records required under 310 CMR 7.74, for a period of 3 years, unless otherwise required by MassDEP. (State Only Requirement).

Table 5	
EU	**Record Keeping Requirements**
2	13. In accordance with 310 CMR 7.00 Appendix C(10)(b), the Permittee shall maintain records of the cooling tower water TDS sufficient to demonstrate compliance with Table 3A and Table 4, Item 23.
3	14. In accordance with 40 CFR 63, Subpart ZZZZ, §63.6655(e), the Permittee shall keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the Facility operated and maintained the stationary RICE and after-treatment control device (if any) according to the Permittee's own maintenance plan.
	15. In accordance with 40 CFR 63, Subpart ZZZZ, §63.6655(f), the Permittee shall keep records of the hours of operation of the engine recorded through the non-resettable hour meter. The Permittee shall document how many hours are spent for emergency operation; including what classified the operation as emergency and how many hours are spent for non-emergency operation.
Facility-wide	16. In accordance with Tr. X274532, the Permittee shall maintain adequate records on-site to demonstrate compliance status with all operational, production, and emission limits contained in Tables 3A and 3B above. Records shall also include the actual emissions of air contaminants emitted for each calendar month and for each consecutive twelve-month period. These records shall be compiled no later than the 15th day following each month. An electronic version of the MassDEP approved record keeping form, in Microsoft Excel format, can be downloaded at: http://www.mass.gov/eea/agencies/massdep/air/approvals/limited-emissions-record-keeping-and-reporting.html#WorkbookforReportingOn-SiteRecordKeeping.
	17. In accordance with Tr. X274532, the Permittee shall include the quantification of all periods of excess emissions, including those attributable to an emergency or malfunction and startup, shutdown, protective load shedding or equipment cleaning, in the determination of twelve-month period emissions and any determination of compliance with the TPY emission limits in Tables 3A and 3B of this Permit.
	18. In accordance with Tr. X274532, the Permittee shall maintain a record of routine maintenance activities performed on the approved EUs, PCDs and monitoring equipment. The records shall include, at a minimum, the type or a description of the maintenance performed and the date and time the work was completed.
	19. In accordance with Tr. X274532, the Permittee shall maintain a record of all malfunctions affecting air contaminant emission rates on the approved EUs, PCDs and monitoring equipment. At a minimum, the records shall include: date and time the malfunction occurred; description of the malfunction; corrective actions taken; the date and time corrective actions were initiated and completed; and the date and time emission rates and monitoring equipment returned to compliant operation.
	20. In accordance with Tr. X274532, the Permittee shall maintain all operating and monitoring records and logs for the life of the Facility.
	21. In accordance with Tr. X274532, the Permittee shall maintain records of monitoring and testing required by Table 4.
	22. In accordance with Tr. X274532, the Permittee shall maintain a copy of the Tr. X274532 Plan Approval, the underlying Application and the most up-to-date SOMP for the EUs and PCDs approved herein on-site.
	23. In accordance with Tr. X274532 and 310 CMR 7.12(3)(c), the Permittee shall maintain records to ensure sufficient information is available to comply with 310 CMR 7.12 Source Registration.
	24. In accordance with 310 CMR 7.12(3)(c), the Permittee shall maintain copies of the Source Registration and other information supplied to MassDEP, to comply with 310 CMR 7.12, for five years from the date of the submittal.

Table 5	
EU	**Record Keeping Requirements**
Facility-wide	25. In accordance with Tr. X274532 and 310 CMR 7.00 Appendix C(10)(b), unless otherwise specified, the Permittee shall maintain records required by the Tr. X274532 Plan Approval on-site for a minimum of five (5) years.
	26. In accordance with Tr. X274532, the Permittee shall make records required by the Tr. X274532 Plan Approval available to MassDEP and EPA personnel upon request.
	27. 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).
	28. In accordance with 310 CMR 7.72(8)(c) the Permittee shall retain on-site documents sufficient to demonstrate compliance with 310 CMR 7.72 for a period of 5 years from the creation of the document for any active piece of GIS equipment placed under the Permittee's ownership, lease, operation, or control on or after January 1, 2015. (State Only Requirement).

Table 5 Key:

CO = Carbon monoxide
CFR = Code of Federal Regulations
CMR = Code of Massachusetts Regulations
CEM = Continuous Emission Monitor
EU = Emission Unit
LLTD = Low Load Turn Down
PCD = Pollution Control Device
SCR = Selective catalytic reduction
SOMP = Standard Operation and Maintenance Plan
SPAG = Steam Power Augmentation
TDS = Total Dissolved Solids
VOC = Volatile Organic Compound

Table 6	
EU	**Reporting Requirements**
1	1. In accordance with Tr. X274532, 40 CFR 52.21(r)(6)(iv) and 310 CMR 7.00: Appendix A(2)(b), the Permittee shall submit a report to MassDEP within 60 days of the end of each calendar year for which records are generated under Table 5 Item 1.
	2. In accordance with Tr. X274532, the Permittee shall submit a quarterly report in writing and in digital format, in a format acceptable to MassDEP, to the Department of Environmental Protection, Central Regional Office, Bureau of Air and Waste, 8 New Bond Street, Worcester, Massachusetts, 01606. The report will be submitted by the end of the following month and will contain at least the following information: a) CEMS and COM periods of excess emissions; b) For each period of excess emissions or excursions from allowable operating conditions, the Permittee shall list the duration, cause, the response taken, and the amount of excess emissions (in pounds). Periods of excess emissions shall include periods of startup, shutdowns, protective load shedding, malfunction, emergency, equipment cleaning, and upsets or failures associated with the emission control system or CEMS; c) A tabulation of periods of operation, including the time of the beginning and ending of startup, shutdown, and protective load shedding;

Table 6	
EU	**Reporting Requirements**
	d) For each period during which there was any firing of fuel oil, the quarterly report will include the date of fuel oil firing, the amount of fuel oil fired, the reasons and duration of firing. This report will summarize year-to-date the number of hours of fuel oil firing and the total amount of fuel oil fired, and e) A tabulation of each extended startup and protective load shedding event, including the reason for the event. Periods of extended startup or protective load shedding that meet the requirements of Table 8 Items 3 through 11 are not considered deviations from allowable operating conditions.
1	3. In accordance with Tr. X274532, the Permittee shall provide the name, location, e-mail address (if any), telephone number and facsimile transmission number (if any) of the designated representative ("DR") to the town of Charlton, to the MassDEP and to any other person who so requests it. The Permittee shall keep the DR contact information current at all times.
	4. In accordance with 40 CFR 60, §60.7(c) and 40 CFR 60, Subpart GG, §60.334(j), the Permittee shall submit reports of excess emissions and monitor downtime to EPA Region 1. Excess emissions shall be reported for all periods of unit operation, including start-up, shutdown and malfunction. All reports shall be postmarked by the 30th day following the end of each six-month period.
	5. In accordance with 40 CFR 75, §75.61(a)(5), the Permittee shall notify EPA and MassDEP of QA testing required for Relative Accuracy Test Audits (RATAs) and Appendix E/LME (Low Mass Emission) unit tests. Notification must be made at least 21 days prior to the scheduled test date. If tests must be rescheduled, 24 hours notice must be given.
	6. In accordance with 40 CFR 75, a previously approved RATA protocol may be referenced at the time of test notification provided that the referenced protocol was completed in accordance with current 40 CFR 75 procedures, addresses all previous MassDEP protocol comments to the satisfaction of the MassDEP, and none of the information has changed. If a revised protocol must be submitted, the Permittee shall submit it at least 21 days prior to the scheduled test date.
	7. In accordance with 310 CMR 7.00 Appendix C(10), the Permittee shall submit an electronic copy of the RATA or Appendix E/LME test results to MassDEP Central Regional Office within 45 days of completion of tests. The electronic results must be submitted in the quarterly electronic data report (EDR) to EPA.
	8. In accordance with 40 CFR 72.9, 40 CFR Part 75 and the Facility Acid Rain Permit issued June 14, 2005, the Permittee shall submit the MassDEP Central Regional Office and EPA any notification or testing protocol.
	9. In accordance with 40 CFR 72.9, 40 CFR Part 75 and the Facility Acid Rain Permit issued June 14, 2005, the Permittee shall submit a Quarterly SO_2 report to EPA within 30 days following the end of each calendar quarter.
	10. In accordance with 40 CFR 72.9 and 40 CFR Part 75, the Permittee shall submit a Quarterly NOx report to EPA within 30 days following the end of each calendar quarter.

Table 6	
EU	**Reporting Requirements**
1	11. In accordance with 40 CFR 77 and the Facility Acid Rain Permit issued June 14, 2005, the Permittee shall submit a proposed offset plan in any calendar years where EU1 has excess emissions. In addition, the Permittee shall pay any penalties specified in 40 CFR Part 77 and comply with the terms of an approved offset plan.
	12. In accordance with 310 CMR 7.70(8)(d), the Permittee shall submit to the MassDEP CERO Regional Office any notification of testing or any testing protocol in compliance with the requirements of 40 CFR 75.61. (State Only Requirement).
	13. In accordance with 310 CMR 7.70(8)(e)3 and Tr. X006500, the Permittee shall submit a Monitoring System certification to the MassDEP CERO Regional Office within 45 days after completing all CO_2 monitoring system initial certification or recertification tests required under 310 CMR 7.70(8)(b). (State Only Requirement).
	14. In accordance with 310 CMR 7.70(4)(a)1 and Tr. X006500, the Permittee shall submit a Triennial Compliance Certification Report for each control period electronically in the RGGI CO_2 Allowance Tracking System (COATS) to MassDEP by March 1st of the calendar year following the control period. (State Only Requirement).
	15. In accordance with 310 CMR 7.70(8)(h)6 and Tr. X006500, the Permittee shall submit an Annual Net Electric Output Report for each calendar year electronically to MassDEP's agent in a format prescribed by MassDEP by March 1st for the preceding calendar year. (State Only Requirement).
	16. In accordance with 310 CMR 7.70(8)(e)4.b and Tr. X006500, the Permittee shall submit a Quarterly CO_2 Emissions Report electronically to EPA within 30 days following the end of the calendar quarter covered by the report. (State Only Requirement).
	17. In accordance with Tr. X274532, the Permittee shall notify MassDEP in writing within five (5) days each of the following becoming ready for commercial operation: a) steam power augmentation, and b) operation at less than 50% load.
	18. In accordance with 310 CMR 7.74(7)(a) the Permittee shall submit to MassDEP by February 1st, 2019, and each February 1st thereafter, a CO_2 Emissions Report. (State Only Requirement).
	19. In accordance with 310 CMR 7.74(7)(b) the Permittee shall submit to MassDEP by March 1st, 2019 and each March 1st thereafter, a Compliance Certification Report. (State Only Requirement).
Facility-wide	20. In accordance with Tr. X274532, the Permittee shall submit to MassDEP all information required by this Permit over the signature of a "Responsible Official" as defined in 310 CMR 7.00 or a designee appointed by a Responsible Official and shall include the Certification statement in 310 CMR 7.01(2)(c).

Table 6	
EU	**Reporting Requirements**
Facility-wide	21. In accordance with Tr. X274532, the Permittee shall provide notice of an emergency or malfunction that: a) causes emissions to the ambient air that exceed any emission limits, including noise limits, in this Permit, or b) causes the release or threat of a release of ammonia and/or upsets or malfunctions to the ammonia handling or delivery systems, or c) causes a condition of air pollution to the Central Regional Office of MassDEP, BAW Permit Chief by telephone: 508-767-2845, email: roseanna.stanley@mass.gov and CERO.Air@mass.gov, or fax: 508-792-7621, **within four hours** (or as soon as reasonably practical) after discovery of the emergency or malfunction and in writing within two (2) business days after discovery of the emergency or malfunction. If the initial notice is not provided within four (4) hours of discovery, then the Permittee shall have the burden of establishing that the initial notice was provided as soon as reasonably practical in any subsequent enforcement action. "*Emergency*" means any situation arising from sudden and reasonably unforeseeable events beyond the control of this source, including acts of God, which 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 these things. "*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.
	22. In accordance with Tr. X274532, the Permittee shall notify the Boards of Health in the Towns of Charlton and Southbridge as soon as reasonably practical of the emergency or malfunction and shall send both Towns a copy of any written notice made to the MassDEP to these Boards of Health.
	23. In accordance with Tr. X274532, the written notice must contain a description of the emergency or malfunction, identification of the exceedance(s), duration of the exceedance(s), reason for the exceedance(s), any steps taken to mitigate emissions, an estimate of the quantity of emissions released because of the emergency or malfunction, any corrective actions taken and action plan to prevent future exceedance(s).
	24. In accordance with Tr. X274532, the Permittee must comply with all notification procedures required under M.G.L. c. 21E, Spill Notification Regulations.

Table 6	
EU	**Reporting Requirements**
Facility-wide	25. In accordance with Tr. X274532, the reporting requirements of this Permit for an emergency or malfunction do not supersede, limit, or make inapplicable any reporting obligation under federal law, including but not limited to 42 U.S.C. sections 9603 or 11004.
	26. In accordance with Tr. X274532, the Permittee shall comply with all applicable reporting requirements in 40 CFR 60, 72, 73, 75 and 77.
	27. In accordance with Tr. X274532, the Permittee shall report annually to MassDEP, in accordance with 310 CMR 7.12, all information as required by the Source Registration/Emission Statement Form.
	28. In accordance with Tr. X274532 and 310 CMR 7.00, Appendix C(10)(a), the Permittee shall submit any records or reports required to be submitted to the MassDEP in writing and in digital format in a format acceptable to the MassDEP.
	29. In accordance with Tr. X274532 and 310 CMR 7.13(1) and 7.13(2), if determined by MassDEP that stack testing is necessary to ascertain compliance with the Department's regulations or design approval provisos, the Permittee shall cause such stack testing to be summarized and submitted to MassDEP as prescribed in the agreed to pretest protocol.
	30. In accordance with Tr. X274532 and 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).
	31. In accordance with Tr. X274532 and General Condition 10 the Permittee shall submit the Annual Compliance report to MassDEP and EPA by January 30 of each year.
	32. 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).
	33. In accordance with 310 CMR 7.72(4)(c) the Permittee shall submit a Gas-Insulated Switchgear Leak Rate Exceedance Reporting Form by April 15th of the following year for any active piece of GIS equipment placed under the Permittee's ownership, lease, operation, or control on or after January 1, 2015 that does not meet the 1.0% maximum annual leak rate. (State Only Requirement).

Table 6 Key

BAW = Bureau of Air and Waste
CO = Carbon monoxide
CO_2 = Carbon dioxide
CFR = Code of Federal Regulations
CMR = Code of Massachusetts Regulations
CEMS = Continuous Emission Monitors
COM = Continuous Opacity Monitor
EU = Emission Unit
NH_3 - Ammonia
NOx = Nitrogen oxides
QA = Quality Assurance
SO_2 = Sulfur dioxide
U.S.C. = United States Code
US EPA = United States Environmental Protection Agency

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 Vehicle Use	Facility employs fewer than 250 people
40 CFR 64 – Compliance Assurance Monitoring	Facility utilizes a continuous compliance determination method (NO_x/CO CEMS), as defined in 40 CFR 64.1, and is therefore exempt from 40 CFR 64.

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 Table 3, 4, 5, and 6:

Table 8

EU	Special Terms and Conditions
1	1. In accordance with Tr. X274532, the Permittee shall keep emission rates from the Facility at the lowest practical level at all times but shall not exceed the emission limits specified in Tables 3A and 3B of this Permit.
	2. In accordance with Tr. X274532, the Permittee shall not operate EU 1 on fuel oil at less than 75% load except during startup, shutdown, periods of protective load shedding, and switching between fuels.
	3. In accordance with Tr. X274532, a "startup" is defined as an EU 1 event that begins with the initiation of combustion and concludes with the achievement of nominally 50% load when firing natural gas or 75% load when firing fuel oil.
	4. In accordance with Tr. X274532, a "hot/warm startup" is when: a) EU 1 has had more than 120 minutes flame time at or above 50% load in the 24 hours before the initiation of combustion, or b) when switching between fuels while EU 1 is operational.

Table 8	
EU	**Special Terms and Conditions**
1	5. In accordance with Tr. X274532, the Permittee shall not allow a hot/warm startup operation to exceed 180 minutes (3 hours) except that the hot/warm startup period may be extended for no more than an additional 180 minutes ("extended hot/warm startup") if the additional time is minimized in accordance with prudent operational and maintenance practices. Should the hot/warm startup be extended, the Permittee shall report the extension and the reasons for it in accordance with the reporting requirements in Table 6 of this Permit.
	6. In accordance with Tr. X274532, a "cold startup" is when EU 1 has had 120 minutes or less of flame time in the 24 hours before the initiation of combustion.
	7. In accordance with Tr. X274532, the Permittee shall not allow a cold startup operation to exceed 240 minutes (4 hours) except that the cold startup period may be extended for no more than an additional 240 minutes ("extended cold startup") if the additional time is minimized in accordance with prudent operational and maintenance practices. Should the cold startup be extended, the Permittee shall report the extension and the reasons for it in accordance with the reporting requirements in Table 6 of this Permit.
	8. In accordance with Tr. X274532, a "shutdown" is defined as the time from operator-initiated shutdown or unit protective trip to no flame.
	9. In accordance with Tr. X274532, the Permittee shall not allow a shutdown operation to exceed 120 minutes (2 hours).
	10. In accordance with Tr. X274532, "Protective load shedding" is defined as an event during which a Facility operational parameter is out of specification and the Permittee (either manually or automatically by the control system) reduces EU 1's load without stopping the combustion process to protect the combustion turbine from damage and the reduced load results in actual emissions that exceed a Table 3A emission limit(s).
	11. In accordance with Tr. X274532, the Permittee shall not allow a period of protective load shedding to exceed 240 minutes (4 hours). Should a protective load shedding event occur, the Permittee shall report the event and the reasons for it in accordance with the reporting requirements in Table 6.
	12. In accordance with Tr. X274532, the Permittee shall comply with the startup, shutdown and protective load shedding emission limits in Table 3B when operating on natural gas.
	13. In accordance with Tr. X274532, the Permittee shall fire only No. 1 fuel oil, except the Permittee may fire No. 2 fuel oil if additional compliance testing is to be conducted within 30 days of firing No. 2 fuel oil. The Permittee may continue to fire No. 2 fuel oil if the additional compliance testing demonstrates EU 1 complies with the applicable lb/hr, lb/MMBtu and ppmvd emission limitations in Table 3A.
	14. In accordance with Tr. X274532, the Permittee shall recommend startup, shutdown, and protective load shedding emission limits while firing fuel oil to MassDEP within one year of the beginning of commercial operation while firing fuel oil. The Permittee may request MassDEP to extend the one-year period if the available data are inadequate to determine startup and shutdown emission limits while firing fuel oil.
	15. In accordance with Tr. X274532, periods of extended startup that meet the requirements of Table 8 Items 5and 7 are not considered permit deviations.

Table 8

<table>
<tr><th>EU</th><th>Special Terms and Conditions</th></tr>
<tr><td rowspan="9">1</td><td>16. In accordance with Tr. X274532, the Permittee shall not burn fuel oil from May 1 through September 30, inclusive, of any calendar year, except during initial compliance testing, initial plant demonstration and performance testing, periodic readiness testing, when natural gas is unavailable, or in the event of the unavailability of natural gas at commercially reasonable prices provided it does not exceed the operational/production limit of 720 hours as noted Table 3A.</td></tr>
<tr><td>17. In accordance with Tr. X274532, the Permittee shall operate on natural gas except when natural gas is unavailable or is unavailable at commercially reasonable prices.</td></tr>
<tr><td>18. In accordance with Tr. X274532, the Permittee shall ensure that the NOx SCR and CO catalyst for EU 1 are operational as soon as the flue gas temperature at the inlet to the SCR and CO catalyst is above the minimum flue gas temperature specified by the equipment manufacturers and other system parameters are satisfied for SCR and CO catalyst operation.</td></tr>
<tr><td>19. In accordance with Tr. X274532, the Permittee shall demonstrate continuous compliance with the VOC emission limits in Table 3A by direct mathematical relationship with appropriate CO emissions as determined for the Facility.</td></tr>
<tr><td>20. In accordance with Tr. X274532, the Permittee shall maintain on-site an adequate supply of spare parts for the COM and CEMS to maintain the on-line availability and data capture requirements.</td></tr>
<tr><td>21. In accordance with Tr. X274532, the Permittee may re-use fuel oil that becomes "used fuel oil" during fuel oil firing and associated maintenance operations. Used fuel oil shall only be generated from onsite activities. Oil to be used for burning in the EU 1 shall contain no more than 1% used fuel oil. No more than 10,000 gallons of used fuel oil may be in the oil storage tank at any time. [1]</td></tr>
<tr><td>22. In accordance with 40 CFR 73, Tables 2,3, or 4 (as amended) and the Facility Acid Rain Permit issued June 14, 2005, the Permittee’s yearly allowance allocations are identified below:
<table>
<tr><th>Emission Unit</th><th>Calendars Years 2010 and Beyond (Annual SO2 Allocation)</th></tr>
<tr><td>1</td><td>0</td></tr>
</table></td></tr>
<tr><td>23. In accordance with Tr. X274532, the Permittee shall continue to emit through a single stack having the following parameters:
• Stack No. 1
• Stack Height 225 feet
• Stack Exit Diameter 19 feet
• Stack Material Carbon Steel</td></tr>
<tr><td rowspan="3">Facility-wide</td><td>24. In accordance with Tr. X274532, the Permittee shall not be automatically shielded from enforcement action brought for noncompliance with emission limitations specified in this Permit because of an "emergency" and/or "malfunction.” Emergency and malfunction are defined in the Table 6 Item 21.</td></tr>
<tr><td>25. In accordance with Tr. X274532, in any enforcement proceedings, the Permittee has the burden of proof in establishing the occurrence of an emergency or malfunction.</td></tr>
<tr><td>26. In accordance with Tr. X274532, if an emergency episode requires immediate notification to any government agencies, the Permittee shall make timely notification to the appropriate parties as required by law.</td></tr>
</table>

Table 8	
EU	**Special Terms and Conditions**
Facility-Wide	27. In accordance with Tr. X274532, the Permittee shall not be shielded from enforcement for any emission exceedance that would result in a predicted exceedance of any health-based air quality standards.
	28. In accordance with Tr. X274532, the Permittee shall design, construct, operate and maintain the Facility such that at all times: a) no condition of air pollution will be caused by emissions of sounds as provided in 310 CMR 7.01, and b) no sound emissions resulting in noise will occur as provided in 310 CMR 7.10 and the MassDEP Policy 90-001 and the Energy Facilities Siting Board committed levels, whichever is more restrictive. (State only requirement)
	29. In accordance with Tr. X274532, on receiving information that the Facility may be in non-compliance with the provisions of this Permit regarding sound emission levels, the Permittee shall immediately take the following actions: a) take all reasonable interim steps to eliminate or minimize sound emissions and to return to compliance, b) investigate immediately the cause of sound emissions and develop a plan to mitigate sound emission levels if deemed in non-compliance, c) notify the MassDEP Central Regional Office, Bureau of Air and Waste immediately on receipt of information that the Facility may be in non-compliance and propose a plan and schedule to mitigate the source of sound emissions, and d) on completion of the proposed mitigation, the Permittee will submit a final report of mitigation to the MassDEP. (State only requirement)
	30. In accordance with Tr. X274532, should noncompliance with this Permit or the MassDEP regulations as a result of sound emissions from the Facility continue despite the steps implemented as a result of Table 8 Item 29 above, the Permittee shall, unless otherwise ordered by the MassDEP, submit within 30 days of receipt of information of noncompliance from the MassDEP or other credible source, whichever is earlier, a sound reduction plan for MassDEP written approval. The sound reduction plan shall include the additional monitoring and remedial actions the Permittee proposes to implement in order to return to compliance and verify the return to compliance, and a schedule for the commencement and completion of each major component of the sound reduction plan. Except as otherwise ordered by the MassDEP, the schedule for completion of the sound reduction plan shall not exceed thirty (30) days from the MassDEP's approval of the sound reduction plan, or applicable part(s) thereof, unless the Permittee adequately demonstrates that the work cannot be completed within thirty days by using its best efforts. In reviewing a best efforts demonstration, the MassDEP will not consider delays that could have been reasonably avoided had the Facility been

Table 8	
EU	**Special Terms and Conditions**
Facility-Wide	designed and constructed in a manner to facilitate the timely completion of the proposed remedial actions, including, for example, installation of additional sound reduction equipment, sound containment structures or other sound barriers. If the remedial actions are not completed in accordance with the sound reduction plan approved by the MassDEP and there is continuing noncompliance with the sound emission levels established in this Permit or in regulation, then the Permittee shall, unless otherwise ordered by the MassDEP, modify the operations of the Facility in order to return to compliance. Such actions shall include, as necessary, reduction of the Facility's operating capacity, restriction of its hours of operations, or suspension of operations. The modifications shall commence on the first day beyond the established sound reduction plan completion date and continue until the operator certifies in writing to the MassDEP that all the remedial actions are completed. Nothing in this Permit shall be interpreted to restrict, limit or in any way impair the MassDEP's authority to institute such administrative or judicial enforcement actions as it deems necessary in response to noncompliance with the terms and provisions of this Permit or the MassDEP's regulations. (State only requirement)
	31. In accordance with Tr. X274532, the Permittee shall seek an amendment to the Tr. X274532 Plan Approval for any modifications to the Facility's property line by sale, agreement or other transaction as it may influence noise levels. The MassDEP reserves the right to require additional noise mitigation measures or such actions as it deems necessary to ensure compliance with the MassDEP's Air Pollution Control Regulations. (State only requirement)
	32. In accordance with Tr. X274532, the Permittee shall properly train all personnel to operate the Facility and pollution control devices in accordance with vendor specifications. All persons responsible for the operation of the ammonia handling and SCR control systems shall sign a statement affirming that they have read and understand the approved standard operating and standard maintenance procedures. The Permittee shall conduct refresher training at least once annually.
	33. In accordance with Tr. X274532, the Permittee shall maintain, in the Facility control room, portable ammonia detectors for use during a spill or atmospheric release. The Permittee shall calibrate the portable ammonia monitors at least once per year or at the frequency recommended by the ammonia detector manufacturer.
	34. In accordance with Tr. X274532, the Permittee shall maintain high and low ammonia tank level indicators. The ammonia tank level indicators shall be equipped with an audible alarm that sounds in the control room and near the ammonia tank. The high and low-level ammonia tank level indicators set points shall be set to warn operators at 90% full at the high level and within 10% of empty.
	35. In accordance with Tr. X274532, the Permittee shall periodically maintain, test, and calibrate the ammonia tank level alarm system as recommended by the manufacturer.
	36. In accordance with Tr. X274532, the Permittee shall empty, clean and inspect the ammonia tank, using appropriately trained personnel, at the interval recommended by the tank manufacturer.
	37. In accordance with Tr. X274532, the Permittee shall store the standard operating and maintenance procedures for the ammonia handling system in a convenient location (such as the control room and/or the technical library) and make them readily available to all employees.

Table 8	
EU	**Special Terms and Conditions**
Facility-Wide	38. In accordance with Tr. X274532, the Permittee shall pave and maintain Facility site access roadways and onsite traffic areas to prevent dust emissions at all times.

Table 8 Notes:

1. See the letter from Thomas P. Cusson to Millennium Power Partners, LP of August 26, 2005.

Table 8 Key:

CO = Carbon monoxide
CMR = Code of Massachusetts Regulations
EU = Emission Unit
NOx = Nitrogen oxides
ppmvd = parts per million by volume, dry basis
lb/hr = pounds per hour
lb/MMBtu = pounds per million British thermal units
SCR = Selective catalytic reduction
tpy = tons per 12 month rolling period
VOC = Volatile organic compounds
% = percent

6. ALTERNATIVE OPERATING SCENARIOS

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

7. EMISSIONS TRADING

A. INTRA-FACILITY EMISSION TRADING

The Permittee did not 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.

In addition, the Permittee shall comply with any applicable requirements that become effective

during the Permit term.

GENERAL CONDITIONS FOR OPERATING PERMIT

9. FEES

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

10. COMPLIANCE CERTIFICATION

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

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

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

A. Annual Compliance Report and Certification

The Responsible Official shall certify, annually for the calendar year, that the Facility is in compliance with the requirements of this Operating Permit. The report shall be postmarked or delivered by January 30 to the MassDEP and to the Air Compliance Clerk, 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.

B. Semi-Annual Monitoring Summary Report and Certification

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

The compliance certification and report shall describe:

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;

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

[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. 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, by fax or by 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 this Operating Permit or other approvals, where the parameter limit is identified by the Permit or approval as surrogate for an emission limit.

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, this Operating Permit, or other approvals.

E. Failure to perform QA/QC measures as required by this 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 (15) 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.

This 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.

APPEAL CONDITIONS FOR OPERATING PERMIT

This Permit is an action of the MassDEP. If you are aggrieved by this action, you may request an adjudicatory hearing within 21 days of issuance of this Permit. In addition, any person who participates in any public participation process required by the Federal Clean Air Act, 42 U.S.C. §7401, §502(b)(6) or under 310 CMR 7.00: Appendix C(6), with respect to the MassDEP's final action on operating permits governing air emissions, and who has standing to sue with respect to the matter pursuant to federal constitutional law, may initiate an adjudicatory hearing pursuant to Chapter 30A, and may obtain judicial review, pursuant to Chapter 30A, of a final decision therein.

If an adjudicatory hearing is requested, the Facility must continue to comply with all existing federal and state applicable requirements to which the Facility is currently subject, until a final decision is issued in the case or the appeal is withdrawn. During this period, the application shield shall remain in effect, and the Facility shall not be in violation of the Act for operating without a Permit.

Under 310 CMR 1.01(6)(b), the request must state clearly and concisely the facts which are the grounds for the request, and the relief sought. Additionally, the request must state why the Permit is not consistent with applicable laws and regulations.

The hearing request along with a valid check payable to The Commonwealth of Massachusetts in the amount of one hundred dollars ($100.00) and a completed Adjudicatory Hearing Fee Transmittal Form, http://www.mass.gov/eea/docs/dep/service/adr/adjherfm.doc must be mailed to:

The Commonwealth of Massachusetts
Department of Environmental Protection
P.O. Box 4062
Boston, MA 02211

The request will be dismissed if the filing fee is not paid unless the appellant is exempt or granted a waiver as described below.

The filing fee is not required if the appellant is a city or town (or municipal agency) county, or district of the Commonwealth of Massachusetts, or a municipal housing authority.

The MassDEP may waive the adjudicatory hearing filing fee for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file, together with the hearing request as provided above, an affidavit setting forth the facts believed to support the claim of undue financial hardship.