Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection
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Administrative Amendment to an
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"]:
University of Massachusetts
Massachusetts Avenue
Amherst, MA 01003

INFORMATION RELIED UPON:
Application No. 24-AQ11-0007-AMD
eplace Authorization No. AQ14-0000027
Approval No. WE-19-019

FACILITY LOCATION:
University of Massachusetts
Massachusetts Avenue
Amherst, MA 01003

FACILITY IDENTIFYING NUMBERS:
AQ ID: 0420004
FMF FAC NO.: 133008
FMF RO NO.: 50003

NATURE OF BUSINESS:
Educational Institution

Standard Industrial Classification (SIC):
8221 – Colleges, Universities, and Professional Schools
North American Industrial Classification System (NAICS):
61131 – Colleges, Universities, and Professional Schools

RESPONSIBLE OFFICIAL:
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This Operating Permit shall expire on February 17, 2026 .
For the Department of Environmental Protection

September 12, 2024
Date

Michael Gorski
Regional Director
Department of Environmental Protection
Western Regional Office

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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 University of Massachusetts – Amherst ("UMass-Amherst") is a state university that provides undergraduate and graduate education programs. The facility uses power and steam for heating from a Central Heating Plant ("CHP") which includes a combustion turbine/11-megawatt generator, heat recovery steam generator ("HRSG") with duct burner, and three package boilers, all burning natural gas and/or ultra-low sulfur distillate oil ("ULSD"). The CHP also includes a low-pressure steam turbine/ generator nominally rated at 4 MW and a high-pressure steam turbine /generator nominally rated at 2 MW.

The combustion turbine generator (CTG) is a Solar Mars 100 series model 1600S turbine with a nominal rating of 11 megawatts (MW) and a heat input rating of approximately 128 million British Thermal Units per hour ("MMBtu/hr") while burning either natural gas or ultra-low sulfur distillate oil. The CTG exhaust gas is discharged to a heat recovery steam generator ("HRSG") with a rated steam output of 100,000 pounds per hour ("lb/hr") equipped with a duct burner with a maximum rating of 91.8 MMBtu/hr that is fired exclusively with natural gas. The CTG utilizes a dry low-NO_X ("DLN") combustor in conjunction with a selective catalytic reduction ("SCR") add-on control system to minimize the emissions of nitrogen oxides ("NO_X"). The CTG is also be equipped with an oxidation catalyst system to control carbon monoxide ("CO") emissions.

Also, part of the Central Heating Plant are three boilers which consist of one high pressure boiler (Boiler #200-HP) rated at 173.4 MMBtu/hr firing ULSD and 179.7 MMBtu/hr while firing natural gas and two low-pressure boilers (Boiler #300-LP and #400-LP) rated at 156.1 MMBtu/hr firing ULSD and 162.1 MMBtu/hr firing natural gas. All are rated at approximately 125,000 lb/hr steam flow. Each boiler utilizes low-NO_X burners (LNB) in combination with an SCR NO_X control system and an oxidation catalyst system to control CO.

MassDEP issued UMass-Amherst an Approval to Construct #1-B-02-043 for the Central Heating Plant on February 20, 2004. The installation and operation of the CHP was a "major modification" of an existing major source or air pollution since there was a significant increase in emissions of PM10, therefore the CHP is subject to the requirements of the Prevention of Significant Deterioration (PSD) as set forth in 40 CFR 52.21. The Approval to Construct was amended on August 9, 2005 to include the PSD Air Permit (#046-26-MA07, issued July 5, 2005) provisions. On October 29, 2008 EPA issued modified PSD Air Permit (#050-026-MA11) to address changes in the CHP facility design during construction, namely replacing two low-pressure boilers with a single high-pressure boiler, increasing the heat input of the HRSG's duct burner, and redesigning the CHP smokestacks. MassDEP issued Plan Approval #1-B-08-015 on December 31, 2009 to reflect the actual equipment installed in response to a Notice of Non-compliance. Additional Amendments were issued in 2011 to clarify monitoring data capture requirements, and on June 14, 2013 to up-rate the CTG power production by installing up-rated replacement components with only a slight increase in fuel input and potential emissions. The up-rated CTG was below PSD thresholds for all pollutants and did not trigger PSD review and a non-major modification of the existing PSD (050-026-MA11 rev. 1, December 19, 2013) was issued to reflect the revised potential emissions resulting from up-rating the CTG.

On May 7, 2020 MassDEP issued UMass-Amherst Approval #WE-20-001 (ePlace Authorization #AQ02F-0000058) for the construction and operation of a dual fuel-fired boiler at the CHP. The new boiler will provide

boiler redundancy and reliability to accommodate campus growth since the CHP was originally built over a decade ago. The new boiler, designated as Emission Unit (EU) #51, will have a maximum heat input rate of 38.31 MMBtu/hr firing ULSD and 39.8 MMBtu/hr while firing natural gas. On September 11, 2024 Approval #WE-24-009; Appl. 24-AQ34-0034-AMD was issued to administratively amend Approval #WE-20-001 to adjust the definition of ULSD for EU #51 to include renewable and petroleum fuels meeting ASTM D975-20 Grade Nos. 1-D S15 or 2-D S15, regardless of diesel fuel feedstock. A new temporary 8,000-gallon tank will be used to store renewable diesel fuel products. The boiler will utilize ultra-low nitrogen oxides burner (ULNB) and flue gas recirculation (FGR) to minimize NO_X emissions. The boiler will utilize natural gas as the primary fuel with the ability to fire up to 1,300,000 gallons of ULSD per year if natural gas is not available.

Other lesser sources of emissions include 73 emergency engines/generators (16 of which are certified for operation under the MassDEP Environmental Results Program), parts degreasers, a spray booth, and a gasoline storage tank and dispenser. Emergency stationary reciprocating internal combustion engines (RICE) installed after June 12, 2006 are listed in Table 1b and are designated as Emission Unit (EU) 18a for Compression Ignition (CI) engines and EU 18b for Spark Ignition (SI) natural gas fired engines. Existing Institutional Emergency Stationary RICE with heat input values below 3 million British Thermal Units per Hour (MMBtu/Hr/each) installed before June 12, 2006 are defined as existing units which are exempt from the requirements of 40 CFR 60 Subpart ZZZZ and listed in Table 1c as an Emission Unit (EU 20) for informational purposes only.

Two 234,810-gallon storage tanks for ULSD and two 4,300-gallon storage tanks containing 19.5% aqueous ammonia ("NH3") are located at the CHP facility. The NH_3 tanks are single wall, steel, horizontal fixed-roof storage tanks located inside a single impervious concrete secondary containment dike which has sufficient volume to contain 110 percent of the liquid from one of the tanks. Although the storage tanks are not subject to any air pollution control regulations, they are included for descriptive purposes.

The facility submitted a timely operating permit renewal application to MassDEP, which was received on July 31, 2019, in accordance with 310 CMR 7.00 Appendix C(4)(b)4.

Applicable Regulatory Requirements

Because the CTG commenced construction, modification, or reconstruction after February 18, 2005, per §60.4305 the turbine and duct burner are subject to 40 CFR 60 Subpart KKKK, Standards of Performance for Stationary Combustion Turbines. The CTG is subject to the NSPS for stationary combustion turbines which limits NOx emissions and sulfur content in fuel. The CTG meets the NOx limit through the use of dry low NOx combustion and SCR add-on control equipment and meets the sulfur content limit through the use of clean fuels. The 91.8 MMBtu/hr duct burner serving the HRSG is not subject to the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating units (40 CFR 60, Subpart Dc) because in accordance with 40 CFR §60.40c(e) and §60.4305(b) it is associated with the Stationary Combustion Turbine and subject to the requirements of Subpart KKKK. The use of Dry Low NO_X combustion, SCR and Oxidation Catalysts along with the burning of natural gas and ULSD oil as a backup on the CTG constitute BACT.

The three boilers (EU's #16a and 16b) which each have a maximum rated capacity of more than 100 MMBtu/hr, they are subject to the particulate and NOx standards under 40 CFR 60 Subpart Db. Because the boilers also burn ULSD oil, they will not be subject to the SO_2 standards under subpart Db. Compliance with BACT through the use of Low NO_X Burners (LNB) and Flue Gas Recirculation (FGR) along with SCR ensures that the NOx emissions from the three boilers is well below the applicable NSPS. An Oxidation Catalyst to control CO and particulate emissions is also BACT.

The newly proposed 39.8 MMBtu/hr dual fuel-fired boiler (EU #51) will be subject to the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60, Subpart Dc) because it has a maximum design heat input capacity between 10 and 100 MMBtu/hr and will commence construction after June 9, 1989. Because this boiler will also burn ULSD oil with a sulfur content limit of 0.0015% by weight, it will automatically comply with the SO_2 standards under Subpart Dc. Compliance with BACT through the use of Ultra-Low NO_X Burners (ULNB) and FGR ensure that NO_X emissions will be well

below the applicable NSPS. Emissions of $PM/PM_{10}/PM_{2.5}$ and CO will comply with BACT through limiting the annual ULSD usage to no more than 1,300,000 gallons per year and will optimize combustion by using an oxygen trim system.

UMass-Amherst has demonstrated that it is a Non-major Source (Area Source) of Hazardous Air Pollutants (HAP) by calculating the facility-wide total and individual HAP potential to emit to be less than the major source thresholds of 25 tons per year and 10 tons per year, respectively. As such Emission Unit 9 is subject to 40 CFR Part 63, Subpart HHHHHH; National Emissions Standards for Hazardous Air Pollutants for Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources, and Emission Units 16a and 16b are subject to 40 CFR 63, Subpart JJJJJJ; National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers at Area Sources.

40 CFR Part 63, Subpart ZZZZ
Also, as an Area Source of HAPs, Emission Unit 17, Emission Units 18a and 18b, and Emission Unit 19 are subject to federal regulations at 40 CFR Part 63, Subpart ZZZZ; National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. These Emission Units must meet the requirements of 40 CFR Part 63, Subpart ZZZZ by meeting the requirements of 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines or 40 CFR 60, Subpart JJJJ Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.

40 CFR Part 63, Subpart CCCCCC
The 20,000 gallon above ground gasoline storage tank and dispenser (EU 12) was installed at the facility before November 9, 2006 and is located at an area source of HAP. The storage tank has a monthly throughput of less than 100,000 gallons. Therefore, the storage tank is subject to the federal National Emission Standards for Hazardous Air Pollutants for Gasoline Dispensing Facilities, 40 CFR 63, Subpart CCCCCC. The standards became effective on January 10, 2011 for existing affected sources. The applicable requirements have been included in this operating permit.

40 CFR Part 64, Compliance Assurance Monitoring
UMass-Amherst is exempt from the requirements of 40 CFR Part 64: Compliance Assurance Monitoring (CAM) since the emission limitations for which there is a control device are required to have a continuous compliance determination method (NO_X/CO CEMS), as defined in 40 CFR §64.1. This exemption is specified in 40 CFR §64.3(d).

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).

Table 3 of this Operating Permit contains the emission unit emission limits and restrictions. The NSPS limits are not listed in Table 3 where MassDEP plan approval emission limits are more stringent. Table 4 contains monitoring/testing requirements. Table 5 contains record keeping requirements. Table 6 contains reporting requirements. Table 7 contains the requirements that are not currently applicable.

2. EMISSION UNIT IDENTIFICATION

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

Table 1a

EU	Description of EU	EU Design Capacity	Pollution Control Device (PCD)
EU 8	Parts degreasers	n/a	none
EU 9	Spray booth (for vehicles & vehicle parts)	n/a	filter pads
EU 12	Underground Gasoline Storage Tank and dispenser	20,000 gallons	Stage 1 Vapor Recovery
EU 15a	Combustion turbine/generator	CTG: 128 MMBtu/hr / 11 MW	Low NO_X combustor, SCR, CO catalyst
EU 15b	Heat recovery steam generator/duct burner	Duct Burner: 91.8 MMBtu/hr	
EU 16a	1 high-pressure package boiler (1)	1 x 179.7 MMBtu/hr on natural gas	Low NO_X burners, SCR, CO catalyst
EU 16b	2 low-pressure package boilers (1)	2 x 162.1 MMBtu/hr on natural gas	
EU 17	Emergency Engine; 2006 model year – compression ignition; diesel oil fuel	9.13 MMBtu/hr, 1357hp; 900 kW output	none
EU 18a (shaded in Table 1b)	Emergency Engines; Compression Ignition; diesel oil fuel; ≥37kW Engines - Reg. 310 CMR 7.26(42) Industry Performance Standards and 40 CFR 60 Subpart IIII	Various See Table 1b for list of engines. List will be maintained up-to-date in accordance with 310 CMR 7.26(42)(f)	none
EU 18b (non-shaded in Table 1b	Emergency Engines; Spark Ignition; natural gas fuel - ≤ 500hp; ≥37kW Engines - Reg. 310 CMR 7.26(42) Industry Performance Standards and 40 CFR 60 Subpart JJJJ	Various See Table 1b for list of engines. List will be maintained up-to-date in accordance with 310 CMR 7.26(42)(f)	none
EU 19	2 Emergency engines; 2007 model year – John Deere Engine Model No. 3029TF270D	~ 0.5 MMBtu/hr ea.; 64 hp ea.; 48 kW output ea.	none
EU 20 (Table 1c)	Existing Emergency Engines; Pre-2006	Various See Table 1C for list of engines. List will be maintained up-to-date in accordance with 310 CMR 7.26(42)(f)	none
EU 51	Dual Fuel-Fired Johnston Boiler	39.8 MMBtu/hr on natural gas 38.31 MMBtu/hr on ULSD or Renewable Fuel meeting ASTM D975	Ultra-Low NO_X Burner FGR

Table 1 Key

EU = Emission Unit
CMR = Code of Massachusetts Regulations
CFR = Code of Federal Regulations
CO = Carbon Monoxide
FGR = Flue Gas Recirculation
kW = Kilowatts
PCD = Pollution Control Device
NO_X = Nitrogen Oxides
MMBtu/hr = Million British Thermal Units per hour
MW = Megawatts
SCR = Selective Catalytic Reduction
ASTM = American Society for Testing Materials

Table 1 Footnote:

(1) Heat input ratings are based at ambient temperature of 80 °F.

2. EMISSION UNIT IDENTIFICATION (continued)

Table 1b

Address		Genset Manufacturer	Genset Model #	Manufacturer	Model #	Serial #	Capacity (KW)	Fuel	Installation Date
180 Clark Hill Road, Amherst	Van Meter	Cummins	DSHAA-5767797	Cummins	QSL9-G2	30004117	150	oil	09/29/2006
651 N. Pleasant St., Amherst	Skinner Hall	Cummins	DSHAA-5788555	Cummins	QSL9-G2	46714511	150	oil	02/01/2008
661 N. Pleasant St., Amherst	Integrated Science Building	Caterpillar	C27	Caterpillar	C27 Dita	MJE00576	800	oil	10/23/2008
255 Holdsworth Way, Amherst	Transit Services	Kohler	100REOZJD	John Deere	4045HF2851	2210755	100	oil	12/07/2008
161 Commonwealth Ave. Amherst	Recreation Center	Kohler	60 REOZJC	John Deere	5030HF285G	PE5030LO06354	60	oil	08/04/2009
121 County Circle, Amherst	Berkshire House	Cummins	DSFAE-545725	Cummins	QSB5-G3-NR3	73005308	80	oil	08/25/2009
585 E. Pleasant St., Amherst	UMass Police Department	Cummins	DFEK-4785071	Cummins	QSX15-G9-NR2	79430310	500	oil	07/21/2010
80 Campus Center Way, Amherst	Stockbridge Hall	Kohler	100REOZJE	John Deere	4045HF2851	PE4045L137556	118	oil	11/17/2010
630 N. Pleasant St., Amherst	Morrill Science Building	Kohler	250REOZJE	John Deere	6090HF484	RG6090L102515	250	oil	07/25/2011
300 Campus Center Way, Amherst	Physical Plant	Milton Cat	D-80-6	Caterpillar	C4.4	E5M03229	80	oil	08/26/2011
1 Campus Center Way, Amherst	Lincoln Campus Ctr. Parking Garage	Kohler	500REOZVB	Volvo	TAD 1641GE	D16054849C3A	510	oil	05/16/2012
137 Hicks Way, Amherst	Central	Kohler	350REOZDD	Detroit Diesel	8DDXL14OVLD	06R1020403	350	oil	02/06/2009
Thatcher Way, Amherst	Brett Hall	Kohler	200REOZJF	John Deere	6068HFG85	6068L920352	200	oil	2013
31 Cold Storage Drive, Amherst	Aux Cold Storage	Kohler	150REOZJF	John Deere	6068HF285	PE60686L45673	150	oil	2014
160 Clark Hill Road, Amherst	Baker	Kohler	200REOZJF	John Deere	6068HF485	PE6068N007753	250	oil	2018
92 Eastman Lane, Amherst	Brown	Kohler	180REOZJF	John Deere	6068HFG85	PE6068L890519	180	oil	2012
112 Eastman Lane, Amherst	Cashin	Kohler	200REOZJF	John Deere	6068HF285	PE6068L917797	200	oil	2013
190 Commonwealth Ave., Amherst	Champion Center	Generac	SD0050	Generac	D3400T-Gen1	9484993	50	oil	2015

Table 1b

Address		Genset Manufacturer	Genset Model #	Manufacturer	Model #	Serial #	Capacity (KW)	Fuel	Installation Date
150 Chancellor's Drive, Amherst	Chancellor	Caterpillar	D40-6S	Caterpillar	C4.4	E3L00734	37.1	oil	2014
140 Governors Drive, Amherst	Computer Science	Kohler	60REOZK	Kohler	KD13404TM/ G18	4718502510	60	oil	2017
256 Sunset Avenue, Amherst	Crampton House	Cummins	DKAC-5674222	Kubota	D1703	04E0420	10	oil	Post-2006
52 Eastman Lane, Amherst	D North	Cummins	300DFCB-5833	Cummins	NTA855-Z2	30373167	200	oil	2006
40 Campus Center Way, Amherst	Draper Hall	Kohler	100REOZF	John Deere	4045HF285	PE4045L245650	100	oil	2014
1 Campus Center Way, Amherst	Dubois Library (CC Garage)	Stamford	HC1634G1	Cummins	DQCC-1411620	H140727500	800	oil	2015
151 Presidents Drive, Amherst	Fine Arts Center	Cummins	200 ODFP-4XRV103100	Cummins	6090HF484	371291517	200	oil	2013
696 N. Pleasant Street, Amherst	Goessman	Cummins	DFEH-1205175	Cummins	QSX15-G9	79577668	400	oil	2013
90 Butterfield Terrace, Amherst	Gorman House	Kohler	150REOZJF	John Deere	6068HF285	PE6068L274221	150	oil	2015
157 Commonwealth Ave., Amherst	Honors College	Caterpillar	C27	Caterpillar	C27ACERT	MJE03339	800	oil	2013
650 Pleasant Street, Amherst	Integrative Learning Center	Kohler	200REOZJF	John Deere	PE6068HF485	PE6068L90805	200	oil	2014
161 Fearing Street, Amherst	John Adams House #1	Kohler	150REOZJF	John Deere	6068HF	PE6068L287046	154	oil	2017
161 Fearing Street, Amherst	John Adams House #2	Kohler	150REOZJF	John Deere	6068HF	PE0668L287047	154	oil	2017
240 Thatcher Road, Amherst	Life Science #1	Cummins	DQGAB-7695021	Cummins	QSK50-G4NR2	25368214	1500	oil	2013
240 Thatcher Road, Amherst	Life Science #2	Cummins	DQGAB-7695001	Cummins	QSK50-G4NR2	25368212	1500	oil	2013
230 Mullins Way, Hadley	LNG/RO	Kohler	300REOZ	John Deere	6090HFG85A	RG6090L125608	300	oil	2016
300 Stadium Drive, Amherst	McGuirk Stadium-Perfomance Ctr.	Kohler	180REOZJG	John Deere	6068HFG82	PE6068L934034	212	oil	2014
300 Stadium Drive, Amherst	McGuirk Stadium-Bubble	Generac (SI)	SD0080KG174 5D 18HPYY3	Generac	F4GE9485A	1699638	80	oil	2019

Table 1b

Address		Genset Manufacturer	Genset Model #	Manufacturer	Model #	Serial #	Capacity (KW)	Fuel	Installation Date
102 Eastman Lane, Amherst	McNamara	Kohler	200REOZJF	John Deere	6068HF285	PE6068L920352	200	oil	2013
990 North Pleasant St., Amherst	North Village	Kohler	80REOZJF	John Deere	4045HF285	PE4045L267604	80	oil	2015
161 Holdsworth Way, Amherst	Paige	Kohler	100REOZJF	John Deere	4045HF285	PE4045L252854	100	oil	2014
201 Fearing St., Amherst	Pierpont Hall	Cummins	DNAF-5627340	Lister Petter	Unknown	Unknown	20	oil	2008
286 Sunset Ave., Amherst	Prince House	Kohler	150REOZJF	John Deere	6068HF285K	PE6068L258683	150	oil	2014
690 N. Pleasant St., Amherst	PSB	Cummins	DQCC-1635171	Cummins	Unknown	160998276	800	oil	2017
150 Hicks Way, Amherst	South College	Cummins	DSGAD-A054N838	Cummins	QSB7-G5-NR3	73952459	117	oil	2016
30 Eastman Lane, Amherst	Totman	Kohler	350REOZJ	John Deere	6135HF485	RG6135L027900	350	oil	2013
150 Infirmary Hall, Amherst	University Health Center	Kohler	200REOZJF1	John Deere	6068HFG82		200	oil	2019
128 Tilson Farm Road, Amherst	Grounds Maintenance (Tilson)	Kohler	100RF02JD	John Deere	4045HF285	PE4045L076319	100	oil	2014
225 Holdsworth Way, Amherst	Transit Services (PVTA)	Kohler (SI)	60 RZG	Power Solutions	60RZG	33500014	63	NG	02/24/2009
300 Stadium Drive, Amherst	McGuirk Stadium	Generac (SI)	SG200	Generac	10015540300	88486	200	NG	03/19/2009
211 Natural Resources Road, Amherst	Research & Education Greenhouse	Generac (SI)	SC150	Generac	6.8GLPNGD-150	BGNZB06.82C3	150	NG	06/22/2011
100 Emerson Road, Amherst	Emerson House	Cummins	GGMB-1205290	General Motors	GM 3.0L	60431	25	NG	2013
660 Massachusetts Ave., Amherst	James House	Cummins	GGMB-1205304	General Motors	GM 3.0L	60436	25	NG	2012
650 Massachusetts Ave., Amherst	Melville House	Cummins	GGMB-1205290	General Motors	GM 3.0L	60437	25	NG	2013
990 N. Pleasant Street, Amherst	North Village	Generac	OTO2524ANSNA	Mitsubishi	4G64S4M	SLA4351	25	NG	Post-2006

Table 1b

Address		Genset Manufacturer	Genset Model #	Manufacturer	Model #	Serial #	Capacity (KW)	Fuel	Installation Date
204 Sunset Ave., Amherst	Patterson/ McKimmie	Kohler	40RZGB	General Motors	GM 3.0L	3POL43229	30	NG	2009
640 Massachusetts Ave., Amherst	Thoreau House	Cummins	GGMB-1205304	General Motors	GM 3.0L	60430	25	NG	2013

Table 1b Foot Notes:

The engines in shaded rows are compression ignition engines subject to 40 CFR Part 60 Subpart IIII, and are designated as EU 18a. The other emergency engines are spark ignited emergency engines subject to 40 CFR Part 60 Subpart JJJJ and are designated as EU 18b.

An up-to-date list will be maintained at the facility in accordance with 310 CMR 7.26(42)(f).

Table 1c

Address		Genset Manufacturer	Genset Model #	Manufacturer	Model #	Serial #	Capacity (KW)	Fuel	Installation Date
351 Hicks Way, Amherst	Dickinson Hall	Caterpillar	SR4 3304	Caterpillar	3304	83Z11571	111	oil	1999
Thatcher Way, Amherst	Brett Hall OIT	Caterpillar	SR4 3304	John Deere	6068HFG85	6068L920352	111	oil	1999
120 Governors Drive, Amherst	Conte Polymer Science	Caterpillar	SR4 3304	Caterpillar	3508	12F00663	1250	oil	1995
630 Massachusetts Ave., Amherst	Coolidge	Onan	115DFC-4R8/1E		HRF-6-1-1P	450569	115	oil	1966
101 North Service Road, Amherst	E-Lab 2	Caterpillar	SR4	Caterpillar	3412	9EP02457	500	oil	2003
121 Presidents Drive, Amherst	Isenberg SOM	Kohler	500ROZD4	Detroit Diesel	R0837K36	5312001679	500	oil	2001
171 Fearing Street, Amherst	John Quincy Adams House	Cummins	400FOC44DA	Cummins	NH220GS	461688	125	oil	1966
620 Massachusetts Ave., Amherst	Kennedy House	Onan	115DFC-4R8/1E		HFF-6-1-1P	4505707	115	oil	1966
740 N. Pleasant Street, Amherst	Lederle OIT	Caterpillar	3306	Caterpillar	3306	9NR03863	225	oil	1999
Southwest Circle, Amherst	Southwest OIT	Caterpillar	SR4	Caterpillar	3304	83Z11542	111	oil	1999
102 Eastman Lane, Amherst	Sylvan OIT	Caterpillar	SR4	Caterpillar	3304	9AB06744	111	oil	1999
135 Hicks Way, Amherst	Tobin	Onan	30.ODEH-4R8/9075	Ford	242DF-6005A	706909	30	oil	1972
181 Fearing Street, Amherst	Washington	Cummins	400F0C44DA	Cummins	NH220GS	461889	125	oil	1966
141 Orchard Hill Dr., Amherst	Webster House	Caterpillar	LC6	Caterpillar	3406	1DZ10602	350	oil	Pre 2006
154 Hicks Way, Amherst	Dubois Library OIT	Caterpillar	SR4B	Caterpillar	3306B	4FD02058	250	NG	1972
131 Southwest Circle, Southwest Residential Area, Amherst	Hampden Dining Hall	Onan	12RJC-3R8/13E	Onan	P2805	1G0857725	12.5	NG	Pre-2006
740 N. Pleasant Street, Amherst	Lederle LGRC	Onan	1.0AJ-1R/8390K	Onan	1.0AJ-1R8390	1070256895	1.0	NG	Pre-2006
260 Stockbridge Road, Amherst	Franklin Dining Hall	Onan	1010JC3R/1J	Onan	P2292	113C7-43248	10	NG	Pre-2006

Table 1c Foot Notes:

The engines in shaded rows are compression ignition engines the other emergency engines are spark ignited emergency engines and are designated as EU 20.

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 Table 3 below:

Table 3a

EU	Fuel/Raw Material	Pollutant	Operational and/or Production Limits	Emissions Limits/Standards	Applicable Regulation and/or Approval No
EU 8	Solvent	VOC	< 100 gal/month solvent per degreaser Solvent vapor pressure must be ≤ 1.0 mm Hg measured at 20 °C	n/a	310 CMR 7.03(8) 310 CMR 7.18(1) 310 CMR 7.18(8)
EU 9	Coatings applied in paint spray booth	VOC [1]	< 670 gallons of VOC-containing compounds per month or < 2.5 tons VOC per month facility wide See Table 8	Pretreatment Wash Primer ≤ 6.5 lb/gal Primer/Primer Surfacer ≤ 4.8 lb/gal Primer Sealer ≤ 4.6 lb/gal Single or Two-Stage Topcoat ≤ 5.0 lb/gal Three or Four-Stage Topcoat ≤ 5.2 lb/gal Specialty Coating ≤ 7.0 lb/gal Prep./cleanup solution ≤ 1.67 lb/gal	310 CMR 7.03(16) 310 CMR 7.18(28)
		HAP	See Table 8 Items 3 to 10	98% Capture of Paint Overspray	40 CFR Part 63 Subpart HHHHHH
		Opacity	n/a	0 %	310 CMR 7.03(16)(j)
EU 12	Gasoline Motor Vehicle Fuel	VOC	Operate Stage 1 vapor recovery systems; restrict gasoline throughput to < 100,000 gallons per calendar month	None	310 CMR 7.03(13) 310 CMR 7.24(3)
		HAP			40 CFR Part 63 Subpart CCCCCC

Table 3b Foot Notes:

(1) Emission Limit is in pounds of VOC per gallon of coating.

Table 3b

EU	Fuel/Raw Material	Pollutant	Emissions Limits/Standards				Operational and/or Production Limits	Applicable Regulation and/or Approval No.
			natural gas		ULSD oil			
EU 15a (CTG) with EU 15b (duct burner)	natural gas or ULSD oil; only natural gas may be burned in the duct burner	Particulate Matter (4)	7.87 lb/hr	0.030lb/MMBtu	8.09 lb/hr	0.030 lb/MMBtu	≤ 2,229,611 gallons (6) (combustion turbine only; rolling 12-month total)	MassDEP Approval #1-B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13)
		PM_{10} (5) – particulate matter ≤ 10 µm diameter	7.87 lb/hr 4.73 lb/hr w/o duct burner	0.030 lb/MMBtu 0.030 lb/MMBtu w/o duct burner	9.71 lb/hr 5.74 lb/hr w/o duct burner	0.036 lb/MMBtu 0.036 lb/MMBtu w/o duct burner		
		VOC	0.50 lb/hr	0.0041 lb/MMBtu	0.87 lb/hr	0.0074 lb/MMBtu		40 CFR 60 Subpart KKKK
		SO_2	0.57 lb/hr	0.0022 lb/MMBtu	0.49 lb/hr	0.0018 lb/MMBtu		
		CO	3.12 lb/hr	5.0 ppmvd (8)	3.01 lb/hr	5.0 ppmvd (8)		
		NO_X	2.56 lb/hr	2.5 ppmvd (8)	5.94 lb/hr	6.0 ppmvd (8)		EPA PSD Permit No. 050-026-MA11 for PM_{10} emissions only (9/24/08; Rev. 1 – 12/19/2013)
			19.0 lb/hr (11)	18.7 ppmvd (8,11)	19.0 lb/hr (11)	18.7 ppmvd (8,11)		
		NH_3	0.86 lb/hr	2.5 ppmvd (8,9) 7.5 ppmvd (8,10)	0.88 lb/hr	4.0 ppmvd (8,9) 10.0 ppmvd (8,10)		
			7.2 lb/hr (12)	20.0 ppmvd (8,9,12)	7.2 lb/hr (12)	20 ppmvd (8,9,12)		

Table 3b Foot Notes:

(1) The emission rates for the CTG/Duct burner are based on worst case emission rate (100% load, duct burner on except where noted, and 0 °F ambient temperature),
(2) The lb/hr and lb/MMBtu emission rates are based on a 1-hour block average and do not apply during startup and shutdown, except as noted otherwise. The ppmvd limits also do not apply during startup or shutdown.
(3) The PM10 emission limit is applicable during startup and shutdown. All other criteria pollutant mass emission rates during startup and shutdown will be quantified during initial compliance testing and used in the determination of annual mass emissions.
(4) Particulate matter measured as filterable particulate (front-half catch) using applicable procedures specified in 40 CFR 60 Appendix A, Method 5.
(5) Particulate matter as measured by 40 CFR 51, Appendix M, Test Method 201 or 201A and Test Method 202.
(6) Additional ULSD oil may be burned if a fuel BACT analysis is submitted to MassDEP and an approval is issued by MassDEP in writing.
(7) MassDEP emission limits for NO_X and limits of sulfur content in fuel are more stringent than the specified federal New Source Performance Standard limits.
(8) "ppmvd" emission limits are corrected to 15% O_2 for CTG/Duct burner and corrected to 3% O_2 for the boilers based on a 1-hour average.
(9) Ammonia ppmvd limit is based on a 1-hour block average during NORMAL OPERATION, and a 24-hour block average for ALL OTHER TIMES.
(10) Ammonia ppmvd limit is based on a 1-hour block average during TRANSIENT OPERATION.
(11) NO_X emission limits during < 0 °F ambient temperature conditions, which cannot exceed 300 hours per calendar year.
(12) Ammonia emission limits during < °0 F ambient temperature conditions, which cannot exceed 300 hours per calendar year.

Table 3c

EU	Fuel/Raw Material	Pollutant	Emissions Limits/Standards (1) (2) (3)				Operational and/or Production Limits	Applicable Regulation and/or Approval No.
			natural gas		ULSD oil			
EU 16a (High Pressure Boiler)	natural gas or ULSD oil	Particulate Matter (4)	3.59 lb/hr	0.020 lb/MMBtu	3.47 lb/hr	0.020 lb/MMBtu	Oct. 1 – April 30 ≤ 15,508,252 gallons (6) May 1 – Sept. 30 ≤ 6,357,830 gallons (6)	MassDEP Approval #1-B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13) EPA PSD Permit No. 050-026-MA11 for PM_{10} emissions only (9/24/08; Rev. 1 – 12/19/2013) 40 CFR Part 60 Subpart Db (7) 40 CFR Part 63 Subpart JJJJJJ
		PM_{10} (5) – particulate matter ≤ 10 µm diameter	3.59 lb/hr	0.020 lb/MMBtu	5.21 lb/hr	0.03 lb/MMBtu		
		VOC	0.95 lb/hr	0.0054 lb/MMBtu	0.44 lb/hr	0.0025 lb/MMBtu		
		SO_2	0.40 lb/hr	0.0022 lb/MMBtu	0.28 lb/hr	0.0016 lb/MMBtu		
		CO	3.90 lb/hr	0.022 lb/MMBtu 20.0 ppmvd (8)	4.54 lb/hr	0.026 lb/MMBtu 25.0 ppmvd (8)		
		NO_X	1.60 lb/hr	0.009 lb/MMBtu 5.0 ppmvd (8)	2.68 lb/hr	0.016 lb/MMBtu 9.0 ppmvd (8)		
		NH_3	0.16 lb/hr	2.5 ppmvd (8,9) 7.5 ppmvd (8,10)	0.17 lb/hr	4.0 ppmvd (8,9) 10.0 ppmvd (8,10)		
EU 16b (Low Pressure Boiler)	natural gas or ULSD oil	Particulate Matter (4)	3.24 lb/hr	0.020 lb/MMBtu	3.13 lb/hr	0.020 lb/MMBtu		
		PM_{10} (5) – particulate matter ≤ 10 µm diameter	3.24 lb/hr	0.020 lb/MMBtu	4.68 lb/hr	0.030 lb/MMBtu		
		VOC	0.87 lb/hr	0.0054 lb/MMBtu	0.39 lb/hr	0.0025 lb/MMBtu		
		SO_2	0.36 lb/hr	0.0022 lb/MMBtu	0.25 lb/hr	0.0016 lb/MMBtu		
		CO	3.52 lb/hr	0.022 lb/MMBtu 20.0 ppmvd (8)	4.08 lb/hr	0.026 lb/MMBtu 25.0 ppmvd (8)		
		NO_X	1.45 lb/hr	0.009 lb/MMBtu 5.0 ppmvd (8)	2.42 lb/hr	0.0155 lb/MMBtu 9.0 ppmvd (8)		
		NH_3	0.14 lb/hr	2.5 ppmvd (8,9) 7.5 ppmvd (8,10)	0.15 lb/hr	4.0 ppmvd (8,9) 10.0 ppmvd (8,10)		

Table 3c Foot Notes:

(1) The boilers emission limits are for single boiler units operating at 100 percent load.
(2) The lb/hr and lb/MMBtu emission rates are based on a 1-hour block average and do not apply during startup and shutdown, except as noted otherwise. The ppmvd limits also do not apply during startup or shutdown.
(3) The PM_{10} emission limit is applicable during startup and shutdown. All other criteria pollutant mass emission rates during startup and shutdown will be quantified during initial compliance testing and used in the determination of annual mass emissions.
(4) Particulate matter measured as filterable particulate (front-half catch) using applicable procedures specified in 40 CFR 60 Appendix A, Method 5.

(5) Particulate matter as measured by 40 CFR 51, Appendix M, Test Method 201 or 201A and Test Method 202.
(6) Additional ULSD oil may be burned if a fuel BACT analysis is submitted to MassDEP and an approval is issued by MassDEP in writing.
(7) MassDEP emission limits for NO_X and limits of sulfur content in fuel are more stringent than the specified federal New Source Performance Standard limits.
(8) "ppmvd" emission limits are corrected to 15% O_2 for CTG/Duct burner and corrected to 3% for the boilers based on a 1-hour average.
(9) Ammonia ppmvd limit is based on a 1-hour block average during NORMAL OPERATION, and a 24-hour block average for ALL OTHER TIMES.
(10) Ammonia ppmvd limit is based on a 1-hour block average during TRANSIENT OPERATION.

Table 3d

EU	Fuel/Raw Material	Pollutant	Emissions Limits/Standards		Operational and/or Production Limits	Applicable Regulation and/or Approval No.
			natural gas	ULSD oil		
EU 15a EU 15b EU 16a EU 16b	ULSD oil or natural gas	Sulfur in Fuel	≤ 0.8 grains/100 ft^3	≤ 0.0015 % by wt.	≤ 24,116,129 gallons (4) (rolling 12-month total)	MassDEP Approval #1-B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13) EPA PSD Permit No. 050-026-MA11 (9/24/08; Rev. 1 – 12/19/2013)
EU 15a EU 15b	ULSD oil or natural gas	Smoke (during 1st hour of startup or shutdown)	≤ 10% (6-minute average)	No. 1 of the Chart no more than 6-minutes during any one hour, no time to exceed No. 2 of the Chart (1)	n/a	MassDEP Approval #1-B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13)
		Opacity (3) (during 1st hour of startup or shutdown)	≤ 10% (6-minute average)	≤ 20%, except 20 to ≤ 40% for ≤ 2minutes during any one hour		
		Smoke/Opacity (3) (at all times except 1st hour of startup or shutdown)	≤ 10% (6-minute average)			
EU 16a EU 16b	ULSD oil or natural gas	Smoke/Opacity (3)	≤ 10% (6-minute average, including startup/shutdown/fuel transfer) (2)			

Table 3d Foot Notes:

(1) Chart means the Ringlemann Scale for grading the density of smoke, as published by the United States Bureau of Mines as referred to in the Bureau of Mines Information Circular No. 8333.
(2) Procedures for responding to Smoke/Opacity from the boilers as indicated by in-stack COMS, are found in the Boiler Opacity SOP approved by MassDEP August 24, 2012 as amended.
(3) Not counting measured opacity caused by water vapor condensation that is attributable to startup in cold weather conditions.
(4) Additional ULSD oil may be burned if a fuel BACT analysis is submitted to MassDEP and an approval is issued by MassDEP in writing.

Table 3e					
EU	**Fuel/Raw Material**	**Pollutant**	**Emissions Limits/Standards**	**Operational and/or Production Limits**	**Applicable Regulation and/or Approval No.**
EU 17	ULSD oil	Sulfur in oil	≤ 0.0015% by weight	Allowed to operate unlimited only during emergency situations ≤ 100 hours of total operation for routine maintenance and testing as recommended by the manufacturer during any 12-month period ≤ 50 hours of non-emergency operation during any 12-month period	40 CFR Part 60 Subpart IIII MassDEP Approval #1-B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13) EPA PSD Permit No. 050-026-MA11 for fuel sulfur limit related to PM10 emissions only (9/24/08; Rev. 1 – 12/19/2013) 310 CMR 7.06(1)(a) and (b)
		Smoke	< No. 1 of the Chart, no more than 6-minutes during any one hour, at no time to exceed No. 2 of the chart (1)		
		Opacity	≤ 20%, except 20 to ≤ 40% for ≤ 2minutes during any one hour		
EU 18a EU 18b	ULSD oil or natural gas	Sulfur in oil	≤ 0.0015% by weight	Allowed to operate unlimited only during emergency situations ≤ 100 hours of total operation for routine maintenance and testing as recommended by the manufacturer during any 12-month period ≤ 50 hours of non-emergency operation during any 12-month period	40 CFR Part 60 Subpart IIII & JJJJ 310 CMR 7.26(42) – for engines subject to ERP 310 CMR 7.06(1)(a) and (b)
		NMHC and NO_X	See Table 8; Special Terms and Conditions; Provisions 19, 20, 29, and 34		
		CO			
		PM			
		Smoke	< No. 1 of the Chart, no more than 6-minutes during any one hour, at no time to exceed No. 2 of the chart (1)		
		Opacity	≤ 20%, except 20 to ≤ 40% for ≤ 2minutes during any one hour		

Table 3e Foot Notes:

(1) Chart means the Ringlemann Scale for grading the density of smoke, as published by the United States Bureau of Mines as referred to in the Bureau of Mines Information Circular No. 8333.

Table 3f

EU	Fuel/Raw Material	Pollutant	Emissions Limits/Standards	Operational and/or Production Limits	Applicable Regulation and/or Approval No.
EU 19	ULSD oil	NO_X + HC	5.02 g/bhp-hr; 0.067 tpy each during any 12-month period	Allowed to operate only during emergency situations or for routine maintenance testing. ≤ 188 hours each of operation during any 12-month period ≤ 100 hours of maintenance and testing operation during any 12-month period	MassDEP Approval #WE-12-014 (7/30/12) 40 CFR Part 60 Subpart IIII 310 CMR 7.06(1)(a) and (b)
		NOX	4.65 g/bhp-hr; 0.062 tpy each during any 12-month period		
		CO	1.09 g/bhp-hr; 0.014 tpy each during any 12-month period		
		VOC (or HC)	0.37 g/bhp-hr; 0.005 tpy each during any 12-month period		
		PM10 (2) – particulate matter ≤ 10µm diameter	0.12 g/bhp-hr; 0.002 tpy each during any 12-month period		
		Sulfur in oil	≤ 0.0015% by weight		
		Smoke	< No. 1 of the Chart no more than 6 minutes during any one hour, at no time to exceed No.2 of the Chart (1)		
		Opacity	≤ 20%, except 20 to ≤ 40% for ≤ 2minutes during any one hour --- ≤ 20%, during the acceleration mode, and ≤ 15% during the lugging mode		
EU 20	All	Opacity	≤ 20%, except 20 to ≤ 40% for ≤ 2minutes during any one hour	Allowed to operate unlimited only during emergency situations ≤ 100 hours of total operation for routine maintenance and testing as recommended by the manufacturer during any 12-month period ≤ 50 hours of non-emergency operation during any 12-month period	310 CMR 7.02(8)(i)1.b. (installed prior to June 1, 1990) 310 CMR 7.03(10)(a) (installed on or after June 1, 1990 and prior to March 23, 2006) 310 CMR 7.06(1)(a) and (b)

Table 3f Foot Notes:

(1) Chart means the Ringlemann Scale for grading the density of smoke, as published by the United States Bureau of Mines as referred to in the Bureau of Mines Information Circular No. 8333.

(2) Particulate matter as measured by 40 CFR 51, Appendix M, Test Method 201 or 201A and Test Method 202.

Table 3g									
EU	**Fuel/Raw Material**	**Pollutant**	**Emissions Limits/Standards (1)**					**Operational and/or Production Limits**	**Applicable Regulation and/or Approval No.**
			natural gas		**ULSD oil (2)**				
EU 51 dual fuel-fired boiler	natural gas or ULSD oil (including renewable or petroleum meeting ASTM D975 Grades 1-D S15 or 2-D S15 criteria)	Particulate Matter (3)	0.08 lb/hr	0.002 lb/MMBtu	0.57 lb/hr	0.015 lb/MMBtu	1.3 TPY	1,300,000 gallons (5) (12-month total)	MassDEP Approval #WE-20-001 40 CFR Part 60 Subpart Dc (6) 40 CFR Part 63 Subpart JJJJJJ
		PM_{10} (4)			0.51 lb/hr	0.013 lb/MMBtu	1.2 TPY		
		$PM_{2.5}$ (4)			0.39 lb/hr	0.010 lb/MMBtu	0.9 TPY		
		NOX	0.44 lb/hr	0.011 lb/MMBtu	5.75 lb/hr	0.15 lb/MMBtu	13.4 TPY		
		CO	2.95 lb/hr	0.074 lb/MMBtu	2.83 lb/hr	0.074 lb/MMBtu	6.6 TPY		
		VOC	1.19 lb/hr	0.03 lb/MMBtu	1.15 lb/hr	0.03 lb/MMBtu	2.7 TPY		
		SO2	0.02 lb/hr	0.0006 lb/MMBtu	0.06 lb/hr	0.002 lb/MMBtu	0.1 TPY		
		Sulfur in Fuel	≤ 0.8 grains/100 ft3		≤ 0.0015% by wt.				
		Smoke	< No. 1 of the Chart, no more than 6-minutes during any one hour, at no time to exceed No. 2 of the Chart (7)						
		Opacity	≤ 10% (6-minute average)						
Facility-wide	All	Greenhouse Gas (8)	n/a					n/a	310 CMR 7.71 **(State Only Requirement)**

Table 3g Foot Notes:

(1) The lb/hr and lb/MMBtu emission rates are based on a 1-hour block average and do not apply during startup and shutdown, except as noted otherwise. The ppmvd limits also do not apply during startup or shutdown.

(2) There are no consecutive 12-month period emission limits that apply to the firing of natural gas in EU 51. Only the firing of ULSD and renewable fuels meeting ASTM D975-20 criteria in EU 51 have applicable 12-month period emission limits.

(3) Particulate matter measured as filterable particulate (front half catch) using applicable procedures specified in 40 CFR 60 Appendix A, Method 5.

(4) PM_{10} and $PM_{2.5}$ as measured by 40 CFR 51, Appendix M, Test Method 201 or 201A and Test Method 202.

(5) Additional ULSD oil and renewable fuels and petroleum products meeting ASTM D975-20 Grade Nos. 1-D S15 or 2-D S15 for ULSD may be burned if a fuel BACT analysis submitted to MassDEP and an approval is issued by MassDEP in writing.

(6) MassDEP emission limits for NO_X and limits of sulfur content in fuel are more stringent than specified in federal New Source Performance Standard limits.

(7) Chart means the Ringleman Scale for grading the density of smoke, as published by the United States Bureau of Mines as referred to in the Bureau of Mines Information Circular No. 8333.

(8) "Green House Gas" means any chemical or physical substance that is is emitted into the air and that MassDEP may reasonably anticipate will cause or contribute to climate change including, but not limited to: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexaflouride (SF_6), hydrofluorocarbons (HFCs), and

perfluorocarbons (PFCs).

Definitions:

NORMAL OPERATION	A 1-hour block period during which the difference between the highest and lowest firing rate for the combustion turbine, duct burner, or a boiler is less than 30 MMBtu/hr.
TRANSIENT OPERATION	A 1-hour block period – and the subsequent hour – during which the difference between the highest and lowest firing rate for the combustion turbine, duct burner, or a boiler is 30 MMBtu/hr or greater.
ALL OTHER TIMES	A 24-hour block period, which may include both normal and transient operation.
STARTUP	Startup is defined as the time when a flame in the emission unit is initiated and the emission unit operation achieves minimum sustained operating load. The duration of startups shall be no greater than 4.0 hours.
SHUTDOWN	Shutdown is defined as the time when the emission unit operation is between minimum sustained operating load and flame-out in the emission unit occurs. The duration of shutdowns shall be no greater than 2.0 hours.
FUEL SWITCHING	Fuel Switching is defined as the time when the emission unit operation is changed from oil to natural gas, or from natural gas to oil. The duration of Fuel Switching shall be no greater than 2.0 hours.

Table 3a to 3g Key:

EU = Emission Unit
CO = Carbon Monoxide
PM = Total Particulate Matter
PM_{10} = Particulate Matter less than or equal to 10 microns in diameter
HC = Hydrocarbons
CO_2 = Carbon Dioxide
CTG = Combustion Turbine Generator
ppmvd = parts per million dry volume basis
ppmvd @ 15% O2 = parts per million by volume, corrected to 15 percent oxygen
lbs/MMBtu = pounds per Million British thermal units
gm/bhp-hr =grams per brake horsepower for one hour (engine output)
% = percent
°C = degrees Celsius
BACT = Best Available Control Technology
COMS = Continuous Opacity Monitoring System
CFR = Code of Federal Regulations
CMR = Code of Massachusetts Regulations
PSD = Prevention of Significant Deterioration Permit
ASTM = American Society for Testing Materials
NO_x = Nitrogen Oxides
NH_3 = Ammonia
NMHC = Non-Methane Hydrocarbons
SO_2 = Sulfur Dioxide
VOC = Volatile Organic Compound
µm = micro-meters
lb/gal = pounds per gallon
lbs/hr = pounds per hour
ppmvd @ 3% O_2 = parts per million by volume, corrected to 3 percent oxygen
< = less than
≤ = less than or equal to
mmHg = millimeters of mercury (pressure drop)
ft^3 = cubic feet
COMS = Continuous Opacity Monitoring System
gal/month = gallons per month
SOP = Standard Operating Procedures
ULSD = Ultra-Low Sulfur Diesel (oil)
tpy = tons per consecutive 12-month period
Nos. = Numbers

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 Table 3:

Table 4a

EU	Monitoring and Testing Requirements
EU 8	1. In accordance with 310 CMR 7.18(8)(h), upon request of the MassDEP, perform or have performed tests to demonstrate compliance with 310 CMR 7.18(8)
EU 9	2. In accordance with 310 CMR 7.18(28)(l), upon request of the MassDEP, perform or have performed tests to determine compliance with 310 CMR 7.18(28). Testing shall be conducted in accordance with USEPA Method 24 and/or Method 25 as described in 40 CFR Part 60, or by other methods approved by the MassDEP or USEPA.
EU 12	3. In accordance with 310 CMR 7.24(3)(e)1.a., UMass-Amherst shall conduct the following compliance tests, as applicable: a. for all Stage I systems: i. Pressure Decay 2-inch Test, per CARB test procedure TP-201.3; ii. Vapor Tie Test, per San Diego Air Pollution Control District test procedure TP-96-1, section 5.1.9; iii. Pressure/Vacuum Vent Valve Test, per CARB test procedure TP-201.1E; iv. Static Torque Rotatable Adaptor Test per CARB test procedureTP-201.1B; and b. for Stage I Enhanced Vapor Recovery Systems only, either Leak Rate of Drop Tube/Drain Valve Assembly Test per CARB Test Procedure TP-201.1 C or Leak Rate of Drop Tube/ Overfill Prevention Devices per CARB Test Procedure TP-201.1D
	4. In accordance with 310 CMR 7.24(3)(d)., UMass-Amherst shall Install, operate, repair, and maintain the Stage I System in accordance with the following requirements, as applicable to the Stage I System: a. for a Stage I Non-Enhanced Vapor Recovery System, all terms and conditions of the applicable Executive Order in accordance with 310 CMR 7.24(3)(c)1. Table 1.; or b. for a CARB certified Stage I Enhanced Vapor Recovery System, all terms and conditions of the applicable Executive Order in accordance with 310 CMR 7.24(3)(c)1: Table 1.and manufacturer's guidance; or c. for a third-party certified system, all terms and conditions of the third-party certification in accordance with 310 CMR 7.24(3)(c)1.
	5. In accordance with 310 CMR 7.24(3)(d)2., UMass-Amherst shall visually inspect the Stage I System once every seven days to determine that the system and its components are unbroken, correctly installed and functioning. Each visual inspection shall include, but not be limited to, inspection of: coaxial adaptors; dry breaks; fill caps and gaskets; vapor recovery caps and gaskets; spill containment boxes; and drain valves and pressure vent valves: a. Visual inspections shall be performed only by a person who is trained to operate and maintain the Stage I system pursuant to the applicable manufacturers' guidance.; and
	6. In accordance with 310 CMR 7.24(3)(e)10., any owner/operator of a motor vehicle fuel dispensing facility upon written notice from the Department, shall perform such compliance tests as the Department determines necessary to demonstrate the Stage I system is installed and maintained in accordance with the applicable Executive Orders and manufacturer's guidance and shall submit the results to the Department within 14 days of the performance of the tests.
	7. In accordance with 310 CMR 7.24(3)(e)11., Compliance tests performed to meet the requirements of 310 CMR 7.24(3)(e)(1) shall be performed only by a compliance testing company that has submitted a Compliance Testing Company Notification to the Department as required by 310 CMR 7.24(3)(h)1.

Table 4b

EU	Monitoring and Testing Requirements
EU 15a EU 15b EU 16a EU 16b	**EMISSION TESTING** 8. In accordance with MassDEP Approval #1-B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13) and EPA PSD Permit No.050-026-MA11 (9/24/08; Rev. 1 – 12/19/2013), ensure that all emissions testing is conducted in accordance with MassDEP guidelines and in accordance with the USEPA test methods as specified in the 40 CFR Part 60, Appendix A, 40 CFR Part 60 Subpart KKKK (turbines) and 40 CFR Part 60 Subpart Db (boilers), and 40 CFR Part 60 Subpart KKKK (duct burner), or by a methodology approved by MassDEP. All ammonia compliance stack testing shall be conducted in accordance with USEPA Conditional Test Method 27 or an equivalent test method approved by the MassDEP and/or USEPA.
	OPACITY MONITORING 9. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13) and 310 CMR 7.04(2), install, calibrate, operate, and maintain a Data Acquisition and Handling System(s) (DAHS) and opacity monitor to continuously monitor and record opacity from the subject emission unit stack(s).
	10. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), equip the opacity monitor with audible and visible alarms which activate when opacity exceeds the limits established herein.
	11. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), operate the opacity monitor at all times the subject emission unit is operating, except for periods of calibration checks, zero and span adjustments, and preventative maintenance.
	12. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), obtain and record emission data from each opacity monitor (except for periods of calibration checks, zero and span adjustments, and preventative maintenance) as follows: a. For at least 75% of the operating days[(1)] in any calendar month, capture opacity data for at least 75% of the operating hours[(2)] on those operating days(s). b. Capture opacity data for at least 95% of the operating hours [(2)] that the CTG or package boiler operates in each calendar quarter.
	13. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), maintain on-site for the opacity monitor an adequate supply of spare parts to maintain the on-line availability and data capture requirements contained herein.
	14. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), use and maintain the opacity monitor as a "direct compliance" monitor to measure compliance with the opacity limit contained herein. A "direct compliance" monitor generates data that legally documents the compliance status of a source. The MassDEP may also use the opacity monitor or any credible evidence in its determination of compliance with the limits and conditions specified in this Approval.
	15. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), ensure that the opacity monitor equipment complies with MassDEP approved performance and location specifications, and conforms with the USEPA monitoring specifications in 40 CFR Part 60.
	TEMPERATURE MONITORING 16. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), install, calibrate, operate and maintain a temperature monitoring system to continuously monitor and record the inlet temperatures to the SCR and CO catalysts for the CTG/HRSG and the boilers.
	17. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), equip each temperature monitoring system with audible and visible alarms which activate when these temperatures deviate from normal operating temperatures established during the initial compliance testing as listed in the SOMP for this equipment.
	18. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), operate all temperature monitoring equipment at all times the CTG or a boiler is operating, except for periods of calibration checks, zero and span adjustments, and preventative maintenance.

Table 4c

EU	Monitoring and Testing Requirements
EU 15a EU 15b EU 16a EU 16b	19. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), obtain and record temperature data from each temperature monitor specified herein (except for periods of calibration checks, zero and span adjustments, and preventative maintenance) as follows: a. For at least 75% of the operating days(1) in any calendar month, capture temperature monitor data for at least 75% of the operating hours(2) on those operating days; b. Capture temperature monitor data for at least 95% of the operating hours(2) that the CTG or package boiler operates in each calendar quarter.
	20. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), maintain on-site for the temperature monitoring equipment an adequate supply of spare parts to maintain the on-line availability and data capture requirements contained herein.
	21. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), ensure that all temperature monitors and recording equipment comply with MassDEP approved performance and location specifics.
	CEMS MONITORING 22. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), install, calibrate, operate, and maintain a data acquisition and handling system(s) (DAHS) and stack CEMS to continuously monitor and record flue gas emissions of NO_X, CO, NH_3, and diluent gas from the subject emission unit stack.
	23. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), equip each CEMS with audible and visible alarms which activate when emissions exceed the limits established herein.
	24. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), operate all CEMs at all times the subject emission unit is operating, except for periods of CEMs calibration checks, zero and span adjustments, and preventative maintenance.
	25. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), obtain and record emission data from each CEMs (except for periods of calibration checks, zero and span adjustments, and preventative maintenance) as follows: a. For at least 75% of the operating days(1) in any calendar month, capture CEM data for at least 75% of the operating hours(2) on those operating day(s); b. Capture CEM data for at least 95% of the operating hours(2) that the CTG or package boiler operates in each calendar quarter.
	26. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), maintain on-site for the CEMs equipment an adequate supply of spare parts to maintain the on-line availability and data capture requirements contained herein.
	27. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), use and maintain all its CEMs systems as "direct compliance" monitors to measure compliance with the emission limits contained herein. "Direct-compliance" monitors generate data that legally documents the compliance status of a source. The MassDEP may also use the CEMs or any credible evidence in its determination of compliance with the limits and conditions specified in this Approval.
	28. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), ensure that the CEMs equipment complies with MassDEP approved performance and location specifications, and conforms with the USEPA monitoring specifications specified in 40 CFR Part 60.
	29. In accordance with 310 CMR 7.00 Appendix C(9), install, operate and maintain a NO_X differential CEMs for ammonia to calculate ammonia emissions. The CEMS shall satisfy the requirements of Performance Specification 2 of 40 CFR Part 60, Appendix A and Appendix F, but will also be considered passing under Performance Specification 4 if the average difference between the CEMs and reference method values plus the 2.5 percent confidence coefficient does not exceed 5.0 ppm.

Table 4d	
EU	**Monitoring and Testing Requirements**
EU 16a EU 16b	30. In accordance with 310 CMR 7.04(4)(a), ensure that each unit is inspected and tested in accordance with manufacturers recommendations and tested for efficient operation at least once in each calendar year. The results of said inspection, maintenance, and testing and the date upon which it was performed shall be recorded and posted conspicuously on or near the facility.
	31. In accordance with 40 CFR 63 Subpart JJJJJJ and §63.11214, ensure that a biennial tune-up of the boilers is conducted in accordance with §63.11223(b).
	32. In accordance with 40 CFR 63 Subpart JJJJJJ and §63.11223(b)(7), ensure that, if the boiler is not operating on the required date for a tune-up, the tune-up is conducted within one week of startup.
	33. In accordance with 40 CFR 63 Subpart JJJJJJ and §63.11223(a), ensure that each subsequent biennial tune-up is conducted no more than 25 months after the previous tune-up.
EU 17	34. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), monitor the hours of operation for the engine to ensure its operation does not exceed 300 hours per rolling 12-month period.
	35. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), monitor the circumstances of engine operation to ensure it only operates during: a. The normal maintenance and testing procedure as recommended by the manufacturer and/or National Fire Protection Association requirements, and b. Periods of 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.
	36. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), monitor the circumstances of engine operation to ensure it operates only 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 Massachusetts in response to unusually low frequency, equipment overload, capacity or energy deficiency, unacceptable voltage levels, or other regulatory conditions.
EU 18a EU 18b	37. In accordance with 310 CMR 7.26(42)(e)2., MassDEP may require emission or other monitoring to assure compliance with the requirements of 310 CMR 7.26(42).
	38. In accordance with 310 CMR 7.26(42)(d)1.c, ensure that a non-turnback hour counter is installed, operated and maintained in good working order on each engine.
	39. In accordance with 310 CMR 7.26(42)(e)3., ensure any testing when required shall comply with the following: a. Tests to certify compliance with emission limitations must be performed in accordance with USEPA Reference Methods, California Air Resource Board Methods approved by USEPA, or equivalent methods as approved by MassDEP and USEPA. b. Particulate matter from reciprocating engines using liquid fuel shall be determined using Method 8178 D2 of the International Organization for Standardization. c. MassDEP may require emission or other testing to assure compliance with the emission limitations or fuel requirements.

Table 4e	
EU	**Monitoring and Testing Requirements**
EU 19	40. In accordance with MassDEP Approval #WE-12-014 (7/30/12) and 310 CMR 7.26(42)(e)2., conduct emission testing or conduct other monitoring as required by MassDEP to assure compliance with the requirements of 310 CMR 7.26(42).
	41. In accordance with MassDEP Approval #WE-12-014 (7/30/12) and 310 CMR 7.26(42)(d)1., and 40 CFR §60.4209 (a), ensure that a non-turnback hour counter is installed, operated and maintained in good working order on each engine.
	42. In accordance with MassDEP Approval #WE-12-014 (7/30/12), monitor the hours of operation for each engine to ensure that each engine is not operated more than 188 hours per 12-month period.
	43. In accordance with MassDEP Approval #WE-12-014 (7/30/12) and 310 CMR 7.26(42)(e)3., ensure that any testing required by MassDEP shall comply with the following: a. Tests to certify compliance with emission limitations must be performed in accordance with USEPA reference Methods, California Air Resources Board Methods approved by USEPA, or equivalent methods as approved by MassDEP and/or USEPA. b. Particulate matter from reciprocating engines using liquid fuel shall be determined using Method 8178 D2 of the International Organization for Standardization. c. MassDEP may require emission or other testing to assure compliance with the emission limitations or fuel requirements.
	44. In accordance with MassDEP Approval #WE-12-014 (7/30/12), monitor fuel oil purchases such that only fuel oil containing no greater than 0.0015 sulfur percent by weight is purchased for use in [each] unit.
	45. In accordance with MassDEP Approval #WE-12-014 (7/30/12), monitor sulfur content of each new shipment of fuel oil received. Sulfur content of the fuel can be demonstrated through fuel analysis. The analysis of sulfur content of the fuel shall be in accordance with the applicable American Society for Testing Materials (ASTM) test methods or any other method approved by the MassDEP and USEPA. Fuel sulfur information may be provided by fuel suppliers.
EU 51	46. EU 51 shall be equipped with instrumentation which shall be maintained and operated to accurately measure the quantity of each fuel combusted in EU 51 so that fuel usage can be monitored on a monthly and consecutive 12-month basis.
	47. Pursuant to 40 CFR 60.45c(a), the Permittee shall conduct an initial performance test for opacity while firing ULSD as required under 40 CFR 60.8 and shall conduct subsequent performance tests as requested by the MassDEP and USEPA.
	48. Pursuant to 40 CFR 60.45c(a)(8), the Permittee shall use Method 9 of appendix A-4 of 40 CFR Part 60 for determining the opacity of stack emissions while firing ULSD.
	49. Pursuant to 40 CFR 60.47c(a), the Permittee shall conduct a performance test using Method 9 of appendix A-4 of 40 CFR Part 60 and the procedures in 40 CFR 60.11 to demonstrate compliance with the applicable opacity limit while firing ULSD within 180 days after initial startup of EU 51. The observation period for Method 9 of appendix A-4 of 40 CFR Part 60 performance tests may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation.

Table 4f

EU	Monitoring and Testing Requirements
EU 51	50. Pursuant to 40 CFR 60.47c(a)(1), the Permittee shall conduct subsequent Method 9 of appendix A-4 of 40 CFR Part 60 performance tests using the procedures in paragraph (a) of 40 CFR 60.47c, while firing ULSD and renewable fuels and petroleum products meeting ASTM D975-20 Grade Nos. 1-D S15 or 2-D S15, according to the applicable schedule in 40 CFR 60.47c(a)(1)(i) through (a)(1)(iv), and as listed below, as determined by the most recent Method 9 of appendix A-4 of 40 CFR Part 60 performance test results. a. If no visible emissions are observed, a subsequent Method 9 of appendix A-4 of 40 CFR 60 performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard (pursuant to 40 CFR Part 60 Subpart Dc) is combusted, whichever is later; b. If visible emissions are observed but the maximum 6-minute average opacity is less than or equal to 5 percent, a subsequent Method 9 of appendix A-4 of 40 CFR Part 60 performance test must be completed within 6 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard (pursuant to 40 CFR Part 60 Dc) is combusted, whichever is later; c. If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 of appendix A-4 of 40 CFR Part 60 performance test must be completed within 3 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard (pursuant to 40 CFR 60 Subpart Dc) is combusted, whichever is later; or d. If the maximum 6-minute average opacity is greater than 10 percent, a subsequent Method 9 of appendix A-4 of 40 CFR Part 60 performance test must be completed within 45 calendar days from the date that the most recent performance test was conducted. As an alternative to performing subsequent Method 9 performance tests, the Permittee may choose to comply with 40 CFR §60.47c(a)(2) and/or (a)(3) upon written request to the Western Region of MassDEP.
	51. Pursuant to 40 CFR 60.47c(f)(3), the Permittee shall operate EU 51 according to a written site-specific monitoring plan approved by the permitting authority. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard. For testing performed as part of this site-specific monitoring plan, the permitting authority may require as an alternative to the notification and reporting requirements specified in 40 CFR Part 60.8 and 60.11 that the Permittee submit any deviations with the excess emission report required under 40 CFR Part 60.48c(c).
	52. The Permittee shall monitor fuel oil purchases such that only fuel oil containing a sulfur content no greater than 0.0015 percent by weight is purchased for use in EU 51.
	53. The Permittee shall monitor the sulfur content of each new shipment of fuel oil received. Sulfur content of the fuel can be demonstrated through fuel analysis. The analysis of sulfur content of the fuel shall be in accordance with the applicable American Society for Testing Materials (ASTM) test methods or any other method approved by the MassDEP and USEPA. Fuel sulfur information may be provided by fuel suppliers
	54. In accordance with 310 CMR 7.04(4)(a), the Permittee shall inspect and maintain each boiler in accordance with the manufacturer's recommendations and test it for efficient operation at least once in each calendar year
	55. Pursuant to 40 CFR 63.11214(b) and 40 CFR 63.11210(g), the Permittee shall complete the 5-year tune-up as specified in 40 CFR 63.11223 no later than 61 months after the initial startup of EU 51.
	56. Pursuant to 40 CFR 63.11223(a), the Permittee shall conduct a performance tune-up according to 40 CFR 63.11223(b). The Permittee shall conduct the tune-up while burning the type of fuel that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up.

Table 4g

EU	Monitoring and Testing Requirements
EU 51	57. Pursuant to 40 CFR 63.11223(c), the Permittee shall conduct a tune-up of the boiler every 5 years as specified in 40 CFR 63.11223(b)(1) through (7). Each 5-year tune-up shall be conducted no more than 61 months after the previous tune-up. For a new boiler with an oxygen trim system, the first 5-year tune-up shall be no later than 61 months after the initial startup. You may delay the burner inspection specified in 40 CFR 63.11223(b)(1) and inspection of the system controlling the air-to-fuel ratio specified in 40 CFR 63.11223(b)(3) until the next scheduled unit shutdown, but you shall inspect each burner and system controlling the air-to-fuel ratio at least once every 72 months.
	58. Pursuant to 40 CFR 63.11223(b)(1) through (5) and (7), the Permittee shall: a. As applicable, inspect the burner and clean or replace any component of the burner as necessary. b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications if available. c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly. d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject. e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. f. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup.
Facility-wide	59. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), ensure that the facility is operated and maintained such that at all times: a. No Condition of air pollution will be caused by emissions of sound as provided in 310 CMR 7.10; b. No sound emissions resulting in noise will occur as provided in 310 CMR 7.10 and the MassDEP's Policy 90-001 other than approved herein; and c. Sound emissions from the facility will not exceed the levels set forth in Table A. Locations referenced in Table A are: 1-Northern Residences along North Pleasant Street, 2-Site Property Boundary, 3-University Baseball field/Mullins Center, 4-University Southwest Dormitories (Southeast of Site) 5-Nearest Western Residences along Stockbridge Street, 6-Additional Western Residences along Roosevelt Street, and 7-Easternmost End of Stockbridge Street **[State Only]**

Table A

A-Weighted Sound Level (dBA)	Location 1	Location 2	Location 3	Location 4	Location 5	Location 6	Location 7
Lowest Measured Ambient Noise Level (L90)	38.1	43.2	43.6	45.0	38.9	34.2	39.4
Predicted Noise Level from New Equipment (LEQ)	28.0	51.1	43.2	28.9	35.4	29.5	39.4
Future Projected Ambient Noise Level	38.5	51.8	46.4	45.1	40.5	35.5	42.4
Broadband (A-Weighted) Ambient Increase	+0.4	+8.6	+2.8	+0.1	+1.6	+1.3	+3.0

Table 4h

EU	Monitoring and Testing Requirements
Facility-wide	60. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), the MassDEP reserves the right to require additional measurement periods, locations, or events if in the opinion of the MassDEP such additional measurements are necessary to determine compliance with the Air Pollution Control Regulations. **[State Only]**
	61. In accordance with 310 CMR 7.00 Appendix C(9), monitor sulfur content of each new shipment of ULSD oil received. Compliance with % sulfur-in-fuel requirement can be demonstrated through testing (testing certification) or by maintaining a shipping receipt from the fuel supplier (shipping receipt certification). The testing certification or shipping receipt certification of % sulfur-in-fuel shall document that sulfur testing has been done in accordance with the applicable ASTM test methods (D4294-90), or any other method approved by the MassDEP and/or USEPA.
	62. In accordance with 310 CMR 7.13, conduct stack testing, upon written request of the MassDEP, for any air containment for which the MassDEP has determined testing is necessary, to ascertain compliance with the MassDEP's regulations or design approval provisos. All such testing shall be conducted in accordance with 310 CMR 7.13(1) and (2), and in accordance with the applicable procedures specified in 40 CFR 60 Appendix A or other method(s) if approved by the MassDEP and USEPA.
	63. Ensure that stack testing is performed in accordance with 310 CMR 7.13, and 40 CFR Part 60, Appendix A (Method 7 for oxides of nitrogen (NO_X), Method 6 for sulfur dioxide (SO_2), Method 10 for carbon monoxide (CO), Methods 1 to 5 for Particulate Matter (PM), Method 3A for oxygen (O_2), Method 9 for opacity, or any other test method approved by the MassDEP or USEPA), Prior to stack testing, appropriate testing ports shall be constructed so as to accommodate the requirements as stipulated in 40 CFR Part 60, Appendix A.
	64. Monitor operations such that information may be compiled for the annual preparation of a Source Registration/Emission Statement Form as required by 310 CMR 7.12.
	65. 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)**

Table 4 Key*:*

EU = Emission Unit
CFR = Code of Federal Regulations
CMR = Code of Massachusetts Regulations
CO = Carbon Monoxide
CO_2 = Carbon Dioxide
CTG = Combustion Turbine Gas
CEMS = Continuous Emissions Monitoring System
PM = Total Particulate Matter
lbs/MMBtu = pounds per Million British thermal units
ASTM = American Society for Testing Materials
SF6 = Sulfur Hexafluoride
TPY = Tons per consecutive12-month period [2]
SOMP = Specific Operating and Maintenance Procedures
ULSD = Ultra-low Sulfur Distillate oil
% = percent
NO_x = Nitrogen Oxides
NH_3 = Ammonia
SO_2 = Sulfur Dioxide
VOC = Volatile Organic Compounds
HAPs (total) = Total Hazardous Air Pollutants.
HRSG = Heat Recovery Steam Generator
SCR = Selective Catalytic Reduction
ppm = Parts per Million
lbs/hr = Pounds per Hour
dba = Decibels A-Weighted Scale
Leq =
L90 =
USEPA = United States Environmental Protection Agency
≤ = less than or equal to

Table 4 Foot Notes*:*
(1) an operating day is any calendar day an emission unit operates for any length of time at any load.
(2) an operating hour is any hour or part of an hour an emission unit operates at any load.

Table 5a

EU	Record Keeping Requirements
EU 8	1. In accordance with 310 CMR 7.18(8)(g), prepare and maintain daily records sufficient to demonstrate compliance consistent with and instantaneous averaging time as stated in 310 CMR 7.18(2)(a). Such records shall include, but are not limited to: a. identity, quantity, formulation, and density of solvent(s) used; b. quantity, formulation, and density of all waste solvent(s) generated; c. actual operational and performance characteristics of the degreaser and any appurtenant emissions capture and control equipment, if applicable, and d. any other requirements specified by the MassDEP in any approval(s) and/or order(s) issued to the operator.
EU 8 EU 9 EU 12	2. In accordance with 310 CMR 7.03(6), establish and maintain a recordkeeping system on-site and in sufficient detail to document the date of construction, substantial reconstruction or alteration and that the respective emission rates pursuant to 310 CMR 7.03 are not exceeded.
EU 9	3. In accordance with 310 CMR 7.03(16), prepare and maintain sufficient records to demonstrate compliance for each calendar month. Such records shall include, but are not limited to: a. For each coating, as applied: i. Gallons of coating used; ii. Coating density (pounds per gallon) iii. Pounds of VOC per gallon of coating; iv. Pounds of solids per gallon of coating; v. Pounds of water per gallon of coating; vi. Pounds of other non-VOC liquid per gallon of coating; vii. Pounds of VOC per gallon of solids as applied; b. Gallons of exempt/non-compliance coatings used; c. Gallons of cleanup solution and pounds VOC per gallon; and d. Maintenance records of filter pad replacement and disposal.
	4. In accordance with 310 CMR 7.03(16)(l), as an alternative to 3) a. and 3)b. above, maintain purchase records of coating and surface preparation products on a monthly basis. The purchase records shall be summarized and include coating category, coating or coating component, and surface preparation product as identified on the container, the quantity of each coating or component, and surface preparation product, and the VOC content (in pounds per gallon) of each coating and surface preparation product, after mixing according to the manufacturer's instructions.
	5. In accordance with 40 CFR 63.11177(a) and as specified therein, ensure that records are maintained that show each painter has completed the training specified in §63.11173(f), with the date the initial training and the most recent training was completed, and is certified.
	6. In accordance with 40 CFR 63.11177(b) and as specified therein, ensure that documentation is maintained of the filter efficiency of any spray booth exhaust filter material, according to the procedure in §63.11173(e)(3)(i).
	7. In accordance with 40 CFR 63.11177(c) and as specified therein, ensure that documentation is maintained from the spray gun manufacturer that each spray gun with a cup capacity equal to or greater than 3.0 fluid ounces (89 cc) that does not meet the definition of an HVLP spray gun, electrostatic application, airless spray gun, or assisted airless spray gun, has been determined by MassDEP or USEPA to achieve a transfer efficiency equivalent to that of an HVLP spray gun, according to the procedure in §63.11173(e)(4).
	8. In accordance with 40 CFR 63.11177(d) and as specified therein, ensure that copies are maintained of any notification submitted as required by §63.11175 and that copies are maintained of any report submitted as required by §63.11176.

Table 5b

EU	Record Keeping Requirements
EU 9	9. In accordance with 40 CFR 63.11177(g) and as specified therein, ensure that records are maintained of any deviation from the requirements in §§ 63.11173, 63.11174, 63.11175, or 63.11176. These records must include the date and time period of the deviation, and a description of the nature of the deviation and the actions taken to direct the deviation.
	10. In accordance with 40 CFR 63.11177(h) and as specified therein, ensure that records are maintained of any assessments of source compliance performed in support of the initial notification, notification of compliance status, or annual notification of changes report.
	11. In accordance with 40 CFR 63.11178(a), maintain copies of the records specified in §63.11177 for a period of at least five years after the date of each record. Copies of records must be kept on site and in a printed or electronic form that is readily accessible for inspection for at least the first two years after their date and may be kept off-site after that two year period.
EU 12	12. In accordance with 310 CMR 7.24(3)(d)2.b, a current record of all persons trained shall be maintained on site, including the date training was last received and the trainee's printed name and signature acknowledging receipt of the training.
	13. In accordance with 310 CMR 7.24(3)(d)5, every visual inspection shall be recorded on an inspection checklist that contains, at minimum, the following information: a. The date each inspection was performed and the name and signature of the person who performed the inspection; b. Any Stage I system component determined to be incorrectly installed, non-functioning or broken; c. Whether any incorrectly installed, non-functioning or broken component was immediately repaired or replaced within 30 days, or whether the transfer of motor vehicle fuel into the motor vehicle fuel storage tank was prohibited until the component was repaired or replaced; and d. The date the incorrectly installed, non-functioning or broken component was repaired or replaced.
	14. In accordance with 310 CMR 7.24(3)(d)6, retain on-site in a centralized location in either hard copy or electronic format, the following records: a. All of the visual inspection checklists for the prior rolling 12-month period identifying: i. the date each inspection was performed and the signature of the person who performed the inspection. ii. any Stage I System component determined to be incorrectly installed, non-functioning or broken; iii. whether the identified incorrectly installed, non-functioning or broken component was immediately repaired, or repaired within 30 days, or if the facility stopped receiving deliveries of motor vehicle fuel; and iv. the date the incorrectly installed, non-functioning or broken component was repaired. b. A copy of compliance testing company test results for compliance tests performed during the prior rolling 12-month period. c. A copy of the Stage I system's most recent In-use Compliance Certification in accordance with 310 CMR 7.24(3)(e)4., or, if more recent, a copy of the Stage I system's Installation/Substantial Modification Certification in accordance with 310 CMR 7.24(3)(e)3. d. The date and type of Stage I Routine Maintenance performed in the most recent rolling 12-month period in accordance with 310 CMR 7.24(3)(e)2.a.
	15. In accordance with 310 CMR 7.24(3)(d)7, all records required to be maintained shall be made available to the Department and the USEPA immediately upon request. If requested records cannot be made immediately available, requested records shall be delivered to MassDEP and the USEPA, as applicable, within 7 business days of the initial request.
	16. In accordance with 40 CFR 63.11117(d) have records available within 24 hours of a request by MassDEP or the USEPA to document a gasoline throughput of < 100,000 gallons per calendar month throughput to demonstrate that the > 100,000 gallon per month throughput category is not met.

Table 5c

EU	Record Keeping Requirements
EU 12	17. In accordance with 40 CFR 63.11125(d), records shall be kept as specified below: a. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. b. Records of the actions taken during periods of malfunction to minimize emissions in accordance with §63.11115(a), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
EU 16a EU 16b	18. In accordance with 40 CFR 63 Subpart JJJJJJ and §63.11225(c), ensure that copies are kept of each notification and report that you submitted to comply with Subpart JJJJJJ and all documentation supporting an Initial Notification of Compliance Status that was submitted.
	19. In accordance with 40 CFR 63 Subpart JJJJJJ and §63.11225(c), ensure that records are kept that identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned, and records documenting the fuel type(s) used monthly by each boiler.
EU 17	20. In accordance with MassDEP Approval #1-B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13) and EPA PSD Permit No. 050-026-MA11 (9/24/08; Rev. 1-12/19/2013), establish a recordkeeping system of sufficient detail that documents that the emergency engine does not exceed 300 hour of operation each per rolling 12-month period.
EU 18a EU 18b	21. In accordance with 310 CMR 7.26(42)(f), maintain the records described in 310 CMR 7.26(42)(f)1. through 4. As specified below. Such records shall be maintained on-site and shall be made available to MassDEP or its designee upon request. The owner or operator shall certify that records are accurate and true in accordance with 310 CMR 7.01(2)(a) through (c). a. Information on equipment type, make and model, and rated power output; and b. A log of operations, including date, time and duration of operation and reason for each start per 310 CMR 7.26(42)(d)1., fuel type and supplier; c. Purchase orders, invoices, and other documents to substantiate information in the log; and d. Copies of all certificates and documents from the manufacturer related to certificates.
EU 18b	22. In accordance with 40 CFR Part 60, Subpart JJJJ §60.4245(a), maintain records of unit maintenance and certifications with applicable 40 CFR Part 60, Subpart JJJJ standards.
EU 19	23. In accordance with 310 CMR 7.26(42)(f), maintain the records described in 310 CMR 7.26(42)(f)1. Through 4. As specified below. Such records shall be maintained on-site and shall be made available to MassDEP or its designee upon request. The owner or operator shall certify that records are accurate and true in accordance with 310 CMR 7.01(2)(a) through (c). a. Information on equipment type, make and model, and rated power output; and b. A log of operations, including date, time and duration of operation and reason for each start per 310 CMR 7.26(42)(d)1., fuel type and supplier; c. Purchase orders, invoices, and other documents to substantiate information in the log; and d. Copies of all certificates and documents from the manufacturer related to certificates.
	24. In accordance with MassDEP Approval #WE-12-014 (7/30/12), maintain oil analysis results used to demonstrate compliance with fuel oil sulfur content requirements.
	25. In accordance with MassDEP Approval #WE-12-014 (7/30/12), maintain adequate records on-site to demonstrate compliance with all operational, production, and emission limits contained in Table 3 of this Operating Permit. Records shall also include the actual emissions of air contaminant(s) emitted for each calendar month and for each consecutive twelve-month period (current month plus prior eleven months). 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 https://www.mass.gov/service-details/massdep-air-quality-forms#report

Table 5d

EU	Record Keeping Requirements
EU 19	26. In accordance with MassDEP Approval # WE-12-014 (7/30/12), maintain records of monitoring and testing as required in Table 4 of this Operating Permit, provisions 38-43 as applicable.
	27. In accordance with MassDEP Approval # WE-12-014 (7/30/12), maintain a copy on-site of the Approval, the underlying Application and the most up-to-date SOMP.
	28. In accordance with MassDEP Approval # WE-12-014 (7/30/12), maintain a record of routine maintenance activities performed on the engines 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.
	29. In accordance with MassDEP Approval #WE-12-014 (7/30/12), maintain a record of all malfunctions affecting air contaminant emission rates on the engines 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.
	30. In accordance with MassDEP Approval #WE-12-014 (7/30/12), establish a recordkeeping system of sufficient detail that documents that each emergency engine does not exceed 188 hours operation each per rolling 12-month period.
EU 20	31. In accordance with 310 CMR 7.03(6), establish a recordkeeping system of sufficient detail that documents that each emergency engine does not exceed 100 hours of operation per rolling 12-month period.
EU 15a EU 15b EU 16a EU 16b EU 17 EU 18a EU 18b	32. In accordance with 310 CMR 7.00 Appendix C(10), maintain records of the yearly boilers tune-ups required herein.
	33. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), maintain a log to record problems, upsets or failures associated with the emission control system, CEMs, temperature monitors, or ammonia handling system.
	34. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), and EPA PSD Permit No. 050-026-MA11 (9/24/08; Rev. 1 – 12/19/2013), maintain records of all periods of excess emissions, even if attributable to an emergency/malfunction or startup/shutdown, quantify these emissions, and include them in the determination of annual emissions.
	35. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), maintain on-site permanent records of all measurements, CEMs output, performance evaluations, calibration checks, maintenance, and adjustments for each CEMs and temperature monitoring system device, and make these records available to MassDEP and the USEPA on request.
	36. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), record for each unit on a daily basis the type(s) of fuel burned, heat content of each fuel, total heating value of the fuel consumed, and the actual emission rate for each pollutant for emission units demonstrating compliance with CEMs.
	37. In accordance with EPA PSD Permit No. 050-026-MA11 (9/24/08; Rev. 1 – 12/19/2013) and MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), maintain records of the testing certification or shipping receipt certification used to certify that each new shipment of ULSD oil fuel complies with the percent sulfur-in-fuel requirements specified herein.
	38. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), maintain for the life of the facility all operating and monitoring records and logs. UMass-Amherst shall make available to the MassDEP for inspection upon request the five most recent years' data.

Table 5e

EU	Record Keeping Requirements
EU 51	39. Pursuant to 40 CFR 60.48c(c), the Permittee shall maintain records according to the requirements specified in 40 CFR 60.48c(c)(1)(i) through (iii) and as listed below: a. Dates and time intervals of all opacity observation periods; b. Name, affiliation and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and c. Copies of all visible emission observer opacity field data sheets.
	40. Pursuant to 40 CFR 60.45c(d), the Permittee shall follow the applicable procedures under 40 CFR 60.48c(f) to demonstrate compliance under 40 CFR 60.43c(e)(4).
	41. Pursuant to 40 CFR 60.48c(e), the Permittee shall keep records of the information contained in 40 CFR 60.48c(e)(1) through (11), as applicable.
	42. Pursuant to 40 CFR 60.48c(f)(1), the record of fuel supplier certification, as required by 40 CFR 60.48c(e)(11) and 60.45c(d), shall include the following: a. The name of the oil supplier; b. A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 40 CFR 60.41c; and c. The sulfur content or maximum sulfur content of the oil.
	43. Pursuant to 40 CFR 60.48c(g)(2), the Permittee shall record and maintain records of the amount of each fuel combusted during each calendar month.
	44. Pursuant to 310 CMR 7.04(4)(a), the results of the calendar year inspection, maintenance and testing and the date upon which it was performed shall be recorded and posted conspicuously on or near the permitted equipment.
	45. Pursuant to 40 CFR 63.11223(a), the Permittee shall keep records as required in 40 CFR 63.11225(c), as applicable.
	46. Pursuant to 40 CFR 63.11223(b)(6)(i) through (iii), the Permittee shall maintain on-site a report containing the information in paragraphs 40 CFR 63.1123(b)(6)(i) through (iii) and as listed below: a. The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler. b. A description of any corrective actions taken as a part of the tune-up of the boiler. c. The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.
	47. Pursuant to 40 CFR 63.11225(c), the Permittee shall maintain the records specified in 40 CFR 63.11225(c)(1) through (5).
	48. Pursuant to 40 CFR 63.11225(d), the Permittee shall keep records in a form suitable and readily available for expeditious review. The Permittee shall keep each record required by 40 CFR Part 63 Subpart JJJJJJ for 5 years following the date of each recorded action.
	49. The Permittee shall maintain adequate records on-site to demonstrate compliance status with all operational, production, and emission limits contained in Table 3g above. Records shall also include the actual emissions of air contaminant(s) emitted for each calendar month and for each consecutive twelve-month period (current month plus prior eleven months). These records shall be compiled no later than the 15th day following each month. An electronic version of a MassDEP approved record keeping form, in Microsoft Excel format, may be downloaded at https://www.mass.gov/guides/massdep-facility-wide-emission-restrictions-caps-reporting#WorkbookforReportingOn-SiteRecordKeeping.
	50. The Permittee shall maintain records of monitoring and testing as required by Tables 4e to 4g.
	51. The Permittee shall maintain a copy of this Plan Approval, underlying Application and the most up-to-date SOMP for EU 51 approved herein on-site.

Table 5f	
EU	**Record Keeping Requirements**
EU 51	52. The Permittee shall maintain a record of routine maintenance activities performed on EU 51 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
	53. The Permittee shall maintain a record of all malfunctions affecting air contaminant emission rates on EU 51 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
Facility-wide	54. In accordance with 310 CMR 7.00 Appendix C(10)(b), maintain records of all monitoring data and supporting information on-site for a period of at least five years from the date of the monitoring sample, measurement, report or initial operating permit application.
	55. In accordance with 310 CMR 7.12, maintain the records required to determine the nature and amounts of emissions from the facility.
	56. In accordance with 310 CMR 7.12(3)(c), retain copies of Source Registration and other information supplied to the MassDEP to comply with 310 CMR 7.12 for five years from the date of submittal.
	57. 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)**.

Table 5 Key

EU = Emission Unit
CEMS = Continuous Emission Monitoring System
CFR = Code of Federal Regulations
CMR = Code of Massachusetts Regulations
HVLP = High Velocity Low Pressure
≥ = Greater than or Equal To
cc = Cubic Centimeter
PCD = Pollution Control Device
PSD = Prevention of Significant Deterioration
SOMP = Specific Operating and Maintenance Plan
VOC = Volatile Organic Compounds
ULSD = Ultra-low Sulfur Diesel
USEPA = United States Environmental Protection Agency

Table 6a	
EU	**Reporting Requirements**
EU 9	1. In accordance with 40 CFR 63.11176(a) and as specified therein, ensure that reports are submitted in each calendar year in which information previously submitted in either the initial notification, Notification of Compliance, or a previous annual notification of changes report has changed. The annual notification of changes report must be submitted to MassDEP and USEPA prior to March 1 of each calendar year when reportable changes have occurred.
	2. In accordance with 310 CMR 7.13(1) and 310 CMR 7.13(2), if an when the MassDEP has determined that stack testing is necessary to ascertain compliance with MassDEP's regulations or design approval provisions, cause such stack testing to be summarized, analyzed, and submitted to the MassDEP within such time frame as agreed to in the approved test protocol.
EU 12	3. In accordance with 310 CMR 7.24(3)(e)4.a, any owner/operator of a fuel dispensing facility shall annually submit to the Department within 30 days of performing and passing all applicable compliance tests a fully completed and signed In-use Compliance Certification on a form provided by the Department
	4. In accordance with 310 CMR 7.24(3)(e)4.b, any owner/operator of a motor vehicle fuel dispensing facility shall attest to the following: a. The Stage I system is operated and maintained in accordance with the applicable Executive Orders and manufacturers' guidance; and b. All applicable compliance tests listed in 310 CMR 7.24(3)(e)1. were performed and passed.
	5. In accordance with 310 CMR 7.24(3)(e)5.a, any owner/operator of a motor vehicle fuel dispensing facility who submits Annual In-use Compliance Certifications for two consecutive years in compliance with 310 CMR 7.24(3)(e)4. in which all applicable In-use compliance tests were passed on the first try, as certified pursuant to 310 CMR 7.24(3)(h)8., may elect to submit to the Department and Alternative Annual In-use Compliance Certification on a form provided by the Department.
	6. In accordance with 40 CFR 63.11126(b), each owner or operator of an affected source under this subpart shall report, by March 15 of each year, the number, duration, and a brief description of each type of malfunction which occurred during the previous calendar year and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.11115(a), including actions taken to correct a malfunction. No report is necessary for a calendar year in which no malfunctions occurred.
EU 8 EU 9 EU 12	7. In accordance with 310 CMR 7.03(5), report to the MassDEP any construction, substantial reconstruction or alteration, as described in 310 CMR 7.03, on the next required source registration.
EU 16a EU 16b	8. In accordance with 40 CFR 63 Subpart JJJJJJ and §63.11225(a)(4)(i), ensure that a signed statement in the Notification of Compliance Status report is submitted that indicates that the boiler tune-up was conducted.
	9. In accordance with 40 CFR 63 Subpart JJJJJJ and §63.11225(b), ensure that, by March 1 of each year a biennial compliance report is prepared (and submitted to the delegated authority upon request) for the previous calendar year containing the company name and address, and a statement by a responsible official, with the official's name, title, phone number, e-mail address, and signature, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with the boiler tune-up requirements.
EU 18a EU 18b	10. In accordance with 310 CMR 7.26(42)(f), make available the log(s) and records established under 310 CMR 7.26(42)(f) to MassDEP or its designee upon request. The owner/ operator shall certify that the log is accurate and true in accordance with 310 CMR 7.01(2).
EU 19	11. In accordance with 310 CMR 7.26(42)(f), make available the monthly log(s) and records established under 310 CMR 7.26(42)(f) to MassDEP or its designee upon request. The owner /operator shall certify that the log is accurate and true in accordance with 310 CMR 7.01(2).
EU 20	12. In accordance with 310 CMR 7.03(5), report any construction, substantial reconstruction or alteration, as described in 310 CMR 7.03, to MassDEP on the next required source registration.

Table 6b	
EU	**Reporting Requirements**
EU 51	13. Pursuant to 40 CFR 60.48c(a)(1) and (3) and 40 CFR 60.7(a)(1), the Permittee shall notify the Western Regional Office of MassDEP and the USEPA, in writing, the actual date that construction of EU 51 commenced. This notice shall be postmarked no later than 30 days after such date. This notification shall include: a. The design heat input capacity of EU 51 and identification of fuels to be combusted in EU 51. b. The annual capacity factor at which the Permittee anticipates operating EU 51 based on all fuels fired and based on each individual fuel fired.
	14. The Permittee shall notify the Western Regional Office of MassDEP and the USEPA, in writing, the actual date of initial startup of EU 51. This notice shall be provided to MassDEP and postmarked within 5 days of initial startup. The notice shall be provided to the USEPA in accordance with 40 CFR 60.7(a)(3) and 40 CFR 60.48c(a)(1) and (3).
	15. Pursuant to 40 CFR 60.48c(b), the Permittee shall submit to the Western Regional Office of MassDEP and the USEPA the opacity performance test data from the initial and subsequent performance tests.
	16. Pursuant to 40 CFR 60.48c(c), the Permittee shall submit excess emission reports for any excess opacity emissions from EU 51 that occur during the reporting period.
	17. Pursuant to 40 CFR 60.48c(d) and (e), the Permittee shall submit reports to the MassDEP and USEPA as required under 40 CFR 60.48c(d) including the following information, as applicable: a. Calendar dates covered in the reporting period. b. Each 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period, reasons for any noncompliance with the emission standards; and a description of corrective actions taken. c. If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under 40 CFR 60.48c(f)(1). In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the Permittee that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.
	18. Pursuant to 40 CFR 60.48c(j), the reporting period for the reports required under 40 CFR Part 60 Subpart Dc is each six-month period. All reports shall be submitted to the Western Regional Office of MassDEP and the USEPA and shall be postmarked by the 30th day following the end of the reporting period.
	19. Pursuant to 40 CFR 63.11223(b)(6)(i) through (iii), the Permittee shall maintain on-site and submit, if requested by MassDEP or the USEPA, a report containing the information in paragraphs 40 CFR 63.1123(b)(6)(i) through (iii) and as listed below: a. The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent measured at high fire or typical operating load, before and after the tune-up of the boiler. b. A description of any corrective actions taken as part of the tune-up of the boiler. c. The type and amount of fuel used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.
	20. Pursuant to 40 CFR 63.11225(a)(1) and (2), the Permittee shall submit the notification in 40 CFR 63.9(b)(5)(i) through (iii) that apply to you within 120 days after the source becomes subject to 40 CFR Part 63 Subpart JJJJJJ.

Table 6c	
EU	**Reporting Requirements**
EU 51	21. Pursuant to 40 CFR 63.11225(b), the Permittee shall prepare by March 1, and submit to the MassDEP and USEPA upon request, a 5-year compliance report as specified in 40 CFR 63.11225(b)(1) and (2) and as listed below: a. Company name and address. b. Statement by a responsible official, with the official's name, title, phone number, email address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of 40 CFR Subpart JJJJJJ. Your notification shall include the information contained in 40 CFR 63.11225(b)(2)(i) and (ii), as applicable, and signed by a responsible official.
	22. In accordance with MassDEP Approval #WE-20-001 (05/07/20), the Permittee shall submit all information required over the signature of a "Responsible Official" as defined in 310 CMR 7.00 and shall include the Certification statement as provided in 310 CMR 7.01(2)(c).
Central Heating Plant-Wide	23. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13) and EPA PSD Permit No. 050-026-MA11 (9/24/08; Rev. 1 – 12/19/2013), submit to the MassDEP / USEPA – Region 1 (New England) in an acceptable format, a semi-annual report postmarked by January 30th and July 30th of each year, which minimally contains for the prior calendar 6-month period the following information: a. Reports from the facility CEMs and temperature monitors, containing summary data; and b. For each period of excess emissions or excursions from allowable operating conditions, UMass-Amherst shall list the duration, cause (including whether it is attributable to a malfunction or emergency), the response taken, and the amount of excess emissions. Periods of excess emissions shall include excess emissions that occur during periods of malfunction, emergency, and upsets or failures associated with the emission control system, CEMs or temperature monitors. c. A tabulation of periods of oil use.
Facility-wide	24. In accordance with 310 CMR 7.12, the Permittee shall submit a Source Registration/Emission Statement Form to MassDEP on an annual basis
	25. In accordance with 310 CMR 7.00 Appendix C(10)(c), submit to the MassDEP two compliance summaries, one by January 30 for the time period July – December of the previous calendar year, and the other by July 30 for the time period January – June of the current calendar year. (See Provision 10 in "GENERAL CONDITIONS FOR OPERATING PERMIT")
	26. In accordance with 310 CMR 7.13(1) and 7.13(2), if determined by MassDEP that stack testing is necessary to ascertain compliance with 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.
	27. In accordance with 310 CMR 13(1)(d), submit to MassDEP any stack test result for any air contaminant obtained by stack testing required by the MassDEP within such time as agreed to in the approved test protocol.
	28. In accordance with 310 CMR 7.00 Appendix C(5)(b)9., submit annually a certification that the facility is maintaining the required records to assure the facility is in compliance with the applicable requirements designated in this permit. (See Provision 10 in "GENERAL CONDITIONS FOR OPERATING PERMIT")
	29. In accordance with 310 CMR 7.00 Appendix C(10)(a), submit to the MassDEP any record relevant to this operating permit or to the emissions of any air contaminant from the facility within 30 days of the request by the MassDEP or USEPA
	30. In accordance with 310 CMR 7.00 Appendix C(10)(f), the Permittee shall report to the MassDEP's Regional Bureau of Air and Waste ("BAW") all instances of deviations from permit requirements. (See Provision 25 in "GENERAL CONDITIONS FOR OPERATING PERMIT").

Table 6d	
EU	**Reporting Requirements**
Facility-wide	31. In accordance with General Condition 10 of this Permit, the Permittee shall submit the Annual Compliance report to MassDEP and the USEPA 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)**.

Table 6 Key

EU = Emission Unit
CFR = Code of Federal Regulations
CMR = Code of Massachusetts Regulations
CEMS = Continuous Emission Monitoring System
PCD = Pollution Control Device
PSD = Prevention of Significant Deterioration
USEPA = 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 7.34 – Massachusetts NOX Ozone Season Program	UMass-Amherst is not a listed MassNO_X Facility
40 CFR Part 63 Subpart T - National Emission Standards for Halogenated Solvent Cleaning	Not Applicable
40 CFR Part 64 - Compliance Assurance Monitoring	Facility utilizes a continuous compliance determination method (NO_X/CO CEMS), as defined in 40 CFR 64.1 for monitoring controlled emissions

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 8a

EU	Special Terms and Conditions
EU 8	1. In accordance with 310 CMR 7.18(8)(a), not cause, suffer, allow or permit emissions of volatile organic compounds unless they comply with either 310 CMR 7.18(8)(a)1.-3. as follows: a. The solvent used in a cold cleaning degreaser shall have a vapor pressure that does not exceed 1.0 mmHg measured at 20°C; b. Any leaks shall be repaired immediately, or the degreaser shall be shut down; c. The following requirements shall apply unless the cold cleaning degreaser is sink-like work area with a remote solvent reservoir with an open drain area of less than 100 square centimeters: i. Each cold cleaning degreaser is equipped with a cover that is designed to be easily operated with one hand; ii. Each cold cleaning degreaser is equipped to drain clean parts so that, while draining, the cleaned parts are enclosed for 15-seconds or until dripping ceases, whichever is longer; iii. Each cold cleaning degreaser is designed with: 1. a freeboard ratio of 0.75 or greater; or 2. a water blanket (only if the solvent used is insoluble in and heavier than water); or 3. an equivalent system of air pollution control which has been approved by MassDEP and the USEPA; d. The covers of each cold cleaning degreaser are closed whenever parts are not being handled in the degreaser, or when the degreaser is not in use; and e. The drafts across the top of each cold cleaning degreaser are minimized such that when the cover is open the degreaser is not exposed to drafts greater than 40 meters per minute (1.5 miles per hour) as measured between one and two meters upwind at the same elevation as the tank lip.
EU 9	2. In accordance with 310 CMR 7.03(16) and 310 CMR 7.18(28), operate in accordance with the following requirements: a. The spray guns shall utilize electrostatic spray application or High-Volume Low Pressure (HVLP) spray application and be maintained and operated in accordance with the manufacturer's recommendations; b. The spray booth shall utilize two or more layers of dry fiber mat filter, with a total thickness of at least two inches, that achieves particulate control efficiency of at least 97% by weight. The filter material shall be disposed of in accordance with all applicable DEP regulations; c. The face velocity of air at the filter shall not exceed 200 feet per minute; d. Spray gun cleaning shall be performed inside a totally enclosed gun washer system and any used cleanup solution shall be recirculated, stored, or disposed of in a manner that will minimize evaporation to the atmosphere. Proper storage shall be in a container with a tight fitting cover; e. The stack shall conform to the following criteria: i. The stack shall discharge vertically upwards; ii. The stack shall not have rain protection of a type that restricts the vertical exhaust flow; iii. The stack gas exit velocity shall be greater than 40 feet per second; and iv. The minimum stack exit height shall be 35 feet above the ground or ten feet above roof level. f. Rags used during surface preparation of other solvent cleaning operations, fresh and spent solvent , coatings, and sludge shall be stored in tightly closed containers and disposed of or recycled properly; and g. All spray equipment operators shall receive training and instruction in the proper operation and maintenance of the spray equipment and spray equipment cleaning device.

Table 8b	
EU	**Special Terms and Conditions**
EU 9	3. In accordance with 40 CFR 63.11173(e)(1) and as specified therein, ensure that all painters are certified that to have completed training in the proper spray application of surface coatings and in the proper setup and maintenance of spray equipment. The minimum requirements for training and certification are described in paragraph (f) of this section. The spray application of surface coatings is prohibited by persons who are not certified as having completed the training described in paragraph (f) of this section. The requirements of this paragraph do not apply to the students of an accredited surface coating training program who are under the direct supervision of an instructor who meets the requirements of this paragraph.
	4. In accordance with 40 CFR 63.11173(e)(2) and as specified therein, ensure that all spray-applied coatings are applied in spray booth meeting the requirements of 40 CFR 63.11173(e)(2)(i) (98-percent capture of paint overspray) and meet either the construction and air movement requirements of 40 CFR 63.11173(e)(2)(ii), (e)(2)(iii) or (e)(2)(iv) of this section.
	5. In accordance with 40 CFR 63.11173(e)(3) and as specified therein, ensure that all spray applied coatings are applied with a high volume, low pressure spray gun, electrostatic application, airless spray gun, air-assisted airless spray gun, or an equivalent technology that is demonstrated by the spray gun manufacturer to achieve transfer efficiency comparable to one of the spray gun technologies listed above for comparable operation, and for which written approval has been obtained by the Administrator. The procedure used to demonstrate that spray gun transfer efficiency is equivalent to that of an HVLP spray gun must be equivalent to the California South Coast Air Quality Management District's "Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989" and "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns, September 26, 2002" (incorporated by reference, see §63.14 of subpart A of this part). The requirements of this paragraph do not apply to painting performed by students and instructors at paint training centers.
	6. In accordance with 40 CFR 63.11173(e)(4) and as specified therein, ensure that all paint spray gun cleaning is done so that an atomized mist of spray of gun cleaning solvent and paint residue is not created outside of a container that collects used gun cleaning solvent.
	7. In accordance with 40 CFR 63.11173(f), and as specified therein, ensure that all new and existing personnel, including contract personnel, who spray apply surface coatings, as defined in §63.11180, are trained in the proper application of surface coatings and are certified. The training program must include, at a minimum, the items listed in paragraphs 40 CFR 63.11173(f)(1) through (f)(3).
	8. In accordance with 40 CFR 63.11173(g)(2) and as specified therein, ensure that all painters are trained and certified no later than 180 days after hiring.
	9. In accordance with 40 CFR 63.11173(g)(3) and as specified therein, ensure that all painters receive refresher training that meets the requirements specified in 40 CFR 63.11173(f)(1) – (3) and are recertified every five years.
	10. EU 9 is subject to the requirements of 40 CFR 63.1 – 16, Subpart A "General Provision" [as indicated in Table 1 to Subpart HHHHHH of 40 CFR 63]. Compliance with all applicable provisions therein is required.
EU 12	11. In accordance with 40 CFR 63.11115(a), the Permittee shall, at all times, operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

Table 8c

EU	Special Terms and Conditions
EU 12	12. In accordance with 40 CFR 63.11116(a), not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following: a. Minimize gasoline spills; b. Clean up spills as expeditiously as practicable; c. Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use; d. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.
	13. In accordance with 40 CFR 63.11117(b), the Permittee must only load gasoline into storage tanks by utilizing submerged filling, as defined in §63.11132, and as specified as follows: a. Submerged fill pipes installed on or before November 9, 2006, must be no more than 12-inches from the bottom of the tank. b. Submerged fill pipes installed after November 9, 2006, must be no more than 6-inches from the bottom of the tank. c. Submerged fill pipes not meeting the specifications of paragraphs (a) or (b) above are allowed if the owner or operator can demonstrate that the liquid level in the tank is always above the entire opening of the fill pipe. Documentation providing such a demonstration must be made available for inspection by the Administrator's delegated representative during the course of a site visit. The applicable distances in paragraphs (a) and (b) shall be measured from the point in the opening of the submerged fill pipe that is the greatest distance from the bottom of the storage tank.
	14. EU 12 is subject to the requirements of 40 CFR 63.1 – 16, Subpart A, "General Provision" [as indicated in Table 3 to Subpart CCCCCC of 40 CFR 63]. Compliance with all applicable provisions therein is required.
EU 15a	15. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), burn natural gas in the CTG to the full extent of its availability, except as provided in Provision 14 below.
	16. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), may burn ULSD oil in the CTG (and may burn ULSD oil in excess of the allotment specified herein) if supported by the results of a fuel BACT analysis that is approved by MassDEP in writing.
EU 16a EU 16b	17. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), tune each boiler annually in accordance with procedures contained in EPA 340/1-83-023 "Combustion Efficiency Optimization Manual for Operators of Oil and Gas Fired Boilers" (or equivalent) with the goal of reducing air pollutant emissions, including NO_X and CO, to optimum levels.
	18. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), comply with all applicable NSPS requirements found in 40 CFR Part 60, Subpart Db for each of the boilers.
	19. EU 16a and 16b are subject to the requirements of 40 CFR 63.1 – 16, Subpart A, "General Provision" [as indicated in Table 8 to Subpart JJJJJJ of 40 CFR 63]. Compliance with all applicable provisions therein is required.

Table 8d

EU	Special Terms and Conditions
EU 17	20. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), and EPA PSD Permit No. 050-026-MA11 (9/24/08; Rev. 1 – 12/19/2013), ensure that the sulfur content of oil to be used as fuel in the emergency generator conforms with the then current sulfur limit applied to on-road specification oil as defined in the Code of Federal Regulations (at the time of issuance of this permit defined in 40 CFR § 80.29(a)(i)).
	21. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), ensure that the emergency generator is equipped with an exhaust silencer, if necessary, so that sound emissions will not cause or contribute to a condition of air pollution.
	22. In accordance with MassDEP Approval #1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), ensure that the emergency generator utilizes and exhaust stack that discharges in accordance with specifications provided in the air permit application air quality impact analysis so as to not cause a condition of air pollution (310 CMR 7.01(1)). Exhaust stacks shall be configured to discharge vertically and shall not be equipped with any part or device that restricts the vertical exhaust flow, including but not limited to rain protection devices. Any emission impacts of exhaust stacks upon sensitive receptors including people, windows and doors that open, and building fresh air intakes shall be minimized by employing good air pollution control engineering practices. Such practices include avoiding locations that may be subject to downwash of the exhaust, and installing stacks of sufficient height in locations that will prevent and minimize flue gas impacts upon sensitive receptors. The minimum stack height shall be ten feet above the facility rooftop or the emergency engine enclosure, whichever is higher.
EU 18a EU 18b	23. These units are subject to the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63.6580 and 63.6675 and shall comply with all applicable requirements.
	24. In accordance with 40 CFR 63.6590(c), a new stationary RICE located at an area source of HAP emissions does not have to meet the requirements of 40 CFR Part 63, Subpart ZZZZ and of 40 CFR Part 63, Subpart A by meeting the requirements of 40 CFR 60 Subpart IIII, for compression ignition engines or 40 CFR Part 60 Subpart JJJJ, for spark ignition engines.
	25. In accordance with 310 CMR 7.26(42)(b)1., ensure that all emergency engines installed before March 9, 2018 in accordance with the provisions of 310 CMR 7.26(42) and with a rated power equal to or greater than 37 kW comply with the applicable emission limitations set by the USEPA for non-road engines (40 CFR 89 as in effect October 23, 1998) at the time of installation.
	26. In accordance with 310 CMR 7.26(42)(b)2., ensure that all emergency engines installed after March 9, 2018 in accordance with the provisions of 310 CMR 7.26(42) and with a rated power equal to or greater than 37 kW comply with the applicable emission limitations set by the USEPA in Standards of Performance for New Stationary Sources for emergency compression ignition reciprocating engines under 40 CFR 60 Subpart IIII at the time of installation.
	27. In accordance with 310 CMR 7.26(42)(b)3., the owner/operator of an engine subject to the requirements of 310 CMR 7.26(42)(b)1. And 2. Shall obtain from the supplier as statement that a certificate of conformity has been obtained from the Administrator. a. For an engine installed on or before March 9, 2018 pursuant to 40 CFR 89.105 as in effect October 23, 1998, any engine certified under EPA nonroad standards is automatically certified to operate as an emergency engine pursuant to 310 CMR 7.26(42). b. For a spark ignition engine, a letter or other documentation from the supplier stating that the engine meets the applicable emission limitation shall satisfy the certificate of conformity requirements in 310 CMR 7.26(42)(b)3.
	28. In accordance with 310 CMR 7.26(42)(c), ensure that no person accept delivery for burning in any engine or turbine subject to 310 CMR 7.26(42) diesel or any other distillate fuel that does not meet the sulfur content limits for fuel in 310 CMR 7.05.

Table 8e

EU	Special Terms and Conditions
EU 18a EU 18b	29. In accordance with 310 CMR 7.26(42)(b), ensure that the engine(s) complies with the emission limitations set forth in 310 CMR 7.26(42).
	30. In accordance with 310 CMR 7.26(42)(d)1.a, ensure that any emergency engine or turbine subject to 310 CMR 26(42) shall comply with the following operation and maintenance requirements: a. Operate only for up to 100 hours per calendar year, or as otherwise approved by the USEPA, 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; b. As part of the 100 hours, for up to 50 hours per calendar year for non-emergency situations; and c. During an emergency.
	31. In accordance with 310 CMR 7.26(42)(d)1.b, additional limitations and conditions may apply, including but not limited to 40 CFR Part 63, Subpart ZZZZ, 40 CFR 60 Subpart JJJJ; and 40 CFR Part 60, Subpart IIII.
	32. In accordance with 310 CMR 7.26(42)(d)2., ensure that each engine and its associated equipment is constructed, located, operated and maintained in a manner to comply with the requirements of 310 CMR 7.10: Noise.
	33. In accordance with 310 CMR 7.26(42)(d)3.a, ensure that each engine utilizes an exhaust stack that discharges so as not to cause a condition of air pollution (310 CMR 7.01(1)): a. Exhaust stacks shall be configured to discharge the combustion gases vertically and shall not be equipped with any part or device that impedes the vertical exhaust flow of the emitted combustion gases. b. Any emission impacts of exhaust stacks on sensitive receptors including, but not limited to, people, windows and doors that open, and building fresh air intakes shall be minimized by employing good air pollution control engineering practices. Such practices shall include without limitation: (i) Avoiding locations that may be subject to downwash of the exhaust; and (ii) Installing a stack of sufficient height in locations that will prevent and minimize flue gas impacts upon sensitive receptors.
	34. In accordance with 310 CMR 7.26(42)(d)3.b, ensure that any engine with a rated power output equal to or greater than 300 kW, shall have an exhaust stack with a minimum stack height of ten feet above the facility rooftop or the emergency engine enclosure, whichever is lower.
	35. In accordance with 310 CMR 7.26(d)3.c, ensure that each engine with a rated power output equal to or greater than one MW shall be equipped with an exhaust stack with a minimum stack height of 1.5 times the height of the building on which the stack is located. If the stack is lower than 1.5 times the building height or lower than the height of a structure that is within 5L of the stack (5L being five times the lesser of the height or maximum projected width of the structure), the owner/operator shall submit documentation that the operation of the engine will not cause an exceedance of any National Ambient Air Quality Standard.
	36. In accordance with 310 CMR 7.26(42)(e)1., ensure that no person shall cause, suffer, allow, or permit the installation and subsequent operation of an engine or turbine unless said person has certified compliance with the requirements of 310 CMR 7.26(42) in its entirety in accordance with the provisions of 310 CMR 70.00: *Environmental Results Program Certification*. Certification shall include a statement from the supplier that the installed engine or turbine is capable of complying with the emission limitations for the first three years of operation. A one-time certification shall be made to MassDEP within 60 days of commencement of operation. An annual certification is not required.
EU 18a	37. In accordance with 310 CMR 7.00 Appendix C(9) and (10), comply with any other applicable requirements found in 40 CFR 60 Subpart IIII.

Table 8f

EU	Special Terms and Conditions
EU 18b	38. In accordance with 40 CFR Part 60; Subpart JJJJ §60.4243(b), ensure that each engine has a model year certification or be able to demonstrate compliance with the model year requirements.
	39. In accordance with 40 CFR Part 60; Subpart JJJJ §60.4243(d), ensure that each engine operates no more than 100 hours per year total including 50 hours of maintenance testing and readiness checks. Peak shaving for these units is not permitted.
	40. In accordance with 40 CFR Part 60; Subpart JJJJ §60.4243(e), these engines may operate in emergency situations only and for less than 100 hours per year while burning propane. If they operate for more than 100 hours per year while burning propane, the units must be tested to demonstrate compliance with the emission standards of §60.4233.
	41. In accordance with 40 CFR Part 60; Subpart JJJJ §60.4233(d), §60.4233(e), and §60.4234, meet the applicable Table 1 to 40 CFR 60 Subpart JJJJ emission standards for the life of the units.
	42. In accordance with 40 CMR 7.00 Appendix C(9) and (10), comply with any other applicable requirements found in 40 CFR Part 60 Subpart JJJJ.
EU 19	43. EU 19 is subject to the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 CFR §60.4200 through §60.4219 and shall comply with all applicable requirements.
	44. EU 19 is subject to the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 CFR §63.6580 and §63.6675 and shall comply with all applicable requirements.
	45. In accordance with 40 CFR §63.6590(c), a new stationary RICE located at an area source of HAP emissions complying with the applicable requirements in 40 CFR Part 60 Subpart IIII does not have to meet the requirements of 40 CFR Part 63, Subpart ZZZZ and of 40 CFR Part 63 Subpart A.
	46. In accordance with 40 CFR §60.4207(b), beginning October 1, 2010, owners and operators of stationary compression ignition internal combustion engines subject to 40 CFR Subpart IIII with a displacement less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for non-road diesel fuel.
	47. In accordance with 40 CFR §60.4211(a): a. Operate and maintain each engine according to the manufacturer's emission-related written instructions; b. Change only those emission-related setting that are permitted by the manufacturer; and c. Meet the requirements of 40 CFR Parts 89, 94 and/or 1068, as they apply to you.
	48. In accordance with 40 CFR §60.4211(f)(2), emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per calendar year. There is no time limit on the use of emergency stationary ICE in emergency situations under this provision (although MassDEP limits total annual operation to 188 hours per year). The owner or operator may petition the USEPA and MassDEP ro approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ice beyond 100 hours per year.
	49. In accordance with 40 CFR §60.4211(f)(3), emergency stationary ICE may operate up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted are counted towards the 100 hours per calendar year provided for maintenance and testing. The 50 hours per calendar 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 non-emergency power as part of a financial arrangement with another entity.

Table 8g

EU	Special Terms and Conditions
EU 19	50. In accordance with 40 CFR 60.4211(f), for owners and operators of emergency engines, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as permitted in this section, is prohibited.
	51. In accordance with 40 CFR 60.4211(g)(1), if you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows: a. You must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions; in addition b. If you do not install and configure the engine control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.
	52. In accordance with 40 CFR 60.4212(c), exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the not-to-exceed (NTE) numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation: **NTE requirement for each pollutant = (1.25) x (STD) (Eq. 1)** Where: STD – The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in §60.4213 of this subpart, as appropriate.
	53. In accordance with 310 CMR 7.26(42)(d)2., each engine shall be operated and maintained in accordance with the manufacturer's recommended operating and maintenance procedures.
	54. In accordance with 310 CMR 7.26(42)(d)3., each engine and its associated equipment shall be constructed, located, operated and maintained in a manner to comply with the requirements of 310 CMR 7.10: *Noise*.
	55. In accordance with 310 CMR 7.26(42)(d)3.a, ensure that each engine utilizes an exhaust stack that discharges so as not to cause a condition of air pollution (310 CMR 7.01(1)): a. Exhaust stacks shall be configured to discharge the combustion gases vertically and shall not be equipped with any part or device that impedes the vertical exhaust flow of the emitted combustion gases. b. Any emission impacts of exhaust stacks on sensitive receptors including, but not limited to, people, windows and doors that open, and building fresh air intakes shall be minimized by employing good air pollution control engineering practices. Such practices shall include without limitation: (i) Avoiding locations that may be subject to downwash of the exhaust; and (ii) Installing a stack of sufficient height in locations that will prevent and minimize flue gas impacts upon sensitive receptors.

Table 8h	
EU	**Special Terms and Conditions**
EU 51	56. EU 51 shall consist of the equipment specified in Table 1a herein.
	57. In accordance with MassDEP Plan Approval #WE-20-001 (05/07/20), EU 51 shall be equipped with an oxygen trim system as defined in 40 CFR 63.11237.
	58. The Permittee is subject to Subpart Dc of the federal Standards of Performance for New Stationary Sources, 40 CFR Part 60.40c through 60.48c and shall comply with all applicable requirements
	59. The Permittee is subject to Subpart JJJJJJ of the National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 63.11193 through 63.11237 and shall comply with all applicable requirements.
	60. Pursuant to 40 CFR 60.42c(i), the fuel oil sulfur limits apply at all times, including periods of startup, shutdown and malfunction.
	61. Pursuant to 40 CFR 63.11205(a), at all times the Permittee shall operate and maintain EU 51, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.
	62. Pursuant to 40 CFR 63.11223(c), the Permittee shall set the oxygen level, for the oxygen trim system, no lower than the oxygen concentration measured during the most recent tune-up
Central Heating Plant-Wide	63. In accordance with MassDEP Approval # 1B-08-015 (12/31/09; amended 1/19/11, 9/14/12 & 6/14/13), properly train all personnel to operate the facility monitoring and control equipment in accordance with vendor specifications and all applicable regulations. This training shall be updated at least once annually. MassDEP personnel shall be informed of scheduled training sessions at least 30 days in advance and MassDEP personnel shall be allowed access to attend these training sessions.
Facility-Wide	64. In accordance with 310 CMR 7.10, not cause or allow emissions of sound of sufficient intensity and/or duration as to cause or contribute to a condition of air pollution. **[State Only]**
	65. In accordance with 310 CMR 7.09, not cause or allow emissions of odor or dust that cause or contribute to a condition of air pollution. **[State Only]**
	66. UMass-Amherst has indicated that it is subject to, and in compliance with, the requirements of 310 CMR 7.16, Reduction of Single Occupant Commuter Vehicle Use.

Table 8 Key

EU = Emission Unit
BACT = Best Available Control Technology
CFR = Code of Federal Regulations
CMR = Code of Massachusetts Regulations
CTG = Combustion Turbine Generator
CI = Combustion Ignition
CO = Carbon Monoxide
HAP = Hazardous Air Pollutant
ICE = Internal Combustion Engine
kW = Kilowatt
NO_X = Nitrogen Oxides
NSPS = New Source Performance Standards
RICE = Reciprocating Internal Combustion Engine
mmHg = Millimeters of Mercury
°C = Degrees Centigrade
% = Percent
USEPA = United States Environmental Protection Agency

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.

A. 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), 7.70, 7.71, 7.72, 7.74, 7.75 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[1] emission limitations specified in this Permit as a result of an emergency[2]. In order to use emergency as an affirmative defense to an action brought for noncompliance, the Permittee shall demonstrate the affirmative

[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.

defense through properly signed, contemporaneous operating logs, or other relevant evidence that:

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

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

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

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

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

25. PERMIT DEVIATION

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

The Permittee shall report to the MassDEP's Regional Bureau of Air and Waste the following deviations from permit requirements, by telephone, 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) 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.