

STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION 17 STATE HOUSE STATION AUGUSTA, MAINE 04333-0017

DEPARTMENT ORDER

University of New England York County Biddeford, Maine A-487-71-T-A Departmental
Findings of Fact and Order
Air Emission License
Amendment # 4

FINDINGS OF FACT

After review of the air emission license amendment application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes (M.R.S.) § 344 and § 590, the Maine Department of Environmental Protection (Department) finds the following facts:

I. REGISTRATION

A. Introduction

The University of New England (UNE) was issued Air Emission License A-487-71-P-R/A on 8/20/14, for the operation of emission sources associated with their educational facility. The license was subsequently amended on 9/1/17 (A-487-71-Q-A), 12/21/18 (A-487-71-R-A), and on 11/20/20 (A-487-71-S-A).

UNE has requested an amendment to their license in order to replace Boiler #4 with a new unit designated Boiler #11, change the fuel for Boiler #3 from #4 fuel oil to propane and distillate fuel, remove #4 fuel oil from the Air Emission License, and increase the distillate fuel limit to 430,000 gallons per year.

The equipment addressed in this license amendment is located at 11 Hills Beach Rd, Biddeford, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license amendment:

Boilers

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate (gal/hr)	Fuel Type, % sulfur	Date of Manuf.	Date of Install.	Stack #
Boiler #3	6.7	propane - 68.3 distillate fuel - 47	propane – neg. distillate fuel –	1984	1984	#2
Boiler #11	6.3	propane - 69 distillate fuel - 45	0.0015%	2021	2021	#2

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C. Definitions

<u>Distillate Fuel</u> means the following:

- Fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials (ASTM) in ASTM D396;
- · Diesel fuel oil numbers 1 or 2, as defined in ASTM D975;
- · Kerosene, as defined in ASTM D3699;
- · Biodiesel, as defined in ASTM D6751; or
- · Biodiesel blends, as defined in ASTM D7467.

D. Application Classification

All rules, regulations, or statutes referenced in this air emission license refer to the amended version in effect as of the date this license was issued.

The modification of a minor source is considered a major or minor modification based on whether or not expected emission increases exceed the "Significant Emission" levels as defined in the Department's *Definitions Regulation*, 06-096 Code of Maine Rules (C.M.R.) ch. 100. The emission increases are determined by subtracting the current licensed annual emissions preceding the modification from the maximum future licensed annual emissions, as follows:

	Current License	Future License	Net Change	Significant
Pollutant	(TPY)	(TPY)	(TPY)	Emission Levels
PM	4.6	4.4	-0.2	100
PM_{10}	4.6	4.4	-0.2	100
SO_2	3.6	0.2	-3.4	100
NO_x	20.6	20.6	0.0	100
CO	5.6	5.6	0.0	100
VOC	0.8	0.8	0.0	50

This modification is determined to be a minor modification and has been processed as such.

E. Facility Classification

With the annual fuel limit on the boilers, and the operating hours restriction on the emergency generators, the facility is licensed as follows:

- As a synthetic minor source of air emissions, because UNE is subject to license restrictions that keep facility emissions below major source thresholds for criteria pollutants; and
- · As an area source of hazardous air pollutants (HAP), because the licensed emissions are below the major source thresholds for HAP.

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II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100. Separate control requirement categories exist for new and existing equipment.

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BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in 06-096 C.M.R. ch. 100. BACT is a top-down approach to selecting air emission controls considering economic, environmental, and energy impacts.

B. Boilers #3 and #11

UNE operates Boilers #3 and #11 for heat. Boiler #3 is an existing unit in which new burners will be installed to allow the unit to fire both propane and distillate fuel. It was manufactured in 1984 and with the new burners has a heat input rating of 6.7 MMBtu/hr. Boiler #11 is a new unit that is replacing Boiler #4 and is rated at 6.3 MMBtu/hr and was manufactured in 2021. Boiler #11 fires both distillate fuel and propane. Boilers #3 and #11 share a common stack designated as Stack #2.

Boilers #3 and #11 are licensed to fire distillate fuel which, by definition, has a sulfur content of 0.5% or less by weight. Per 38 M.R.S. § 603-A(2)(A)(3), as of July 1, 2018, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm). Therefore, the distillate fuel purchased or otherwise obtained for use in Boilers #3 and #11 shall not exceed 0.0015% by weight (15 ppm).

1. BACT Findings

Following is a BACT analysis for control of emissions from Boilers #3 and #11.

a. Particulate Matter (PM, PM₁₀)

UNE has proposed to burn only low-ash content fuels (propane and distillate fuel) in the boilers and to optimize combustion using good combustion and maintenance practices. Additional add-on pollution controls are not economically feasible.

BACT for PM/PM₁₀ emissions from Boilers #3 and #11 is the use of good combustion and maintenance practices and the emission limits listed in the tables below.

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b. Sulfur Dioxide (SO₂)

UNE has proposed to fire only propane and distillate fuel with a sulfur content not to exceed 0.0015% by weight. The use of these fuels results in minimal emissions of SO₂, and additional add-on pollution controls are not economically feasible.

BACT for SO₂ emissions from Boilers #3 and #11 is the use of propane and ultralow-sulfur distillate fuel and the emission limits listed in the tables below.

c. Nitrogen Oxides (NO_x)

UNE considered several control strategies for the control of NO_x including Selective Catalytic Reduction (SCR), Selective Non-Catalytic Reduction (SNCR), water/steam injection, flue gas recirculation (FGR), and use of good combustion and maintenance practices.

Both SCR and SNCR are technically feasible control technologies for minimizing NO_x. However, they have a negative environmental impact of emissions of unreacted ammonia. In addition, due to the initial capital cost and the annual operating costs, these systems are typically only considered cost effective for units larger than Boilers #3 and #11.

Water/steam injection and FGR have similar NO_x reduction efficiencies. However, water/steam injection results in reduced boiler efficiency of approximately 5%.

FGR is not available on boilers of this size, while maintaining the ability to fire multiple fuels.

BACT for NO_x emissions from Boilers #3 and #11 is the use of good combustion and maintenance practices, and the emission limits listed in the tables below.

d. Carbon Monoxide (CO) and Volatile Organic Compounds (VOC)

UNE considered several control strategies for the control of CO and VOC including oxidation catalysts, thermal oxidizers, and use of good combustion and maintenance practices.

Oxidation catalysts and thermal oxidizers both have high capital, maintenance, and operational costs considering the size of the boilers in question. These controls were determined to not be economically feasible.

BACT for CO and VOC emissions from Boilers #3 and #11 is the use of good combustion and maintenance practices and the emission limits listed in the tables below.

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e. Emission Limits

The BACT emission limits for Boilers #3 and #11 were based on the following:

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Distillate Fuel

PM/PM₁₀ – 0.08 lb/MMBtu based on 06-096 C.M.R. ch. 115, BACT SO₂ – based on firing distillate fuel with a maximum sulfur

content of 0.0015% by weight

NO_x - 20 lb/1000 gal based on AP-42, Table 1.3-1, dated 5/10 CO - 5 lb/1000 gal based on AP-42, Table 1.3-1, dated 5/10 VOC - 0.34 lb/1000 gal based on AP-42, Table 1.3-1, dated 5/10

Visible Emissions – 06-096 C.M.R. ch. 115, BACT

Propane

 PM/PM₁₀
 - 0.05 lb/MMBtu based on 06-096 C.M.R. ch. 115, BACT

 SO₂
 - 0.054 lb/1000 gal based on AP-42 Table 1.5-1 dated 7/08

 NO_x
 - 13 lb/1000 gal based on AP-42 Table 1.5-1 dated 7/08

 CO
 - 7.5 lb/1000 gal based on AP-42 Table 1.5-1 dated 7/08

 VOC
 - 1 lb/1000 gal based on AP-42 Table 1.5-1 dated 7/08

Visible Emissions – 06-096 C.M.R. ch. 115, BACT

The BACT emission limits for Boilers #3 and #11 are the following:

Unit	Pollutant	lb/MMBtu
Boiler #3 propane	PM	0.05
Boiler #3 distillate fuel	PIVI	0.08
Boiler #11 propane	PM	0.05
Boiler #11 distillate fuel	PM	0.08

	PM	PM_{10}	SO_2	NO_x	CO	VOC
Unit	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)
Boiler #3	0.54	0.54	0.01	0.96	0.24	0.02
distillate fuel						
Boiler #3	0.34	0.34		.095	0.55	0.07
propane						
Boiler #11	0.50	0.50	0.01	0.90	0.23	0.02
distillate fuel						
Boiler #11	0.32	0.32		0.90	0.52	0.07
propane						

2. Visible Emissions

Visible emissions from the combined stack for Boilers #3 and #11 shall not exceed 20% opacity on a six-minute block average basis when firing distillate fuel.

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Visible emissions from the combined stack for Boilers #3 and #11 shall not exceed 10% opacity on a six-minute block average basis when firing propane.

3. Periodic Monitoring

Periodic monitoring for Boilers #3 and #11 shall include recordkeeping to document fuel use both on a monthly and calendar year total basis. Documentation shall include the type of fuel used and sulfur content of the fuel, if applicable.

4. New Source Performance Standards (NSPS): 40 C.F.R. Part 60, Subpart Dc

Due to their size, Boilers #3 and #11 are not subject to Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40c]

5. National Emission Standards for Hazardous Air Pollutants (NESHAP): 40 C.F.R. Part 63, Subpart JJJJJJ

Boiler #11 is subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, 40 C.F.R. Part 63, Subpart JJJJJJ. The unit is considered a new boiler rated less than 10 MMBtu/hr. Boiler #3 is already subject to 40 C.F.R. Part 63, Subpart JJJJJJ, and its applicability was addressed in Air Emission License A-487-71-P-R/A. [40 C.F.R. §§63.11193 and 63.11195]

Gas-fired boilers are exempt from 40 C.F.R. Part 63, Subpart JJJJJJ. However, boilers which fire fuel oil are not. A "gas-fired boiler" is defined as any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel. As Boiler #11 is licensed to burn distillate fuel for a period longer than 48 hours, so it is not classified as a gas-fired boiler. [40 C.F.R. § 63.11237]

A summary of the currently applicable federal 40 C.F.R. Part 63, Subpart JJJJJJ requirements is listed below. Notification forms and additional rule information can be found on the following website: https://www.epa.gov/stationary-sources-air-pollution/compliance-industrial-commercial-and-institutional-area-source.

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- a. Compliance Dates, Notifications, and Work Practice Requirements
 - (1) Initial Notification of Compliance

An Initial Notification submittal to EPA for Boiler #11 is due within 120 days after the source becomes subject to the standard. [40 C.F.R. § 63.11225(a)(2)]

- (2) Boiler Tune-Up Program
 - (i) A boiler tune-up program shall be implemented. [40 C.F.R. § 63.11223]
 - (ii) Each tune-up shall be conducted on Boiler #11 every two years as specified by the rule and based on the size, age, and operations of the boiler. [40 C.F.R. § 63.11223(a) and Table 2]
 - (iii)The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:
 - 1. As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. Delay of the burner inspection until the next scheduled shutdown is permitted for up to 72 months from the previous inspection for oil fired boilers less than or equal to 5 MMBtu/hour, boilers with oxygen trim systems, seasonal boilers, and limited use boilers. [40 C.F.R. § 63.11223(b)(1)]
 - 2. Inspect the flame pattern, <u>as applicable</u>, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 C.F.R. § 63.11223(b)(2)]
 - 3. Inspect the system controlling the air-to-fuel ratio, <u>as applicable</u>, and ensure it is correctly calibrated and functioning properly. [40 C.F.R. § 63.11223(b)(3)]
 - 4. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 C.F.R. § 63.11223(b)(4)]
 - 5. Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after 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. [40 C.F.R. § 63.11223(b)(5)]

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- 6. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up.

 [40 C.F.R. § 63.11223(b)(7)]
- (iv) <u>Tune-Up Report</u>: A tune-up report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the following information:
 - 1. The concentration of CO in the effluent stream (ppmv) and oxygen (volume percent) measured at high fire or typical operating load both **before** and **after** the boiler tune-up;
 - 2. A description of any corrective actions taken as part of the tune-up of the boiler; and
 - 3. The types and amounts of fuels 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. [40 C.F.R. § 63.11223(b)(6)]

(3) Compliance Report

A compliance report shall be prepared by March 1st biennially which covers the previous two calendar years. The report shall be maintained by the source and submitted to the Department and/or to the EPA upon request. The report must include the items contained in §§ 63.11225(b)(1) and (2), including the following: [40 C.F.R. § 63.11225(b)]

- (i) Company name and address;
- (ii) A statement of whether the source has complied with all the relevant requirements of this Subpart;
- (iii)A statement certifying truth, accuracy, and completeness of the notification and signed by a responsible official and containing the official's name, title, phone number, email address, and signature;
- (iv) The following certifications, as applicable:
 - 1. "This facility complies with the requirements in 40 C.F.R. § 63.11223 to conduct tune-ups of each boiler in accordance with the frequency specified in this Subpart."
 - 2. "No secondary materials that are solid waste were combusted in any affected unit."

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3. "This facility complies with the requirement in §§ 63.11214(d) and 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."

b. Recordkeeping

Records shall be maintained consistent with the requirements of 40 C.F.R. Part 63, Subpart JJJJJJ including the following [40 C.F.R. § 63.11225(c)]:

- (1) Copies of notifications and reports with supporting compliance documentation;
- (2) Identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned;
- (3) Records of the occurrence and duration of each malfunction of each applicable boiler; and
- (4) Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.

Records shall be in a form suitable and readily available for expeditious review. [40 C.F.R. § 63.11225(d)]

C. Annual Emissions

The table below provides an estimate of facility-wide annual emissions for the purposes of calculating the facility's annual air license fee. Only licensed equipment is included, i.e., emissions from insignificant activities are excluded. Similarly, unquantifiable fugitive particulate matter emissions are not included. Maximum potential emissions were calculated based on the following assumptions:

- Firing 430,000 gal/yr distillate fuel in the boilers;
- Firing 750,000 gal/yr propane in the boilers; and
- Operating all emergency generators for 100 hrs/yr each.

Please note, this information provides the basis for fee calculation <u>only</u> and should not be construed to represent a comprehensive list of license restrictions or permissions. That information is provided in the Order section of this license.

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Total Licensed Annual Emissions for the Facility Tons/year

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(used to calculate the annual license fee)

	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Boilers, Distillate	2.41	2.41	0.05	9.03	1.08	0.07
Boilers, Propane	1.72	1.72	0.02	4.88	2.81	0.38
Emergency Gen. #1	0.04	0.04	0.01	0.98	0.26	0.03
Emergency Gen. #2	0.02	0.02	0.01	0.58	0.12	0.05
Emergency Gen. #3	0.01	0.01	0.01	0.34	0.07	0.03
Emergency Gen. #4	0.01	0.01	0.01	0.26	0.05	0.02
Emergency Gen. #5	0.01	0.01	0.01	0.28	0.06	0.02
Emergency Gen. #6	0.03	0.03	0.01	0.82	0.22	0.02
Emergency Gen. #7	0.03	0.03	0.01	0.75	0.2	0.02
Emergency Gen. #8	0.03	0.03	0.01	0.75	0.2	0.02
Emergency Gen. #9	0.01	0.01	0.01	0.24	0.05	0.02
Emergency Gen. #10	0.01	0.01	0.01	0.3	0.06	0.02
Emergency Gen. #11	0.04	0.04	0.01	1.16	0.31	0.03
Emergency Gen. #12			-	0.15	0.03	0.01
Total TPY	4.4	4.4	0.2	20.6	5.6	0.8

Pollutant	Tons/year
Single HAP	9.9
Total HAP	24.9

III. AMBIENT AIR QUALITY ANALYSIS

The level of ambient air quality impact modeling required for a minor source is determined by the Department on a case-by case basis. In accordance with 06-096 C.M.R. ch. 115, an ambient air quality impact analysis is not required for a minor source if the total licensed annual emissions of any pollutant released do not exceed the following levels and there are no extenuating circumstances:

Pollutant	Tons/Year
PM_{10}	25
SO_2	50
NO_x	50
CO	250

The total licensed annual emissions for the facility are below the emission levels contained in the table above and there are no extenuating circumstances; therefore, an ambient air quality impact analysis is not required as part of this license amendment.

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Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards, and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License Amendment A-487-71-T-A subject to the conditions found in Air Emission License A-487-71-P-R/A; in amendments A-487-71-Q-A, A-487-71-R-A, and A-487-71-S-A; and the following conditions.

<u>Severability</u>. The invalidity or unenforceability of any provision of this License Amendment or part thereof shall not affect the remainder of the provision or any other provisions. This License Amendment shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

SPECIFIC CONDITIONS

The following shall replace Condition (16) of Air Emission License A-487-71-P-R/A.

(16) Boilers #3, #6, #7, #8, #9, and #11

A. Fuel

- 1. Total distillate fuel use for Boilers #3, #6, #7, #8, #9, and #11 shall not exceed 430,000 gal/yr, on a calendar year total basis. [06-096 C.M.R. ch. 115, BACT]
- 2. The facility shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm). [06-096 C.M.R. ch. 115, BPT]
- 3. Compliance shall be demonstrated by fuel records showing the quantity, type, and the percent sulfur of the fuel delivered. Records of annual fuel use shall be kept on a monthly and calendar year basis. Fuel sulfur content, compliance shall be demonstrated by fuel delivery receipts from the supplier, certificate of analysis, or testing of the tank containing the fuel to be fired. [06-096 C.M.R. ch. 115, BPT]
- 4. Total propane use for UNE shall not exceed 750,000 gal/yr, on a calendar year total basis. Compliance shall be demonstrated by fuel records from the supplier showing quantity of the fuel delivered. Records of annual fuel use shall be kept on a monthly and calendar year total basis. [06-096 C.M.R. 115, BPT]

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B. Emissions for each boiler shall not exceed the following while firing distillate fuel:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #3	PM	0.08	06-096 C.M.R. ch. 115, BACT
Boiler #6	PM	0.08	06-096 C.M.R. ch. 115, BPT
Boiler #7	PM	0.08	06-096 C.M.R. ch. 115, BPT
Boiler #8	PM	0.08	06-096 C.M.R. ch. 115, BPT
Boiler #9	PM	0.08	06-096 C.M.R. ch. 115, BPT
Boiler #11	PM	0.08	06-096 C.M.R. ch. 115, BACT

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #3	0.54	0.54	0.01	0.96	0.24	0.02
Boiler #6	0.67	0.67	4.23	2.52	0.30	0.02
Boiler #7	0.67	0.67	4.23	2.52	0.30	0.02
Boiler #8	0.08	0.08	0.53	0.32	0.04	0.01
Boiler #9	0.24	0.24	1.51	0.90	0.11	0.01
Boiler #11	0.50	0.50	0.01	0.90	0.23	0.02

[06-096 C.M.R. ch. 115, BPT for boilers #6, #7, #8, and #9; 06-096 C.M.R. ch. 115, BACT for Boilers #3 and #11]

C. Emissions from each boiler shall not exceed the following while firing propane:

Emission Unit	ission Unit Pollutant Ib/MMBtu Orig		Origin and Authority
Boiler #3	PM	0.05	06-096 C.M.R. ch. 115, BACT
Boiler #6	PM	0.05	06-096 C.M.R. ch. 115, BPT
Boiler #7	PM	0.05	06-096 C.M.R. ch. 115, BPT
Boiler #11	PM	0.05	06-096 C.M.R. ch. 115, BACT

Emission	PM	PM ₁₀	SO ₂	NOx	CO	VOC
Unit	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)
Boiler #3	0.34	0.34		.095	0.55	0.07
Boiler #6	0.42	0.42	0.01	1.19	0.69	0.09
Boiler #7	0.42	0.42	0.01	1.19	0.69	0.09
Boiler #11	0.32	0.32		0.90	0.52	0.07

[06-096 C.M.R. ch. 115, BPT for boilers #6, and #7, 06-096 C.M.R. ch. 115, BACT for Boilers #3 and #11]

D. Visible emissions from the stack of each boiler firing distillate fuel shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 3(A)(2) and 06-096 C.M.R. ch. 115, BACT]

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E. Visible emissions from the stack of each boiler firing propane shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 3(A)(3) and 06-096 C.M.R. ch. 115, BACT]

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- F. UNE shall comply with all requirements of 40 C.F.R. Part 63, Subpart JJJJJJ applicable to Boilers #3, #9, and #11 including, but not limited to, the following: [incorporated under 06-096 C.M.R. ch. 115, BACT]
 - 1. An Initial Notification submittal to EPA is due for Boiler #11 within 120 days after instillation. [40 C.F.R. § 63.11225(a)(2)]
 - 2. The facility shall implement a boiler tune-up program. [40 C.F.R. § 63.11223]
 - a. Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. See chart below:

	Tune-Up
Boiler Category	Frequency
New or existing oil boilers that are not designated as "Boilers with less frequent tune up requirements" (Boilers #3 and #11)	Every 2 years
Existing oil-fired boilers with a heat input capacity of ≤ 5MMBtu/hr (Boiler #9)	Every 5 years

[40 C.F.R. § 63.11223(a) and Table 2]

- b. The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:
 - (1) As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. Delay of the burner inspection until the next scheduled shutdown is permitted for up to 72 months from the previous inspection for oil fired boilers less than or equal to 5 MMBtu/hour, boilers with oxygen trim systems, seasonal boilers, and limited use boilers.

 [40 C.F.R. § 63.11223(b)(1)]
 - (2) Inspect the flame pattern, <u>as applicable</u>, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 C.F.R. § 63.11223(b)(2)]
 - (3) Inspect the system controlling the air-to-fuel ratio, <u>as applicable</u>, and ensure it is correctly calibrated and functioning properly [40 C.F.R. § 63.11223(b)(3)]

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(4) Optimize total emissions of CO, consistent with manufacturer's specifications. [40 C.F.R. § 63.11223(b)(4)]

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- (5) Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after 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. [40 C.F.R. § 63.11223(b)(5)]
- (6) If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up.

 [40 C.F.R. § 63.11223(b)(7)]
- c. <u>Tune-Up Report</u>: A tune-up report shall be maintained onsite and, if requested, submitted to EPA and the Department. The report shall contain the following information:
 - (1) The concentration of CO in the effluent stream (ppmv) and oxygen (volume percent) measured at high fire or typical operating load both **before** and **after** the boiler tune-up;
 - (2) A description of any corrective actions taken as part of the tune-up of the boiler; and
 - (3) The types and amounts of fuels 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. [40 C.F.R. § 63.11223(b)(6)]

3. Compliance Report

A compliance report shall be prepared by March 1st biennially (Boilers #3 and #11) and every five years (Boiler #9) which covers the previous two or five calendar years (as applicable). The report shall be maintained by the source and submitted to the Department and/or to the EPA upon request. The report must include the items contained in §§ 63.11225(b)(1) and (2), including the following: [40 C.F.R. § 63.11225(b)]

- a. Company name and address;
- b. A statement of whether the source has complied with all the relevant requirements of 40 C.F.R. Part 63, Subpart JJJJJJ;

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c. A statement certifying truth, accuracy, and completeness of the notification and signed by a responsible official and containing the official's name, title, phone number, email address, and signature;

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- d. The following certifications, as applicable:
 - (1) "This facility complies with the requirements in 40 C.F.R. § 63.11223 to conduct tune-ups of each boiler in accordance with the frequency specified in this Subpart."
 - (2) "No secondary materials that are solid waste were combusted in any affected unit."
 - (3) "This facility complies with the requirement in §§ 63.11214(d) and 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."
- 4. Records shall be maintained consistent with the requirements of 40 C.F.R. Part 63, Subpart JJJJJJ including the following [40 C.F.R. § 63.11225(c)]:
 - a. Copies of notifications and reports with supporting compliance documentation;
 - b. Identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned;
 - c. Records of the occurrence and duration of each malfunction of each applicable boiler; and
 - d. Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.

This Order prepared by Chris Ham, Bureau of Air Quality.

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5. Records shall be in a form suitable and readily available for expeditious review. [40 C.F.R. § 63.11225(d)]

done and dated in augusta, maine this $14^{th}\mathrm{day}$ of JUNE, $2021.$
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BY: for
MELANIE LOYZIM, COMMISSIONER
The term of this amendment shall be concurrent with the term of Air Emission License A-487-71-P-R/A.
PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES
Date of initial receipt of application: 4/14/21 Date of application acceptance: 4/27/21
Date filed with the Board of Environmental Protection:

FILED

JUN 14, 2021

State of Maine Board of Environmental Protection