



Department of Environmental Protection

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FINAL AIR QUALITY OPERATING PERMIT

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

ISSUED TO ["the Permittee"]:

The President & Fellows of
Harvard College/Harvard University
46 Blackstone Street
Cambridge, Massachusetts 02139

INFORMATION RELIED UPON:

Application No. MBR-95-OPP-097R
Transmittal No. W050484

FACILITY LOCATION:

Harvard University
46 Blackstone Street
Cambridge, Massachusetts 02139

FACILITY IDENTIFYING NUMBERS:

AQ ID No: 1191604, 1190092
FMF FAC Nos: 265931, 382542
FMF RO Nos: 265932, 382543

NATURE OF BUSINESS:

Educational Institution

STANDARD INDUSTRIAL CLASSIFICATION

College 8221

RESPONSIBLE OFFICIAL:

Name: Maureen Kotlas
Title: Director, EHS
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FACILITY CONTACT PERSON:

Name: Gordon Reynolds
Title: Assistant Director, EHS
Phone: 617.496.1359

This Operating Permit shall expire on _____

For the Department of Environmental Protection, Bureau of Waste Prevention

James E. Belsky
Permit Chief

Date

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SPECIAL CONDITIONS FOR OPERATING PERMIT

1. PERMITTED ACTIVITIES

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

DESCRIPTION OF FACILITY AND OPERATIONS

Harvard University is an educational institution with a main campus located in the vicinity of Oxford Street in Cambridge, Massachusetts. The Harvard University campus houses the following emission units: three emergency diesel generators, a cooling tower system, and a photolithography laboratory, and numerous other air emission sources considered exempt. Harvard University also operates the Blackstone Station Power Plant (BSPP) at 46 Blackstone Street in Cambridge, Massachusetts. The BSPP consists of four boilers and an emergency diesel generator. The Blackstone facility generates steam and electricity for heating and process use distributed throughout the Harvard campus.

Harvard University's facility-wide hazardous air pollutants (HAP) are below the major thresholds for any individual HAP of 10 tons per year and any combination of HAPs of 25 tons per year.

None of the facility emission units are subject to Compliance Assurance Monitoring (CAM), since none of the units are equipped with add-on air pollution controls and are not major for pre-control emissions.

Facility requirements for the applicable emission units are listed in the following tables:

Table 1 identifies each emission unit. Table 2 refers to the exempt activities. Table 3 states the emission limit and restrictions. Table 4 states the monitoring and testing requirements. Table 5 states the record keeping requirements. Table 6 states the reporting requirements. Table 7 lists the requirements not applicable. Table 8 states the special terms and conditions.

2. EMISSION UNIT IDENTIFICATION

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

Table 1 Emission Units			
EU#	DESCRIPTION OF EMISSION UNIT	EU DESIGN CAPACITY	POLLUTION CONTROL DEVICE (PCD)
EU-6	Boiler (Blackstone Station)	194 MMBtu/hr	None
EU-11	Boiler (Blackstone Station)	286 MMBtu/hr	
EU-12	Boiler (Blackstone Station)	286 MMBtu/hr	
EU-13	Boiler (Blackstone Station)	210 MMBtu/hr	
Small Boilers			
BLR1-Gutman	HB Smith Gas Boiler	7 MMBtu/hr	
BLR2-Gutman	HB Smith Gas Boiler	7 MMBtu/hr	

Table 1 Emission Units			
EU#	DESCRIPTION OF EMISSION UNIT	EU DESIGN CAPACITY	POLLUTION CONTROL DEVICE (PCD)
BLR1-LoebDrama	HB Smith Oil and Gas Boiler	4.18 MMBtu/hr	
BLR2-LoebDrama	HB Smith Oil and Gas Boiler	4.18 MMBtu/hr	
BLR1-Longfellow	Weil McLain Gas and Oil Boiler	6.14 MMBtu/hr	
BLR2-Longfellow	Weil McLain Gas and Oil Boiler	6.14 MMBtu/hr	
BLR1-Cronkite	Kewanee Gas Boiler	5 MMBtu/hr	
BLR2-Cronkite	Kewanee Gas Boiler	5 MMBtu/hr	
BLR-2 Mount Auburn	Teledyne Laars Gas Boiler	3 MMBtu/hr	
BLR1-400 SoldiersField	Wilkinson Gas Boiler	3 MMBtu/hr	
BLR2-400 SoldiersField	Wilkinson Gas Boiler	3 MMBtu/hr	
BLR3-400 SoldiersField	Unilux Gas Boiler	4.18 MMBtu/hr	
BLR4-400 SoldiersField	Unilux Gas Boiler	4.18 MMBtu/hr	
BLR1-Holyoke	Weil McLain Gas Boiler	3.1 MMBtu/hr	
BLR2-Holyoke	Weil McLain Gas Boiler	3.1 MMBtu/hr	
Emergency Diesel Generators			
EDG-60Oxford	Kohler Emergency Diesel Engine, Model 2000ROZD4 (60 Oxford Street)	19.4 MMBtu/hr	
EDG-Blackstone	Cummins DKOC2000 (Blackstone Station)	20.2 MMBtu/hr	
EDG-NWL	Caterpillar 3516B (52 Oxford Street – NW Labs Bldg.)	20.6 MMBtu/hr	
EDG-BRI	Caterpillar Emergency Diesel Engine, Model 3516B (16 Divinity Avenue – BRI Bldg.)	20.6 MMBtu/hr	
EDG-LISE	Caterpillar Emergency Diesel Generator	9.0 MMBtu/hr	
EDG-Western	Caterpillar Emergency Diesel Generator	8.3 MMBtu/hr	
EDG- HBS	Caterpillar Emergency Diesel Generator	8.0 MMBtu/hr	
EDG-Holyoke	Caterpillar Emergency Diesel Generator	7.2 MMBtu/hr	
EDG-Malkin	Caterpillar Emergency Diesel Generator	6.0 MMBtu/hr	
EDG-CGIS	Caterpillar Emergency Diesel Generator	6.0 MMBtu/hr	

Table 1 Emission Units			
EU#	DESCRIPTION OF EMISSION UNIT	EU DESIGN CAPACITY	POLLUTION CONTROL DEVICE (PCD)
EDG-Bauer	Kohler Emergency Diesel Generator	6.0 MMBtu/hr	
EDG-Sherman	Caterpillar Emergency Diesel Generator	5.1 MMBtu/hr	
EDG-Leverett	Caterpillar Emergency Diesel Generator	4.2 MMBtu/hr	
EDG-Mather	Caterpillar Emergency Diesel Generator	4.2 MMBtu/hr	
EDG-Science	Caterpillar Emergency Diesel Generator	4.2 MMBtu/hr	
EDG-Taubman	Kohler Emergency Diesel Generator	4.1 MMBtu/hr	
EDG-Widner	Caterpillar Emergency Diesel Generator	4.2 MMBtu/hr	
EDG-William	Cummins Emergency Diesel Generator	3.6 MMBtu/hr	
EDG-Quincy	Caterpillar Emergency Diesel Generator	3.6 MMBtu/hr	
EDG-Peabody	Kohler Emergency Diesel Generator	3.6 MMBtu/hr	
EDG-Shad	Caterpillar Emergency Diesel Generator	3.7 MMBtu/hr	
EDG-400Soldier	Cummins Emergency Diesel Generator	3.5 MMBtu/hr	
Miscellaneous			
CT-357	CM Towers Cooling Tower (One Oxford Street)	25,000 gallons per minute circulating water flow	Drift Eliminators (PCD-CT-357)
LISE	Photolithography, Solvent and inorganic chemical baths, and specialty gases (9-15 Oxford Street)	N/A	None

Legend to Abbreviated Terms within Table 1:

EU# = Emission Unit Number

MMBtu/hr = Million British thermal units per hour

NA = not applicable

3. IDENTIFICATION OF EXEMPT ACTIVITIES

The following have been found to be exempt activities as provided in 310 CMR 7.00: Appendix C(5)(h):

Table 2 – Exempt Activities	
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. Emissions from these activities shall be reported on the annual emissions statement pursuant to 310 CMR 7.12.	310 CMR 7.00:Appendix C(5)(h)

4. APPLICABLE REQUIREMENTS

A. EMISSION LIMITS AND RESTRICTIONS

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

Table 3 – Emission Limits					
EU#	FUEL	POLLUTANT	RESTRICTIONS	EMISSION LIMIT/STANDARD ¹	APPLICABLE REGULATION AND/OR APPROVAL NO.
EU6	No.6 fuel oil ≤0.5%S by wt. (primary)	PM	The maximum sulfur content is less than or equal to 0.5% by wt. for the fuel oil.	≤0.12 lb/MMBtu	310 CMR 7.02(8) 310 CMR 7.00 Appendix C(9)(b)2
		Natural gas (secondary)		NOx	0.30 lb/MMBtu
		CO		≤200 ppmvd @ 3%O ₂	310 CMR 7.19(4)(f) MBR-94-COM-020 310 CMR 7.00 Appendix C(9)(b)2
		SO ₂		Sulfur content ≤ 0.5%S by wt.	NA
EU11,EU12	No.6 fuel oil ≤0.5%S by wt. (primary)	PM	The maximum sulfur content is less than or equal to 0.5% by wt. for the fuel oil.	≤0.12 lb/MMBtu	310 CMR 7.02(8)
		Natural gas (secondary)		NOx	≤0.28 lb/MMBtu
				See Table 8: Special Terms and Conditions	310 CMR 7.28
		CO		≤200 ppmvd@3%O ₂ (0.15 lb/mmBtu on natural gas, 0.16 lb/mmBtu on oil)	310 CMR 7.19(4)(f) MBR-94-COM-020
		SO ₂		Sulfur content ≤ 0.5%S by wt.	NA

Table 3 – Emission Limits					
EU#	FUEL	POLLUTANT	RESTRICTIONS	EMISSION LIMIT/STANDARD ¹	APPLICABLE REGULATION AND/OR APPROVAL NO.
EU6, EU11,EU12	No.6 fuel oil ≤0.5%S by wt. (primary) Natural gas (secondary)	Opacity	NA	≤15% opacity based on a six minute block average except as provided in 310 CMR7.06(1)(c)1.b., 310 CMR7.06(1)(c)1.c., and 310 CMR7.06(1)(c)1.g.	310 CMR 7.06(1)(c)1.a.
				≤ 27% during start-up, shutdown, soot blowing, burner change out, load changes, and fuel switching events all based on a six-minute block average;	310 CMR 7.06(1)(c)1.b.
				except for up to two six-minute block averages during each calendar quarter per boiler	
				≤ 27% during start-up, shutdown, soot blowing, burner change out, load changes, and fuel switching events all based on a six-minute block average;	310 CMR 7.06(1)(c)1.c.
except for one-tenth of one percent (0.1%) of the total six-minute block averages during any calendar quarter, or six block averages per boiler per quarter, whichever is greater, provided visible emissions do not exceed 60% during any six-minute block average.					

Table 3 – Emission Limits

EU#	FUEL	POLLUTANT	RESTRICTIONS	EMISSION LIMIT/STANDARD ¹	APPLICABLE REGULATION AND/OR APPROVAL NO.
				At no time can visible emissions exceed 27% opacity for more than two six-minute block averages during a one-hour period and the one-hour block average opacity shall not exceed 27% opacity during the one-hour block period when a six-minute block average exceeds 27% opacity.	310 CMR 7.06(1)(c)1.c.
				≤ 27% during shakedown activities, testing, and calibrations for the purpose of improving boiler performance.	310 CMR 7.06(1)(c)1.g.
				When notified in writing at least five business days prior to scheduled events, MassDEP may allow exemptions to 310 CMR 7.06(1)(c)1.a.; 310 CMR 7.06(1)(c)1.b.; and 310 CMR 7.06(1)(c)1.c.	
EU13	Natural gas (primary)	PM	NA	0.0084 lb/MMBtu	MBR-04-COM-12 NSPS 40 CFR 60, Subpart Db
		NOx		9.0 ppmvd	
		CO		20 ppmvd	
		NMHC		0.01 lb/MMBtu	
		SO2		0.0025 lb/MMBtu	
		Opacity		10 percent (averaged over six minute block periods)	
	Ultra Low Sulfur Diesel (ULSD)	PM	1,631,825 gallons of ULSD per rolling 12-month period ULSD with a maximum	0.0225 lb/MMBtu	
		NOx		0.11 lb/MMBtu	
		CO		0.016 lb/MMBtu	

Table 3 – Emission Limits					
EU#	FUEL	POLLUTANT	RESTRICTIONS	EMISSION LIMIT/STANDARD ¹	APPLICABLE REGULATION AND/OR APPROVAL NO.
		NMHC	sulfur content of 0.003 percent	0.01 lb/MMBtu	
		SO2		0.0030 lb/MMBtu	
		Opacity		10 percent (averaged over six minute block periods)	
EDG-60Oxford	No. 2 fuel oil	NOx	Operate no more than 250 hours per month (34,675 gallons of fuel) and 300 hours per rolling 12-month period (41,610 gallons of fuel)	4.47 gm/bhp-hr	MBR-01-COM-016
		CO		0.74 gm/bhp-hr	
		VOC		0.23 gm/bhp-hr	
		PM		0.11 gm/bhp-hr	
		SO2	No. 2 fuel oil with a maximum sulfur content of 0.003 percent	NA	
EDG-Blackstone	No. 2 fuel oil	NOx	44,310 gallons of ULSD per rolling 12-month period; Operate no more than 300 hours per rolling 12-month period.	5.5 gm/bhp-hr	MBR-04-COM-12
		CO		0.5 gm/bhp-hr	
		VOC		0.82 lb/hr	
		PM	No. 2 fuel oil with a maximum sulfur content of 0.003 percent	0.65 lb/hr	
		SO2	NA		
EDG-NWL	No. 2 fuel oil	NOx	Operate no more than 250 hours per month (36,900 gallons of fuel) and 300 hours per rolling 12-month period (44,280 gallons of fuel); No. 2 fuel oil with a maximum sulfur content of 0.003 percent	5.47 gm/bhp-hr	MBR-05-COM-014B
		CO		0.36 gm/bhp-hr	
		VOC		0.13 gm/bhp-hr	
		PM		0.10 gm/bhp-hr	
		SO2	NA		
EDG-BRI	No. 2 fuel oil	NOx	Operate no more than 250 hours per month (36,900 gallons of fuel) and 300 hours per rolling 12-month period (44,280 gallons of fuel); No. 2 fuel oil with a maximum sulfur content of 0.003 percent	5.47 gm/bhp-hr	MBR-04-COM-009
		CO		0.36 gm/bhp-hr	
		VOC		0.13 gm/bhp-hr	
		PM		0.10 gm/bhp-hr	
		SO2	NA		

Table 3 – Emission Limits					
EU#	FUEL	POLLUTANT	RESTRICTIONS	EMISSION LIMIT/STANDARD¹	APPLICABLE REGULATION AND/OR APPROVAL NO.
CT-357	NA	PM	NA	≤1.0 tons/month ≤4.8 tons per rolling 12 month period	MBR-98-IND-013 310 CMR 7.00 Appendix C(9)(b)2.
LISE Photolithography and baths	NA	VOC	NA	5.4 lb/hr 7.5 tons per rolling 12 month period	MBR-04-IND-024
LISE - Wet chemical baths	NA	Acetone	NA	4.2 lb/hr 6.0 tons per rolling 12 month period	
LISE - Wet chemical baths	NA	Inorganic acid	NA	0.5 lb/hr 1.0 tons per rolling 12 month period	
LISE - Specialty gases	NA	Specialty gases	NA	2.3 lb/hr 0.9 tons per rolling 12 month period	
EDG-Science EDG-Sherman EDG-William EDG-Quincy EDG-400Soldier	No. 2 Fuel Oil	Sulfur in Fuel Oil	Usage of each unit is restricted to no more than 300 hours of operation per any rolling twelve month period including normal maintenance and testing procedures and periods when the primary source for a facility has been lost during an emergency.	≤ 0.0015% Sulfur by weight fuel for all fuel deliveries on or after July 1, 2007	

Table 3 – Emission Limits					
EU#	FUEL	POLLUTANT	RESTRICTIONS	EMISSION LIMIT/STANDARD ¹	APPLICABLE REGULATION AND/OR APPROVAL NO.
EDG-Western EDG-HBS EDG-Holyoke EDG-CGIS EDG-Bauer EDG-Leverett EDG-Mather EDG-Taubman EDG-Widner EDG-Peabody EDG-Shad			Emergency means an electric power outage due to failure of the grid, in whole or in part, on-site disaster, local equipment failure, flood, fire, or natural disaster. Emergency shall also mean when the imminent threat of a power outage is likely due to failure of the electrical supply or when capacity deficiencies result in a deviation of voltage from the electrical supplier to the premises of 3% above or 5% below standard voltage, or periods during which the regional transmission organization directs the implementation of voltage reductions, voluntary load curtailments by customers, or automatic or manual load shedding within MA in response to unusually low frequency, equipment overload, capacity or energy deficiency, unacceptable voltage levels, or other such emergency conditions.		310 CMR 7.03(10)(b)
EDG-LISE EDG-Malkin					310 CMR 7.26(42)(c)
Facility-wide		Smoke	Excludes EU6, EU11, EU12, and EU13	< No.1 Chart, except No.1 to No.2 for <6 minutes during any one hour	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)
	No. 6 fuel oil		S in Fuel	≤0.28 lb/MMBtu	310 CMR 7.05(1)(a)

Table 3 Key:

EU# is Emission Unit Number

% is percent

≤ is less than or equal to

gm/bhp-hr is grams per brake horsepower-hour, applicable only to engine loads of 75% or greater

lb/MMBtu is pound per million British thermal units

ppmvd is parts per million by volume, dry corrected to 3 percent oxygen

lb/hr is pounds per hour

O2 is oxygen, NOx is nitrogen oxides, CO is carbon monoxide, PM is particulate matter, VOC is volatile organic compounds

NA is not applicable

ULSD is Ultra Low Sulfur Distillate Fuel, with a maximum sulfur content of 0.003 weight 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), as well as the applicable requirements contained in Table 3:

Table 4 – Monitoring	
EMISSION UNIT	MONITORING/TESTING REQUIREMENTS
EU6,EU11,EU12	In accordance with 310 CMR 7.14(2), compliance with opacity shall be demonstrated utilizing Continuous Opacity Monitoring Systems (COMS). The opacity COMS shall meet Performance Specification 1 of 40 CFR Part 60, Appendix B.
	Harvard University personnel shall follow its quality assurance and control (QA/QC) manual that is approved by the MassDEP for the COMS. Specifically, the QA/QC manual shall include, at a minimum, daily operational checks, routine periodic maintenance, and quarterly performance audits as specified in the Final Approval for Plan of Good Operating Practices – Regulation 310 CMR 7.06(1)(c).
	In accordance with 310 CMR 7.06(1)(c) and the Plan of Good Operating Practices, the COMS is used to determine compliance status with visible emission limits and to initiate corrective actions if the opacity level is in excess of the expected level, as defined in the Plan of Good Operating Practices, for: normal operation, start-up, shutdown, soot blowing, burner change out, load changes, fuel switching or testing/optimization.
	In the event a COMS is out-of-service for more than two business days while a boiler is operating and firing oil, then a Method 9 Test shall be conducted at least once per day during normal operations and once per day during any scheduled soot blowing, start-up, and/or shutdown events until the day that the COMS is placed back in service as referenced in Final Approval of 310 CMR 7.06(1)(c) Plan of Good Operating Practices.
	In accordance with 310 CMR 7.06(1)(c), and the Plan of Good Operating Practices, the opacity levels during normal operation, start-up, shutdown, soot blowing, burner change out, load changes, fuel switching or testing/optimization, as applicable, shall be determined based upon a six-minute block average determined by visible emission monitors per 310 CMR 7.06(1)(c)1.d.iii. The COMS shall serve as direct compliance monitors.
EU6	Conduct an annual stack test prior to October 1 of each year as required in 310 CMR 7.19(13)c and referenced in Final Approval MBR-94-COM-020.
	Monitor the parameters of the boiler as detailed in the Standard Operating and Maintenance Procedures (SOMP) and as the basis for periodic monitoring required in 310 CMR 7.00 Appendix C(9)(b)2.
EU11, EU12	In accordance with 310 CMR 7.14(2) and 310 CMR 7.19(13)(a)1., compliance with NO _x emission limits/standards shall be demonstrated with Continuous Emissions Monitoring Systems (CEMS). The NO _x CEMS shall meet the requirements specified in 310 CMR 7.19(13)(b). The NO _x CEMS shall comply with 40 CFR Part 60, Appendix B (Performance Specifications), and 40 CFR Part 60 Appendix F (Quality Control Procedures), or alternatively as allowed under 310 CMR 7.19(13)(b).

Table 4 – Monitoring

EMISSION UNIT	MONITORING/TESTING REQUIREMENTS
	<p>In accordance with 310 CMR 7.19(13)(a)1., compliance with CO emission limits/standards shall be demonstrated with CEMS as specified in 310 CMR 7.19(13)(b). CO emissions shall be monitored as specified in 310 CMR 7.19(13)(b)1. through 7.19(13)(b)12. Monitor CO emissions with CEMS certified in accordance with the performance specifications contained in 40 CFR Part 60, Appendix B and use the procedures contained in 40 CFR Part 60, Appendix F to comply, provide quality assurance and quality control.</p> <p>In accordance with 310 CMR 7.19(13)(b)10., the facility must obtain valid data for at least 75% of the hours per day, 75% of the days per month, and 90% of the hours per quarter during which the emission unit is operating.</p> <p>In accordance with 310 CMR 7.19(13)(b)9., the Permittee shall calculate a calendar day average from a block hourly average for each hour the emissions unit is operating. Block hourly averages shall be calculated from at least 3 data points, generated by a CEMS at 15 minute intervals over each one-hour period.</p> <p>In accordance with 310 CMR 7.19(13)(d)5. and 310 CMR 7.19(13)(d)6, monitor nitrogen content of each new shipment of No. 6 fuel oil received, by one of the following methods:</p> <p>(1) Monitor fuel through obtaining a certification from the fuel oil supplier that includes the following information:</p> <ul style="list-style-type: none"> a. the name of the fuel supplier; b. the nitrogen content* of each oil shipment; and c. the location where the sample was drawn for analysis to determine the nitrogen content of the fuel oil, specifically including whether the fuel oil was sampled as delivered to the Permittee’s facility or whether the sample was drawn from fuel oil in storage at the fuel oil supplier’s or fuel oil refiner’s facility or another location. <p>(2) Sample and analyze the fuel oil for nitrogen content* immediately after the fuel oil tank is filled and before any fuel oil is combusted.</p> <p>* The shipment certification or analysis of nitrogen content of the fuel oil shall be in accordance with the applicable American Society for Testing materials (ASTM) test methods or any other method approved by the MassDEP and EPA.</p>
EU13	<p>Use and maintain its continuous emission monitoring system (CEMS) as “direct compliance” monitors to determine the Blackstone facility’s NOx and CO emission rate in pounds per calendar day. As such, the Permittee is required to comply with the Quality Assurance requirements contained in 40 CFR Part 60, Appendix B, Specification 6 and Appendix F. The CEMS shall be maintained per NOx RACT as referenced in 310 CMR 7.19(13), 7.19(14), Appendix B(4), and Final Approval MBR-94-COM-020.</p> <p>Permittee shall calibrate, test and operate its Data Acquisition and Handling System(s) (DAHS) and Continuous Emissions Monitoring System (CEMS) and Continuous Opacity Monitoring System (COMS) in accordance with the Federal Regulations under 40 CFR Part 60, Appendices B and F. These systems are used to measure and record the following emissions for Boiler No. 13: a) Oxygen (O₂), b) Oxides of Nitrogen (NO_x), c) Carbon Monoxide (CO), and d) Opacity. These requirements are stated in the MassDEP Final Approval, dated September 30, 2009, Appl.No. MBR-04-COM-012.</p> <p>Permittee shall ensure that all emission monitors and recording equipment servicing Boiler No. 13 comply with MassDEP approved performance and location specifications, and conform with the EPA monitoring specifications at 40 CFR Part 60.13 and 40 CFR Part 60 Appendices B and F. These requirements are stated in the MassDEP Final Approval, dated September 30, 2009, Appl.No. MBR-04-COM-012 and the CEMS’ SOMP.</p>

Table 4 – Monitoring	
EMISSION UNIT	MONITORING/TESTING REQUIREMENTS
	Permittee shall maintain the CEMS and COMS with audible and visible alarms to activate whenever emissions from this boiler exceed the limits established in Table 3 of this Permit.
	Permittee shall operate each CEMS and COMS servicing this boiler at all times except for periods of CEMS and COMS calibration checks, zero and span adjustments, preventative maintenance, and periods of unavoidable malfunction. These requirements are stated in the MassDEP Final Approval, dated September 30, 2009, Appl.No. MBR-04-COM-012.
	The Permittee shall obtain and record emission data from each CEMS and COMS servicing this boiler for at least 75% of the emission unit's operating hours per day, for at least 75% of the emission unit's operating hours per month, and for at least 95% of the emission unit's operating hours per quarter, except for periods of CEMS and COMS calibration checks, zero and span adjustments, and preventative maintenance. These requirements are stated in the MassDEP Final Approval, dated September 30, 2009, Appl.No. MBR-04-COM-012.
	All periods of excess emissions, even if attributable to an emergency/malfunction, start up/shutdown or equipment cleaning, shall be quantified and included by the Permittee in the determination of annual emissions and compliance with the emission limits as stated in Table 3 of this Permit. (“ Excess Emissions ” are defined as emissions, which are in excess of the short-term emissions as stipulated in Table IV.) An exceedance of emission limits in Table 3 due to an emergency or malfunction shall not be deemed a federally permitted release as that term is used in 42 U.S.C. Section 9601(10). . These requirements are stated in the MassDEP Final Approval, dated September 30, 2009, Appl.No. MBR-04-COM-012.
	The Permittee shall use and maintain its CEMS and COMS servicing Boiler No. 13 as "direct-compliance" monitors to measure NO _x , CO, O ₂ and Opacity. "Direct-compliance" monitors generate data that legally documents the compliance status of a source. These requirements are stated in the MassDEP Final Approval, dated September 30, 2009, Appl.No. MBR-04-COM-012 and 40 CFR Part 60, Subpart Db.
	The Permittee shall operate continuous monitors and alarm systems to monitor the temperature at the inlet and outlet to the CO oxidation catalyst servicing Boiler No. 13. These requirements are stated in the MassDEP Final Approval, dated September 30, 2009, Appl.No. MBR-04-COM-012.
	A quality assurance/quality control (QA/QC) program shall be maintained for the long-term operation of the CEMS and COMS servicing this boiler which conforms to 40 CFR Part 60, Appendix F. The QA/QC program must be submitted in writing, and reviewed and approved in writing by the MassDEP at least 30 days prior to commencement of facility operation. The QA/QC program shall be incorporated as part of the CEMS' SOMP. Any subsequent changes to the program shall be approved by the MassDEP. These requirements are stated in the MassDEP Final Approval, dated September 30, 2009, Appl.No. MBR-04-COM-012.
EDG-60Oxford	Monitor monthly records to demonstrate that EU does not exceed the restrictions specified in Table 3. At a minimum, the information shall include the amount of fuel used in gallons and hours of operation during the month, as well as the prior 11 months. Also, Permittee shall monitor monthly records of maintenance activities as required by Final Approval MBR-01-COM-016.
	Monitor operations on a monthly basis as detailed in the SOMP and as the basis for periodic monitoring required in 310 CMR 7.00 Appendix C(9)(b)2.
EDG-Blackstone	Monitor monthly records to demonstrate that EU does not exceed the restrictions specified in Table 3. At a minimum, the information shall include the amount of fuel used in gallons and hours of operation during the month, as well as the prior 11 months. Also, Permittee shall monitor monthly records of maintenance activities as required by Final Approval MBR-04-COM-012.
	Monitor operations on a monthly basis as detailed in the SOMP and as the basis for periodic monitoring required in 310 CMR 7.00 Appendix C(9)(b)2.

Table 4 – Monitoring	
EMISSION UNIT	MONITORING/TESTING REQUIREMENTS
EDG-NWL	Monitor monthly records to demonstrate that EU does not exceed the restrictions specified in Table 3. At a minimum, the information shall include the amount of fuel used in gallons and hours of operation during the month, as well as the prior 11 months. Also, Permittee shall monitor monthly records of maintenance activities as required by Final Approval MBR-05-COM-014B.
	Monitor operations on a monthly basis as detailed in the SOMP and as the basis for periodic monitoring required in 310 CMR 7.00 Appendix C(9)(b)2.
EDG-BRI	Monitor monthly records to demonstrate that EU does not exceed the restrictions specified in Table 3. At a minimum, the information shall include the amount of fuel used and hours of operation during the month, as well as the prior 11 months. Also, Permittee shall monitor monthly records of maintenance activities as required by Final Approval MBR-04-COM-009.
	Monitor operations on a monthly basis as detailed in the SOMP and as the basis for periodic monitoring required in 310 CMR 7.00 Appendix C(9)(b)2.
CT-357	Monitor operations as required by Final Approval MBR-98-IND-013.
	Monitor operations on a monthly basis as detailed in the SOMP and as the basis for periodic monitoring required in 310 CMR 7.00 Appendix C(9)(b)2.
Facility-wide	Inspect and maintain each fuel utilization facility, having an energy input capacity of ≥ 3 MMBtu /hr in accordance with manufacturer's recommendations and test for efficient operation at least once in each calendar year as provided in 310 CMR 7.04(4)(a) incorporated herein by reference.
	That any compliance tests required at this facility shall be conducted in accordance with the procedures set forth by the appropriate EPA Reference Test Methods and Massachusetts Air Pollution Control Regulation 310 CMR 7.13. A written test protocol must be submitted to the MassDEP for approval at least 30 days prior to an actual test. A test results report shall be submitted to the MassDEP within 60 days after the completion of any required compliance testing.

Table 5 – Record keeping	
EMISSION UNIT	RECORD KEEPING REQUIREMENTS
EU6, EU11, EU12	Maintain records for compliance testing (stack testing) in accordance with 310 CMR 7.13, 310 CMR 7.19(13)(c) and 40 CFR Part 60 Appendix A (Method 7E for NO _x , Methods 1 to 5 for PM, Method 3A for Oxygen (O ₂) or any other testing if and when requested by the MassDEP or EPA.
	Maintain operating records for each unit: including fuel type and amount of fuel consumed, actual emission rate for units that are equipped with CEMS, and the allowable emission rate as required by CMR 7.19(13)(d)3.
	Maintain records of the COMS as required by 310 CMR 7.04(2).
	In accordance with 310 CMR 7.06(1)(c), maintain opacity records of the monitoring information specified in Table 3 for EU6, EU11, and EU12. The calendar date for each record shall be clearly identified on the record. All records shall be maintained for a period of at least five (5) years as required in 310 CMR 7.00: Appendix C(10)(b).
	In accordance with 310 CMR 7.06(1)(c) and the Plan of Good Operating Practices, maintain COMS. All records shall be maintained for a period of at least five (5) years as required in 310 CMR 7.00: Appendix C(10)(b).
	In accordance with 310 CMR 7.06(1)(c) and the Plan of Good Operating Practices, maintain all 40 CFR 60 Appendix A Method 9 records. All records shall be maintained for a period of at least five (5) years as required in 310 CMR 7.00: Appendix C(10)(b).

Table 5 – Record keeping

EMISSION UNIT	RECORD KEEPING REQUIREMENTS
	<p>In accordance with 310 CMR 7.06(1)(c) and the Plan of Good Operating Practices, maintain a copy of the Plan of Good Operating Practices approved by MassDEP.</p> <p>In accordance with 310 CMR 7.06(1)(c), maintain a logbook or other permanent record that identifies the calendar date, start time, and end time for all COMS calibrations.</p> <p>In accordance with 310 CMR 7.06(1)(c), maintain a logbook or other permanent record that identifies the calendar date, start time, and end time for any period of malfunction of the COMS.</p> <p>In accordance with 310 CMR 7.06(1)(c), maintain a logbook or other permanent record that identifies the calendar date, start time, and end time for each start-up, shutdown, burner change out, load change, fuel switching, soot blowing, and testing/optimization.</p> <p>In accordance with 310 CMR 7.06(1)(c), maintain a logbook or other permanent record that identifies the calendar date, start time, end time and a description of all maintenance performed on the COMS.</p> <p>In accordance with 310 CMR 7.06(1)(c), maintain a logbook or other permanent record that identifies the calendar date, start time, end time and a description of the operating conditions for each event when the COMS or Method 9 observations identifies that the opacity exceeded the level for the specific operating condition identified in Table 3 for EU6, EU11, and EU12 of this Modified Final Approval.</p> <p>In accordance with 310 CMR 7.06(1)(c), maintain a copy of the certification of the qualified observer for each 40 CFR 60, Appendix A, Method 9 observation.</p> <p>Maintain records for No. 6 fuel oil as required by 310 CMR 7.19(13)(d)5, which requires documentation of the fuel-bound nitrogen content.</p> <p>In accordance with 310 CMR 7.00: Appendix C(9)(b)2., maintain records for sulfur and ash content of each new shipment of fuel oil received.</p> <p>Maintain records such that information may be compiled for the annual preparation of a Source Registration/Emission Statement Form as requested by 310 CMR 7.12.</p>
EU11, EU12	Must comply with all applicable recordkeeping requirements contained in 40 CFR 60, and 40 CFR 72 and 40 CFR 75.
EDG-60Oxford	<p>Maintain monthly records to demonstrate that EU does not exceed the restrictions specified in Table 3. At a minimum, the information shall include the amount of fuel used and hours operated during the month, as well as the prior 11 months. Also, Permittee shall maintain monthly records of maintenance activities as required by Final Approval MBR-01-COM-016.</p> <p>Maintain records of operations on a monthly basis as detailed in the SOMP and as the basis for periodic monitoring required in 310 CMR 7.00 Appendix C(9)(b)2.</p>
EDG-Blackstone	<p>Maintain monthly records to demonstrate that EU does not exceed the restrictions specified in Table 3. At a minimum, the information shall include the amount of fuel used and hours operated during the month, as well as the prior 11 months. Also, Permittee shall maintain monthly records of maintenance activities as required by Final Approval MBR-04-COM-012.</p> <p>Maintain records of operations on a monthly basis as detailed in the SOMP and as the basis for periodic monitoring required in 310 CMR 7.00 Appendix C(9)(b)2.</p>
EDG-NWL	Maintain monthly records to demonstrate that EU does not exceed the restrictions specified in Table 3. At a minimum, the information shall include the amount of fuel used and hours operated during the month, as well as the prior 11 months. Also, Permittee shall maintain monthly records of maintenance activities as required by Final Approval MBR-05-COM-14B.

Table 5 – Record keeping

EMISSION UNIT	RECORD KEEPING REQUIREMENTS
	Maintain records of operations on a monthly basis as detailed in the SOMP and as the basis for periodic monitoring required in 310 CMR 7.00 Appendix C(9)(b)2.
EDG-BRI	Maintain monthly records to demonstrate that EU does not exceed the restrictions specified in Table 3. At a minimum, the information shall include the amount of fuel used and hours operated during the month, as well as the prior 11 months. Also, Permittee shall maintain monthly records of maintenance activities as required by Final Approval MBR-04-COM-009.
	Maintain records of operations on a monthly basis as detailed in the SOMP and as the basis for periodic monitoring required in 310 CMR 7.00 Appendix C(9)(b)2.
CT-357	Maintain records as required by Final Approval MBR-98-IND-013.
	Maintain records of operations on a monthly basis as detailed in the SOMP and as the basis for periodic monitoring required in 310 7.00 CMR Appendix C(9)(b)2.
LISE	Maintain records of operations on a monthly basis as detailed in the SOMP and as the basis for periodic monitoring required in 310 7.00 CMR Appendix C(9)(b)2.
	In accordance with Approval MBR-04-IND-024, maintain adequate records on-site to demonstrate compliance with emission limitations contained in Table No. 3. At a minimum, the information shall include the actual emissions of VOC, acetone, inorganic acids, bases and specialty gases for the month, as well as prior 11 months.
	In accordance with Approval MBR-04-IND-024, maintain on-site Material Safety Data Sheet (MSDS) for material that are used on permanent basis.
	In accordance with Approval MBR-04-IND-024, maintain Environmental Logbook, or equivalent record keeping system, which shall record actions associated with environmental issues and overall emission changes.
Facility-wide	Keep copies of Emission Statements submitted annually to the MassDEP as required per 310 CMR 7.12(1)(d).
	In accordance with 310 CMR 7.00: Appendix C(10)(b), maintain records of all monitoring data and supporting information required by this Operating Permit on site for five (5) years from the date of the monitoring sample, measurement, report or Operating Permit Renewal.
	Maintain the test results of any Emissions Compliance Testing (Stack Testing) performed in accordance with 310 CMR 7.13, and 40 CFR Part 60, Appendix A or of any other testing required by the MassDEP or EPA.
	In accordance with 310 CMR 7.04(4)(a), maintain results of fuel utilization facility inspection, maintenance, and testing and the date upon which it was performed.
	Maintain records of any EPA Test Method 9 opacity determinations performed according to 40 CFR Part 60, Appendix A, including detached plumes, required by the MassDEP or EPA.
	In accordance with Approval MBR-04-IND-024, maintain Environmental Logbook, or equivalent record keeping system, which shall record actions associated with environmental issues and overall emission changes.

Table 5 – Record keeping

EMISSION UNIT	RECORD KEEPING REQUIREMENTS
	The results of the required inspection, maintenance, and testing and the date upon which it was performed shall be recorded and posted conspicuously on or near each fuel utilization facility having an energy input capacity of ≥ 3 MMBtu/hr, as provided in 310 CMR 7.04(4)(a) incorporated herein by reference. Said records shall be maintained on site for a period of the five most recent years.

Table 6 - Reporting

EMISSION UNIT	REPORTING REQUIREMENTS
EU11, EU12, EU13	Submit to this Regional Office by the 30 th day of April, July, October, and January of each calendar year, a report showing any excess emissions as measured by the CEMS within the previous quarter along with all applicable and appropriate information as referenced in 310 CMR 7.19(13)(d)2 and MassDEP Final Approval, dated September 30, 2009, Appl.No. MBR-04-COM-012.
EU6, EU11, EU12	<p>Submit Emission Compliance Testing (Stack testing) reports in accordance with 310 CMR 7.19(13)(c).</p> <p>In accordance with 310 CMR 7.19(13)(d)9, submit compliance records within ten (10) days of written request by the MassDEP or the US EPA.</p> <p>In accordance with 310 CMR 7.06(1)(c), notify the MassDEP, in writing, of any visible emissions monitoring that indicates the percent opacity to be in excess of that defined in Table 3. The notice shall be given within one business day. Within three business days the Permittee shall submit: a copy of the COMS, an explanation for the elevated opacity, and any proposed revisions to the Plan of Good Operating Practices which will be implemented so as to prevent a recurrence of said exceedance in the future.</p> <p>In accordance with 310 CMR 7.06(1)(c)1.g., when notified in writing at least five business days prior to scheduled events, the MassDEP may allow exemptions to 310 CMR 7.06(1)(c)1.a. and 310 CMR 7.06(1)(c)1.b. Such notification shall include a brief description of the activity, its start time and anticipated end time. The MassDEP may allow a shorter notification period upon request. The MassDEP may deny or limit the frequency of such activities.</p> <p>All required reports must be certified by a responsible official as provided in 310 CMR 7.00 Appendix C(10)(h).</p>
EU11, EU12	<p>Comply with all applicable reporting requirements contained in 40 CFR 60, 40 CFR 72, 40 CFR 75.</p> <p>Notification of QA testing is required for Relative Accuracy Test Audits (RATAs) and AppendixE/LME (Low Mass Emission) unit tests. Notification must be made at least 21 days prior to the scheduled test date to the EPA as required by 40 CFR 75.61, to MassDEP Headquarters, Bureau of Waste Prevention, Division of Planning and Evaluation, and to the DEP Regional office, Attn: BWP Permit Chief. If tests must be rescheduled, 24 hours notice must be given, as specified in 40 CFR 75.61(a)(5).</p> <p>A previously approved RATA protocol may be referenced at the time of test notification provided that the referenced protocol was completed in accordance with current 40 CFR Part 75 procedures, addresses all previous MassDEP protocol comments to the satisfaction of the MassDEP, and none of the information has changed. If a revised protocol must be submitted, it must be submitted at least 21 days prior to the scheduled test date.</p>

Table 6 - Reporting	
EMISSION UNIT	REPORTING REQUIREMENTS
	<p>A hardcopy of the QA RATA or Appendix E/LME test results must be submitted to both the MassDEP Headquarters and MassDEP Regional offices within 45 days of completion of tests. The electronic results must be submitted in the quarterly electronic data report (EDR).</p> <p>Results from QA daily Calibrations, quarterly Linearity checks and Appendix D Fuel Flowmeter tests must be reported electronically in the EDR submittal for the quarter in which the testing occurs.</p>
LISE	<p>In accordance with Approval MBR-04-IND-024, in the event of MassDEP required testing, a written test protocol must be submitted to the MassDEP for approval at least 30 days prior to an actual test. A test result report shall be submitted to MassDEP within 30 days after the completion of any required compliance testing.</p> <p>In accordance with Approval MBR-04-IND-024, accurately report emissions from the facility on Emission Statement forms.</p> <p>In accordance with Approval MBR-04-IND-024, by March 15 of each year submit to the MassDEP previous year's progress toward pollution prevention or improved source reduction techniques.</p>
Facility-wide	<p>Submit a Source Registration/Emission Statement form to the MassDEP on an annual basis as required by 310 CMR 7.12. Accurate emissions shall be reported from the facility on Emission Statement forms.</p> <p>Upon the MassDEP's request, any record relevant to the Operating Permit or to the emissions of any air contaminant from the facility shall be submitted to the MassDEP within 30 days of the request or longer, if approved by the MassDEP, as required by 310 CMR 7.00 Appendix C(10)(a).</p> <p>Submit by January 31 and July 31 for the previous six months respectively, a summary of all monitoring data and related supporting information to the MassDEP as required in 310 CMR 7.00 Appendix C(10)(c).</p> <p>Promptly report to the MassDEP all instances of deviations from permit requirements (including but not limited to testing for efficient operation, emission limitations/standards, Standard Operating and Maintenance Procedures) by telephone or fax, within three days of discovery of such deviation, as provided in 310 CMR 7.00: Appendix C(10)(f) (See General Condition 25).</p> <p>Submit Annual Compliance report to the MassDEP and EPA by January 31 of each year and as required by General Condition 10. All reports must be certified by a responsible official as provided in 310 CMR 7.00: Appendix C(10)(h).</p> <p>In the event of MassDEP required testing, a written test protocol must be submitted to the MassDEP for approval at least 30 days prior to an actual test. A test result report shall be submitted to MassDEP within 30 days after the completion of any required compliance testing as per Regulation 310 CMR 7.13.</p>

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 in Table 7 below:

Table 7 – Requirements Not Currently Applicable	
REGULATION	DESCRIPTION
42 U.S.C. 7401, §112(r)	Prevention of Accidental Releases
310 CMR 7.28	NOx Allowance Program
40 Part 64	Compliance Assurance Monitoring

5. SPECIAL TERMS AND CONDITIONS

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

Table 8.- SPECIAL TERMS AND CONDITIONS	
310 CMR 7.01(1)	The Permittee shall abate any nuisance conditions that are generated by the operation of this facility in a timely manner (state only requirement).
310 CMR 7.04(4)	For all fossil fuel utilization units having an energy input capacity equal to or greater than 3 million Btu per hour , the Permittee shall inspect and maintain units in accordance with the manufacturers recommendations and test for efficient operation at least once in each calendar year.
310 CMR 7.04(5)	EU11 and EU12 shall be equipped with an automatic viscosity controller that shall control the viscosity of the fuel oil to the burners.
310 CMR 7.16	Permittee has indicated that it is subject to, and complying with, the requirements of 310 CMR 7.16, U Reduction of Single Occupant Commuter Vehicle Use. Permittee shall continue to comply with this Regulation.
40 CFR Part 82	Permittee has indicated that it is subject to, and complying with, the requirements of 40 CFR Part 82 Protection of Stratospheric Ozone. Permittee shall continue to comply with this Regulation.
310 CMR 7.19(13)(b)	The minimum real time data recovery for the CEMS serving EU 11, 12, and 13 shall be consistent with the data requirements specified in 310 CMR 7.19(13)(b), which specifies that valid data shall be obtained for at least 75% of the hours of the day, 75% of the days per month, and 90% of the hours per quarter during which the Blackstone facility is operating.
MBR-95-OPR-097	All Emission Units shall continue to emit products of combustion through the following flues with the following parameters: Flue 3: EU6,EU13 Flue Height: 150 feet Flue Exit Diameter: 12 feet Stack Material: Gunite lined steel Flue 4: EU11,EU12 Flue Height: 160 feet Flue Exit Diameter: 10 feet Stack Material: Gunite lined steel Flue 5: EDG-60Oxford Flue Height: 10 feet above building roof

Table 8.- SPECIAL TERMS AND CONDITIONS

	<p>Flue Exit Diameter: 16 inches Stack Material: Steel</p> <p>Flue 6: EDG-Blackstone Flue Height: 20 feet above building roof Flue Exit Diameter 16 inches Stack Material: Steel</p> <p>Flue 6: EDG-NWL Flue Height: 10 feet above building roof Flue Exit Diameter 16 inches Stack Material: Steel</p> <p>Flue 7: EDG-BRI Flue Height: 20 feet above building roof Flue Exit Diameter: 14 inches Stack Material: Steel</p>
<p>310 CMR 7.28(10).</p> <p>310 CMR 7.28(10).</p>	<p>Emission units EU11 and EU12 are subject to the requirements of the NO_x Allowance Program at Regulation 310 CMR 7.28. MassDEP issued an Emission Control Plan (ECP) Phase I & II Combined Final Approval to Permittee governing the subject EU 11 and 12 on May 23, 2002.</p> <p>NO_x Allowance use and transfer must comply with 310 CMR 7.28(10).</p> <p>In accordance with 310 CMR 7.28(14) each year by November 30, for each budget unit, the total number of banked or current year allowances in its compliance or overdraft account must equal or exceed the NO_x emissions from the budget unit in the current control period.</p> <p>Each budget unit shall meter electric and/or steam output in accordance with the approved monitoring methodology contained in the ECP Approval, Transmittal W0024242.</p> <p>In the case where billing meters are used to determine output, no QA/QC activities beyond those already performed are required. To qualify as a billing meter, the measurement device must be used to measure electric or thermal output for commercial billing under a contract. The facility selling the electric or thermal output must have different owners from the owners of the party purchasing the electric or thermal output. Any electric or thermal output values that the facility reports must be the same as the values used in billing for the output.</p> <p>In the case where non-billing meters are used to determine output, if the facility decides to adopt a system approach to accuracy then a system accuracy of 10.0% must be achieved. If testing an output measurement system shows that the output readings are not accurate to 10.0% or less, then the measurement equipment must be retested or replaced, and meet that requirement. If the facility decides to adopt a component approach to accuracy, then a component accuracy of 3.0% must be achieved. If testing a piece of output measurement equipment shows that the output readings are not accurate to 3.0% or less of the full scale, then the measurement equipment must be retested or replaced, and meet that requirement.</p> <p>When a non-billing system fails to meet the 10% or 3% requirement, data should be considered invalid, prospectively, for purposes of determining allocations. Data remain invalid until the output measurement equipment passes an accuracy test or is replaced with another piece of equipment that passes the accuracy test. The invalid data must be omitted and either zero or an output value that is likely to be lower than a measured value must be reported.</p>

Table 8.- SPECIAL TERMS AND CONDITIONS

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

6. ALTERNATIVE OPERATING SCENARIOS

The permittee did not request alternative operating scenarios in its Operating Permit Application.

7. EMISSIONS TRADING

(a) Intra-facility emissions trading

The facility did not request intra-facility emissions trading in its Operating Permit Application.

Pursuant to 310 CMR 7.00: Appendix C(7)(b), emissions trades, provided for in this Permit, may be implemented provided the Permittee notifies The United States Environmental Protection Agency (EPA) and the MassDEP at least fifteen (15) days in advance of the proposed changes and the Permittee provides the information required in 310 CMR 7.00: Appendix C(7)(b)3.

Any intra-facility change that does not qualify pursuant to 310 CMR 7.00: Appendix C(7)(b)2.is required to be submitted to the MassDEP pursuant to 310 CMR 7.00: Appendix B.

(b) Inter-facility emissions trading

The facility did not request inter-facility emissions trading in its Operating Permit Application

All increases in emissions due to emissions trading, must be authorized under the applicable requirements of 310 CMR 7.00: Appendix B (the "Emissions Trading Program") and the 42 U.S.C. §7401 et seq. (the "Act"), and provided for in this Permit. The Permittee is currently authorized to trade NOx allowances in accordance with 310 CMR 7.28.

8. COMPLIANCE SCHEDULE

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

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

GENERAL CONDITIONS FOR OPERATING PERMIT

9. FEES

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

10. COMPLIANCE CERTIFICATION

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

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

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

(a) Annual Compliance Report and Certification

The Responsible Official shall certify, annually for the calendar year, that the facility is in compliance with the requirements of this permit. The report shall be postmarked or delivered by January 30 to the MassDEP and to the Regional Administrator, U.S. Environmental Protection Agency - New England Region. The report shall be submitted in compliance with the submission requirements below.

The compliance certification and report shall describe:

- i. the terms and conditions of the permit that are the basis of the certification;
- ii. the current compliance status and whether compliance was continuous or intermittent during the reporting period;
- iii. the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods; and
- iv. any additional information required by the MassDEP to determine the compliance status of the source.

(b) Semi-Annual Monitoring Summary Report and Certification

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

The compliance certification and report shall describe:

- i. the terms and conditions of the permit that are the basis of the certification;
- ii. the current compliance status during the reporting period;
- iii. the methods used for determining compliance, including a description of the monitoring, record keeping, and reporting requirements and test methods;
- iv. whether there were any deviations during the reporting period;
- v. if there are any outstanding deviations at the time of reporting, and the Corrective Action Plan to remedy said deviation;
- vi. whether deviations in the reporting period were previously reported;
- vii. if there are any outstanding deviations at the time of reporting, the proposed date of return to compliance;
- viii. if the deviations in the reporting period have returned to compliance and date of such return to compliance; and;
- ix. any additional information required by the MassDEP to determine the compliance status of the

source.

11. NONCOMPLIANCE

Any noncompliance with a permit condition constitutes a violation of 310 CMR 7.00: Appendix C and the Clean Air Act and is grounds for enforcement action, for permit termination or revocation; or for denial of an operating permit renewal application by the MassDEP and/or EPA. Noncompliance may also be grounds for assessment of administrative or civil penalties under M.G.L. c.21A, §16 and 310 CMR 5.00 and civil penalties under M.G.L. c.111, §142A and 142B. This permit does not relieve the Permittee from the obligation to comply with any other provisions of 310 CMR 7.00 or the Act, or to obtain any other necessary authorizations from other governmental agencies, or to comply with all other applicable Federal, State, or Local rules and regulations, not addressed in this permit.

12. PERMIT SHIELD

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

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

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

(c) Nothing in this permit shall alter or affect the following:

- (i) the liability of the source for any violation of applicable requirements prior to or at the time of permit issuance.
- (ii) the applicable requirements of the Acid Rain Program, consistent with 42 U.S.C. §7401, §408(a); or
- (iii) the ability of EPA to obtain information under 42 U.S.C. §7401, §114 or §303 of the Act.

13. ENFORCEMENT

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

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

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

14. PERMIT TERM

This permit shall expire on the date specified on the cover page of this permit, which shall not be later than the date five (5) years after the 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 that 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, liability between current and new Permittee has been submitted to the MassDEP.

20. PROPERTY RIGHTS

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

21. INSPECTION AND ENTRY

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

- (a) enter upon the Permittee's premises where an operating permit source activity is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- (d) Sample or monitor at reasonable times, any substances or parameters for the purpose of assuring compliance with the operating permit or applicable requirements as per 310 CMR 7.00 Appendix C.(3)(g)12.

22. PERMIT AVAILABILITY

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

23. SEVERABILITY CLAUSE

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

24. EMERGENCY CONDITIONS

The permittee shall be shielded from enforcement action brought for noncompliance with technology based¹ emission limitations specified in this permit as a result of an emergency². 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;

¹ 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.

² 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.

(b) the permitted facility was at the time being properly operated;

(c) during the period of the emergency, the permittee took all reasonable steps as expeditiously as possible, to minimize levels of emissions that exceeded the emissions standards, or other requirements in this permit; and

(d) the permittee submitted notice of the emergency to the MassDEP within two (2) business days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emission, and corrective actions taken.

If an emergency episode requires immediate notification to the **Bureau of Waste Site Cleanup/Emergency Response**, immediate notification to the appropriate parties should be made as required by law.

25. PERMIT DEVIATION

Deviations are instances where any permit condition is violated and not reported as an emergency pursuant to section 24 of this permit. Reporting a permit deviation is not an affirmative defense for action brought for noncompliance. Any reporting requirements listed in Table 6 of this Operating Permit shall supercede the following deviation reporting requirements, if applicable.

The Permittee shall report to the MassDEP's Regional Bureau of Waste Prevention the following deviations from permit requirements, by telephone or fax, within three (3) days of discovery of such deviation:

- Unpermitted pollutant releases, excess emissions or opacity exceedances measured directly by CEMS/COMS, by EPA reference methods or by other credible evidence, which are ten percent (10%) or more above the emission limit.
- Exceedances of parameter limits established by your Operating Permit or other approvals, where the parameter limit is identified by the permit or approval as surrogate for an emission limit.
- Exceedances of permit operational limitations directly correlated to excess emissions.
- Failure to capture valid emissions or opacity monitoring data or to maintain monitoring equipment as required by statutes, regulations, your Operating Permit, or other approvals.
- Failure to perform QA/QC measures as required by your Operating Permit or other approvals for instruments that directly monitor compliance.

For all other deviations, three (3) day notification is waived and is satisfied by the documentation required in the subsequent Semi-Annual Monitoring Summary and Certification. Instructions and forms for reporting deviations are found in the Massachusetts MassDEP of Environmental Protection Bureau of Waste Prevention Air Operating Permit Reporting Kit, which is available on the MassDEP's web site: <http://www.mass.gov/dep/air/approvals/aqforms.htm#op>.

This report shall include the deviation, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and the corrective actions or preventative measures taken.

Deviations that were reported by telephone or fax within 3 days of discovery, said deviations shall also be submitted in writing via the Operating Permit Deviation Report to the regional Bureau of Waste Prevention within ten (10) days of discovery. For deviations, which do not require 3 day verbal notification, follow-up reporting requirements are satisfied by the documentation required in the aforementioned Semi-Annual Monitoring Summary and Certification.

26. OPERATIONAL FLEXIBILITY

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

Appendix C(7)(a) and will be appended to the facility's permit. The permit shield allowed for at 310 CMR 7.00: Appendix C(12) shall not apply to these changes.

27. MODIFICATIONS

- (a) Administrative Amendments - The Permittee may make changes at the facility which are considered administrative amendments pursuant to 310 CMR 7.00: Appendix C(8)(a)1., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(b).
- (b) Minor Modifications - The Permittee may make changes at the facility which are considered minor modifications pursuant to 310 CMR 7.00: Appendix C(8)(a)2., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(d).
- (c) Significant Modifications - The Permittee may make changes at the facility which are considered significant modifications pursuant to 310 CMR 7.00: Appendix C(8)(a)3., provided they comply with the requirements established at 310 CMR 7.00: Appendix C(8)(c).
- (d) No permit revision shall be required, under any approved economic incentives program, marketable permits program, emission trading program and other similar programs or processes, for changes that are provided in this operating permit. A revision to the permit is not required for increases in emissions that are authorized by allowances acquired pursuant to the Acid Rain Program under Title IV of the Act, provided that such increases do not require an operating permit revision under any other applicable requirement.

28. 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) 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.