



DEPARTMENT ORDER

**The University of Maine System
Franklin County
Farmington, Maine
A-603-71-M-R/A**

**Departmental
Findings of Fact and Order
Air Emission License
Renewal and Amendment**

FINDINGS OF FACT

After review of the air emission license renewal and 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 Maine System's Farmington campus (UMF) has applied to renew their Air Emission License for the operation of emission sources associated with their educational facility. In the same application, UMF requested an amendment to their license in order to correct the size and date of manufacture of one of their emergency generators (Front Street Generator) and to remove the distillate fuel limit from the Campus Heating Boilers (boilers beginning with an "H" in their names).

After the application to renew and amend the license had been accepted but before the license renewal was complete, UMF amended their Air Emission License on October 6, 2023 (A-603-71-N-A) to add Boiler #2 and increase the annual biomass firing limit for Boiler #1 to more accurately account for the moisture content of the biomass fuel.

The equipment addressed in this license is located at The University of Maine System's Farmington Campus, with a physical address of 244 Main Street, Farmington, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type	Date of Manuf.	Date of Install.	Stack #
Boiler #1	20.9	2.43 ton/hr	Biomass	2015	2015	1
Boiler #1	20.9	231 gal/hr	Propane	2015	2015	1
Boiler #2	9.9	1.15 ton/hr	Biomass	2023	2023	2

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type	Date of Manuf.	Date of Install.	Stack #
H011573	1.6	11.6 gal/hr	Distillate Fuel	2009	2009	Dakin
H011574	1.6	11.6 gal/hr	Distillate Fuel	2009	2009	Dakin
H011583	1.2	8.4 gal/hr	Distillate Fuel	2011	2011	Stone
H011584	1.2	8.4 gal/hr	Distillate Fuel	2011	2011	Stone
H011586	1.2	8.4 gal/hr	Distillate Fuel	2011	2011	Preble
H012874	2.3	25.5 gal/hr	Propane	2013	2013	Merrill
H012875	2.3	25.5 gal/hr	Propane	2013	2013	Merrill

UMF also has several small boilers, water heaters, and unit heaters not listed in the table above. These are considered insignificant emissions units because they are each rated below 1.0 MMBtu/hr, the heat input capacity at or above which would require their inclusion in the license; therefore, these small boilers, water heaters, and unit heaters are not addressed further in this license.

Stationary Engines

Equipment	Max. Input Capacity	Rated Output Capacity	Fuel Type	Firing Rate (gal/hr)	Date of Manuf.	Date of Install.
Front Street Generator ^A	1.62 MMBtu/hr	150 kW	Distillate Fuel	11.8	2006	2006
Olsen Generator	0.98 MMBtu/hr	100 kW	Distillate Fuel	7.2	1999	1999

^A Corrected the engine capacity and year of manufacture

C. Definitions

Biomass means any biomass-based solid fuel that is not a solid waste. This includes, but is not limited to, wood residue and wood products (e.g., trees, tree stumps, tree limbs, bark, lumber, sawdust, sander dust, chips, scraps, slabs, millings, and shavings). This definition also includes wood chips and processed pellets made from wood or other forest residues. Inclusion in this definition does not constitute a determination that the material is not considered a solid waste. UMF should consult with the Department before adding any new biomass type to its fuel mix.

Distillate Fuel 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.

Records or Logs mean either hardcopy or electronic records.

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.

UMF has applied to renew currently licensed emission units as well as amend their license as addressed in Section I(A) above.

The modification of a minor source is considered a major or minor modification based on whether or not expected emission increases exceed the “Significant Emissions” 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:

Pollutant	Current License (tpy)	Future License (tpy)	Net Change (tpy)	Significant Emissions Levels
PM	10.7	9.7	-1.0	100
PM ₁₀	10.7	9.7	-1.0	100
PM _{2.5}	10.7	9.7	-1.0	100
SO ₂	21.9	0.7	-21.2 ^A	100
NO _x	16.2	14.4	-1.8	100
CO	20.6	20.2	-0.4	100
VOC	0.9	0.9	-	100

^A SO₂ emissions greatly decreased due to lower maximum distillate fuel sulfur content included in state statute since the previous license renewal and removal of several distillate boilers from the license.

Therefore, this license is considered to be both a renewal and a minor modification and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules C.M.R. ch. 115.

E. Facility Classification

The facility is licensed as follows:

- As a natural minor source of criteria pollutants, because no license restrictions are necessary to 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.

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.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Heating Plant Boilers (Boilers #1 and #2)

Boiler #1 is operated for facility heating needs. Boiler #1 is rated at 20.9 MMBtu/hr and fires green, hardwood bole chips at approximately 45-50% moisture with propane as a back-up fuel. Boiler #1 was installed in 2015 and exhausts through its own stack, Stack #1.

UMF operates Boiler #2 to produce hot water for hydronic heating. Boiler #2 operates during the summer months to reduce reliance on UMF's fossil fuel fired auxiliary boilers, and during the heating season it operates instead of Boiler #1 or shares the load with Boiler #1 whenever possible. Boiler #2 is rated at 9.9 MMBtu/hr and fires green, hardwood bole chips at approximately 45-50% moisture. Boiler #2 was installed in 2023 and exhausts through its own stack, Stack #2.

When firing biomass, Boiler #1 shall operate an electrostatic precipitator (ESP) to control emissions of particulate matter (PM). The ESP is a BETH Model No. 300/aF-4x3-8 with a collection efficiency of 91.5%. After exiting the ESP, emissions exhaust through a 50-ft stack.

The ESP is not required to operate when only propane is being fired in Boiler #1. UMF shall keep records of all dates and times when the boiler is firing only propane.

1. Startup and Shutdown for Boiler #1

During startup, the ESP turns on at a reduced voltage when the temperature inside Boiler #1 reaches 100 °C and increases to full power once the boiler reaches 120 °C. During shutdown, the ESP stays on at full power at least until the temperature inside the boiler falls below 120 °C.

Therefore, for the purposes of this license, “startup” is defined as the period starting when fire is initially introduced into the boiler and ending once the boiler reaches 120 °C. “Shutdown” is defined as the period starting when the boiler temperature falls below 120 °C and ending when combustion is fully extinguished.

2. BPT Findings

The BPT emission limits for Boiler #1 were based on the following:

Biomass

- PM/PM₁₀/PM_{2.5} – 0.070 lb/MMBtu based on 40 C.F.R. Part 63, Subpart JJJJJ
- SO₂ – 0.025 lb/MMBtu based on AP-42 Table 1.6-2 dated 4/22
- NO_x – 0.22 lb/MMBtu based on AP-42 Table 1.6-2 dated 4/22
- CO – 0.60 lb/MMBtu based on AP-42 Table 1.6-2 dated 4/22
- VOC – 0.017 lb/MMBtu based on AP-42 Table 1.6-3 dated 4/22
- Visible Emissions – 06-096 C.M.R. chs. 101 and 115, BPT

Propane

- PM/PM₁₀/PM_{2.5} – 0.05 lb/MMBtu, 06-096 C.M.R. ch. 115, BPT
- SO₂ – 0.054 lb/1,000 gal based on AP-42 Table 1.5-1 dated 5/25 and an average sulfur content of 0.54 gr/100 ft³
- NO_x – 13 lb/1,000 gal based on AP-42 Table 1.5-1 dated 5/25
- CO – 7.5 lb/1,000 gal based on AP-42 Table 1.5-1 dated 5/25
- VOC – 1.0 lb/1,000 gal based on AP-42 Table 1.5-1 dated 5/25
- Visible Emissions – 06-096 C.M.R. ch. 101

The BPT emission limits for Boiler #2 were based on the following:

Biomass

- PM/PM₁₀/PM_{2.5} – 0.22 lb/MMBtu based on AP-42 Table 1.6-1 dated 4/22
- SO₂ – 0.025 lb/MMBtu based on AP-42 Table 1.6-2 dated 4/22
- NO_x – 0.22 lb/MMBtu based on AP-42 Table 1.6-2 dated 4/22
- CO – 0.60 lb/MMBtu based on AP-42 Table 1.6-2 dated 4/22
- VOC – 0.017 lb/MMBtu based on AP-42 Table 1.6-3 dated 4/22
- Visible Emissions – 06-096 C.M.R. ch. 115, BPT

The BPT emission limits for Boilers #1 and #2 are the following:

Unit	Fuel	Pollutant	lb/MMBtu
Boiler #1	Biomass	PM	0.070
Boiler #1	Propane	PM	0.05
Boiler #2	Biomass	PM	0.22

Unit	Fuel	PM (lb/hr)	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	Biomass	1.46	1.46	1.46	0.52	4.60	12.54	0.36
Boiler #1	Propane	1.05	1.05	1.05	0.01	3.00	1.73	0.23
Boiler #2	Biomass	2.18	2.18	2.18	0.25	2.18	5.94	0.17

UMF shall be limited to a facility-wide fuel limit of 6,600 ton/yr of biomass (at 50% moisture) on a 12-month rolling total basis. This limit applies to licensed emission units only and excludes insignificant activities.

UMF is limited facility-wide to no more than 500,000 gal/year of propane fuel, on a 12-month rolling total basis, as established in Air Emission License A-603-71-J-A (issued 5/18/2015). The propane fired in Boiler #1 shall be counted towards the facility-wide propane fuel limit of 500,000 gal/yr on a 12-month rolling total basis.

3. Visible Emissions

a. Boiler #1

Visible emissions from Boiler #1 shall not exceed 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a continuous three-hour period when visible emissions shall not exceed 30%, and except for periods of biomass-fired startup, shutdown, or malfunction during which time UMF shall either meet the normal operating visible emissions standard or the following alternative visible emissions standard.

During periods of biomass-fired startup, shutdown, or malfunction, visible emissions from Boiler #1 shall not exceed 30% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a 3-hour period where visible emissions shall not exceed 40% opacity. This alternative visible emissions standard shall not be utilized for more than two hours (20 consecutive six-minute block averages) per event. If this alternative visible emissions standard is utilized, UMF shall keep records of the date, time, and duration of all startup, shutdown, and malfunction events and provide them to the Department upon request.

b. Boiler #2

Visible emissions from Boiler #2 shall not exceed 30% opacity on a six-minute block average basis, except for periods of startup, shutdown, or malfunction during which time UMF must meet the normal operating visible emissions standard or the following alternative visible emissions standard:

During periods of startup, shutdown, or malfunction, visible emissions shall not exceed 40% opacity on a six-minute block average basis. This alternative visible emissions standard shall not be utilized for more than two hours (20 consecutive six-minute block averages) per event. For each time UMF elects to comply with

this alternative emission standard for periods of startup, shutdown, or malfunction, UMF shall keep records sufficient to document the date, time, and duration of each event. These records shall be maintained for at least six years and provided to the Department upon request.

4. Periodic Monitoring

Periodic monitoring for Boilers #1 and #2 shall include recordkeeping to document fuel use both on a monthly and 12-month rolling total basis. Documentation shall include the type of fuel used.

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

Due to the size, Boiler #2 is not subject to *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* 40 C.F.R. Part 60, Subpart Dc (Subpart Dc) for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40c]

Boiler #1 is subject to Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40c] However, Subpart Dc contains only limited requirements for new boilers which fire only wood and natural gas. (Propane is included in the definition of “natural gas” in Subpart Dc.)

UMF shall comply with all requirements of Subpart Dc applicable to Boiler #1 including, but not limited to, the following:

Reporting and Recordkeeping

- a. UMF shall maintain records of the amounts of each fuel combusted during each calendar month. [40 C.F.R. § 60.48c(g)(2)]
- b. UMF shall maintain records required by Subpart Dc for a period of two years following the date of the record. [40 C.F.R. § 60.48c(i)] Note: Standard Condition (8) of this license requires all records be retained for six years; therefore, the two-year record retention requirement of Subpart Dc is satisfied by compliance with the more stringent six-year requirement.

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

Boiler #1 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 JJJJJ (Subpart JJJJJ). The unit is considered a new biomass-fired boiler rated greater than 10 MMBtu/hr.

Boiler #2 is subject to Subpart JJJJJ. The unit is considered a new biomass-fired boiler rated less than 10 MMBtu/hr. [40 C.F.R. §§ 63.11193 and 63.11195]

Applicable federal 40 C.F.R. Part 63, Subpart JJJJJ requirements include the following. Additional rule information can be found on [EPA's website; https://www.epa.gov/stationary-sources-air-pollution/compliance-industrial-commercial-and-institutional-area-source](https://www.epa.gov/stationary-sources-air-pollution/compliance-industrial-commercial-and-institutional-area-source).

a. Emission Limits and Work Practice Standards

(1) As a new biomass-fired boiler with heat input capacity between 10 MMBtu/hr and 30 MMBtu/hr, Boiler #1 is subject to the following requirements:

- (i) Limit emissions of PM (filterable) to less than or equal to 0.070 lb/MMBtu, except during periods of startup and shutdown [40 C.F.R. Part 63, Subpart JJJJJ, Table 1];
- (ii) Minimize the boiler's startup and shutdown periods and conduct startups and shutdowns according to the manufacturer's recommended procedures [40 C.F.R. Part 63, Subpart JJJJJ, Table 2];
- (iii) Maintain the 30-day rolling average total secondary electric power of the ESP at or above the lowest hourly average total secondary electric power determined from the values of secondary voltage and secondary current to the ESP measured during the most recent performance stack test demonstrating compliance with the PM limit [40 C.F.R. Part 63, Subpart JJJJJ, Table 3]; and
- (iv) Maintain the 30-day rolling average operating load of the boiler such that it does not exceed 110 percent of the average operating load recorded during the most recent performance stack test [40 C.F.R. Part 63, Subpart JJJJJ, Table 3].

(2) Boiler Tune-Up Program

- (i) A boiler tune-up program shall be implemented. [40 C.F.R. § 63.11223]
- (ii) Boilers #1 and #2 are considered new biomass-fired boilers, and UMF shall conduct tune-ups on this boiler at least once every five years with no more than 61 months between tune-ups except that the boiler is not required to startup for the sole purpose of conducting a tune-up. [40 C.F.R. §§ 63.11223(c) 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 for up to 72 months from the previous inspection for boilers with oxygen trim systems. [40 C.F.R. § 63.11223(b)(1)]
 2. Inspect the flame pattern, as applicable, 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, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted for up to 72 months from the previous inspection for boilers with oxygen trim systems. [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)]
 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) Tune-Up Report: A tune-up report shall be maintained onsite and, submitted to the Department and/or EPA upon request. 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)]

b. Continuous Monitoring System (CMS) and Continuous Parameter Monitoring System (CPMS)

- (1) UMF shall install, operate, and maintain a CPMS for Boiler #1. [40 C.F.R. § 63.11222(a)]
- (2) UMF shall establish a site specific minimum total secondary electric power operating limit per 40 C.F.R. Part 63, Subpart JJJJJJ, Table 6.
- (3) UMF shall establish a unit-specific limit for maximum operating load (fuel feed rate or steam generation data) per 40 C.F.R. Part 63, Subpart JJJJJJ, Table 6.
- (4) UMF shall continuously monitor the total secondary electric power and reduce this data to 30-day rolling averages to demonstrate compliance with the limitation on the minimum total secondary electric power per 40 C.F.R. Part 63, Subpart JJJJJJ, Table 7.
- (5) UMF shall continuously monitor the boiler operating load and reduce this data to 30-day rolling averages to demonstrate compliance with the limitations on the maximum operating load per 40 C.F.R. Part 63, Subpart JJJJJJ, Table 7.
- (6) UMF shall prepare a site-specific monitoring plan that addresses the requirements outlined in 40 C.F.R. § 63.11224(c).
- (7) The CPMS shall be continuously operated in accordance with the site-specific monitoring plan at all times that Boiler #1 is operating and firing biomass except for periods of monitoring system malfunctions or out-of-control periods, repairs associated with the monitoring system malfunctions or out-of-control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in UMF's site-specific monitoring plan. [40 C.F.R. § 63.11221(b)]
- (8) The CPMS shall complete a minimum of one cycle of operation every 15 minutes. UMF shall have data values from a minimum of four successive cycles of operation representing each of the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CPMS calibration, quality assurance, or maintenance activities are being performed, to have a valid hour of data. [40 C.F.R. § 63.11224(d)(1)]
- (9) UMF shall calculate hourly arithmetic averages from each hour of CPMS data and determine the 30-day rolling average of all recorded readings. [40 C.F.R. § 63.11224(d)(2)]

c. Performance Tests

- (1) UMF conducted a performance test on Boiler #1 on January 28, 2026, in accordance with 40 C.F.R. Part 63, Subpart JJJJJJ, Table 4.
- (2) UMF shall conduct a performance stack test for PM in accordance with 40 C.F.R. Part 63, Subpart JJJJJJ, Table 4 no later than February 28, 2029, and every three years thereafter with no more than 37 months between tests. [40 C.F.R. § 63.11220]

- (3) If the results of any performance stack test are less than 50% of the PM emission limit, UMF may conduct subsequent performance stack tests every five years with no more than 61 months between tests. [40 C.F.R. § 63.11220]
- (4) If results of an every-five-years performance test show PM emissions greater than half of the PM emission limit, the frequency of subsequent performance tests must revert back to every three years with no more than 37 months between tests. [40 C.F.R. § 63.11220(b)(4)]
- (5) UMF shall conduct performance stack tests at the representative operating load conditions while burning the type of fuel (or mixture of fuels) that have the highest emissions potential. [40 C.F.R. § 63.11212(c)]
- (6) UMF shall conduct a minimum of three separate test runs for each performance stack test. [40 C.F.R. § 63.11212(d)]

d. Notifications and Reports

(1) Performance Test Report

Within 60 days after the date of completing each performance test, UMF shall submit the results of the performance test to the EPA's Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX)(<https://cdx.epa.gov/>). [40 C.F.R. § 63.1125(e)(1)] UMF shall also notify the Department of their intent to conduct a performance test at the same time notification is given to EPA.

(2) Notification of Compliance Status

A Notification of Compliance Status shall be submitted to EPA no later than 60 days following the completion of the performance stack test. [40 C.F.R. § 63.11225(a)(4)] EPA requires submission of Notification of Compliance Status reports for stack tests through their electronic reporting system. [40 C.F.R. § 63.11225(a)(4)(vi)]

(3) Compliance Report

- (i) For every five-year compliance period of Boiler #2, UMF shall prepare a compliance report by March 1st of the following year to document the information below for the five-year period. 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)]
 1. Company name and address;
 2. A statement of whether the source has complied with all the relevant requirements of this Subpart;

3. 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;
 4. The following certifications, as applicable:
 - a) "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."
 - b) "No secondary materials that are solid waste were combusted in any affected unit."
 - c) "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."
- (ii) Each year for Boiler #1, UMF shall prepare a compliance report by March 1st of the following year. The report shall be maintained by the source and submitted to the Department and/or to the EPA upon request, unless the source experiences any deviations from the applicable requirements of this Subpart during the previous calendar year, then the report must be submitted to the Department and to the EPA by March 15th. The report must include the items contained in § 63.11225(b)(1) through (4), including the following: [40 C.F.R. § 63.11225(b)]
1. Company name and address;
 2. A statement of whether the source has complied with all the relevant requirements of this Subpart;
 3. 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;
 4. The following certifications, as applicable:
 - a) "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."
 - b) "No secondary materials that are solid waste were combusted in any affected unit."
 - c) "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."
 5. If the source experiences any deviations from the applicable requirements during the reporting period, include a description of

deviations, the time periods during which the deviations occurred, and the corrective actions taken; and

6. The total fuel use by each affected boiler subject to an emission limit for each calendar month within the reporting period.

e. Recordkeeping

- (1) Records shall be maintained consistent with the requirements of 40 C.F.R. Part 63, Subpart JJJJJ including the following [40 C.F.R. § 63.11225(c)]:
 - (i) Copies of notifications and reports with supporting compliance documentation;
 - (ii) 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;
 - (iii) Records of the occurrence and duration of each malfunction of each applicable boiler; and
 - (iv) Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.
- (2) Records shall be in a form suitable and readily available for expeditious review. Each record must be kept for 5 years following the date of each recorded action. Each record must be kept on-site or be accessible from a central location by computer or other means that instantly provides access at the site for at least 2 years after the date of each recorded action. The records may be maintained off-site for the remaining 3 years. [40 C.F.R. § 63.11225(d)] Note: Standard Condition (8) of this license requires all records be retained for six years; therefore, the five-year record retention requirement of Subpart JJJJJ is satisfied by compliance with the more stringent six-year requirement.

C. Campus Heating Boilers

UMF operates seven small boilers, other than the Heating Plant Boilers, for facility heating and hot water needs throughout the campus. Previously, distillate fuel usage for the campus heating boilers had been limited to 600,000 gallons per year. UMF has requested the removal of this limit because after the net removal of 17 distillate firing units, the remaining distillate fuel firing units are not capable of firing more than 425,486 gallons of distillate fuel per year. Five of the remaining boilers exclusively fire distillate fuel, and two remaining boilers fire only propane, as summarized in the following table:

Equipment	Max. Capacity (MMBtu/hr)	Fuel Type	Date of Manuf.	Date of Install.	Stack #
H011573	1.6	Distillate Fuel	2009	2009	Dakin
H011574	1.6	Distillate Fuel	2009	2009	Dakin
H011583	1.2	Distillate Fuel	2011	2011	Stone
H011584	1.2	Distillate Fuel	2011	2011	Stone

Equipment	Max. Capacity (MMBtu/hr)	Fuel Type	Date of Manuf.	Date of Install.	Stack #
H011586	1.2	Distillate Fuel	2011	2011	Preble
H012874	2.3	Propane	2013	2013	Merrill
H012875	2.3	Propane	2013	2013	Merrill

1. BPT Findings

The BPT emission limits for the Campus Heating Boilers were based on the following:

Distillate Fuel

- PM/PM₁₀/PM_{2.5} – 0.08 lb/MMBtu, 06-096 C.M.R. ch. 115, BPT
- SO₂ – based on firing distillate fuel with a maximum sulfur content of 0.0015% by weight
- NO_x – 20 lb/1,000 gal based on AP-42 Table 1.3-1 dated 5/10
- CO – 5 lb/1,000 gal based on AP-42 Table 1.3-1 dated 5/10
- VOC – 0.34 lb/1,000 gal based on AP-42 Table 1.3-3 dated 5/10
- Visible Emissions – 06-096 C.M.R. ch. 101

Propane

- PM/PM₁₀/PM_{2.5} – 0.05 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
- SO₂ – 0.054 lb/1,000 gal based on AP-42 Table 1.5-1 dated 5/25 and an average sulfur content of 0.54 gr/100 ft³
- NO_x – 13 lb/1,000 gal based on AP-42 Table 1.5-1 dated 5/25
- CO – 7.5 lb/1,000 gal based on AP-42 Table 1.5-1 dated 5/25
- VOC – 1.0 lb/1,000 gal based on AP-42 Table 1.5-1 dated 5/25
- Visible Emissions – 06-096 C.M.R. ch. 101

The BPT emission limits for the Campus Heating Boilers are the following:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
H011573	0.13	0.13	0.13	-	0.23	0.06	-
H011574	0.13	0.13	0.13	-	0.23	0.06	-
H011583	0.10	0.10	0.10	-	0.17	0.04	-
H011584	0.10	0.10	0.10	-	0.17	0.04	-
H011586	0.10	0.10	0.10	-	0.17	0.04	-
H012874	0.12	0.12	0.12	-	0.33	0.19	0.03
H012875	0.12	0.12	0.12	-	0.33	0.19	0.03

The propane fired in Boilers H012874 and H012875 shall be counted towards the facility-wide propane fuel limit of 500,000 gal/yr on a 12-month rolling total basis as established in Air Emission License A-603-71-J-A (issued 5/18/2015).

With limited exceptions, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm) pursuant to 38 M.R.S. § 603-A(2)(A)(3). Therefore, the distillate fuel purchased or otherwise obtained for use in the Campus Heating Boilers shall not exceed 0.0015% by weight (15 ppm).

2. Visible Emissions

Visible emissions from the distillate fuel-fired boilers shall not exceed 20% opacity on a six-minute block average basis.

Visible emissions from the propane-fired boilers shall not exceed 10% opacity on a six-minute block average basis.

3. Periodic Monitoring

Periodic monitoring for the Campus Heating Boilers shall include recordkeeping to document fuel use both on a monthly and 12-month rolling total basis. Documentation shall include the type of fuel used and sulfur content of the fuel, as appropriate.

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

Due to their sizes, none of the Campus Heating Boilers are 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 JJJJJ

Boilers H012874 and H012875 are not 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 JJJJJ. Propane-fired units are exempt from the requirements of this regulation. [40 C.F.R. §§ 63.11195(e)]

Boilers H011583, H011584, and H011586 are considered hot water heaters less than 1.6 MMBtu/hr and are therefore exempt from 40 C.F.R. Part 63, Subpart JJJJJ. [40 C.F.R. § 63.11195(f)]

Boilers H011573 and H011574 are subject to 40 C.F.R. Part 63, Subpart JJJJJ. These units are considered existing oil boilers rated less than 10 MMBtu/hr. [40 C.F.R. §§ 63.11193 and 63.11195]

Applicable federal 40 C.F.R. Part 63, Subpart JJJJJ requirements include the following. Additional rule information can be found on [EPA's website; https://www.epa.gov/stationary-sources-air-pollution/compliance-industrial-commercial-and-institutional-area-source](https://www.epa.gov/stationary-sources-air-pollution/compliance-industrial-commercial-and-institutional-area-source).

a. Work Practice Standards

(1) Boiler Tune-Up Program

(i) A boiler tune-up program shall be implemented. [40 C.F.R. § 63.11223]

(ii) Boilers H011573 and H011574 are considered new oil-fired boilers, and UMF shall conduct tune-ups on these boilers at least once every five years with no more than 61 months between tune-ups except that the boilers are not required to startup for the sole purpose of conducting a tune-up. [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 for up to 72 months from the previous inspection for oil fired boilers less than or equal to 5 MMBtu/hour. [40 C.F.R. § 63.11223(b)(1)]
2. Inspect the flame pattern, as applicable, 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, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the 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. [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)]
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) Tune-Up Report: A tune-up report shall be maintained onsite and, submitted to the Department and/or EPA upon request. 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)]

(2) Compliance Report

For every five-year compliance period, UMF shall prepare a compliance report by March 1st of the following year to document the information below for the five-year period. 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."
 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

- (1) 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)]:
 - (i) Copies of notifications and reports with supporting compliance documentation;
 - (ii) 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;
 - (iii) Records of the occurrence and duration of each malfunction of each applicable boiler; and
 - (iv) Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.
- (2) Records shall be in a form suitable and readily available for expeditious review. Each record must be kept for 5 years following the date of each recorded action. Each record must be kept on-site or be accessible from a central location by computer or other means that instantly provides access at the site for at least 2 years after the date of each recorded action. The records may be maintained off-site for the remaining 3 years. [40 C.F.R. § 63.11225(d)] Note: Standard Condition (8) of this license requires all records be retained for six years; therefore, the five-year record retention requirement of Subpart JJJJJJ is satisfied by compliance with the more stringent six-year requirement.

D. Emergency Generators

UMF operates two emergency generators, Front Street Generator and Olsen Generator. The emergency generators are generator sets with each consisting of an engine and an electrical generator. The emergency generators have engines rated at 1.62 MMBtu/hr and 0.98 MMBtu/hr, respectively, which fire distillate fuel. The emergency generators were manufactured in 2006 and 1999, respectively.

1. BPT Findings

The BPT emission limits for the generators are based on the following:

PM/PM ₁₀ /PM _{2.5}	– 0.12 lb/MMBtu, 06-096 C.M.R. ch. 115, BPT
SO ₂	– Combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight)
NO _x	– 4.41 lb/MMBtu from AP-42 Table 3.3-1 dated 4/25
CO	– 0.95 lb/MMBtu from AP-42 Table 3.3-1 dated 4/25
VOC	– 0.36 lb/MMBtu from AP-42 Table 3.3-1 dated 4/25
Visible Emissions	– 06-096 C.M.R. ch. 101

The BPT emission limits for the Front Street and Olsen Generators are the following:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Front Street Generator	0.19	0.19	0.19	-	7.14	1.54	0.58
Olsen Generator	0.12	0.12	0.12	-	4.32	0.93	0.35

Visible emissions from the Front Street Generator shall not exceed 20% opacity on a six-minute block average basis.

Visible emissions from the Olsen Generator shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time UMF shall either meet the normal operating visible emissions standard or the following work practice standards and alternative visible emissions standard.

- a. The duration of the startup shall not exceed 30 minutes per event;
- b. Visible emissions shall not exceed 50% opacity on a six-minute block average basis; and
- c. UMF shall keep records of the date, time, and duration of each startup.

Use of the work practice standards and alternative visible emissions standard in lieu of the normal operating standard is limited to no more than once per day.

Note: This does not limit the engine to one startup per day. It only limits the use of the alternative emission standard to once per day.

The Front Street Generator and the Olsen Generator shall each be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. There is no limit on emergency operation. Each emergency generator shall be equipped with a non-resettable hour-meter to record operating time. To demonstrate compliance with the operating hours limit, UMF shall keep records of the total hours of operation and the hours of emergency operation for each unit.

Emergency generators are only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Emergency generators are not to be used for prime power when reliable offsite power is available; nor to operate or to be contractually obligated to be available in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity.

2. Chapter 169

The Front Street Generator and the Olsen Generator were installed prior to the effective date of *Stationary Generators*, 06-096 C.M.R. ch. 169 and are therefore exempt from this rule pursuant to section 1.

3. New Source Performance Standards (NSPS)

Due to the date of manufacture of the Olsen Generator, the engine is not subject to New Source Performance Standards (NSPS) *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)*, 40 C.F.R. Part 60, Subpart III since the unit was manufactured prior to April 1, 2006. [40 C.F.R. § 60.4200]

Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 C.F.R. Part 60, Subpart III is applicable to the Front Street Generator since the unit was ordered after July 11, 2005, and manufactured after April 1, 2006. [40 C.F.R. § 60.4200]

A summary of applicable federal 40 C.F.R. Part 60, Subpart III requirements is listed below.

a. Emergency Engine Designation and Operating Criteria

Under 40 C.F.R. Part 60, Subpart III, a stationary reciprocating internal combustion engine (ICE) is considered an **emergency** stationary ICE (emergency engine) as long as the engine is operated in accordance with the following criteria. Operation of an engine outside of the criteria specified below may cause the engine to no longer be considered an emergency engine under 40 C.F.R. Part 60, Subpart III, resulting in the engine being subject to requirements of this subpart applicable to **non-emergency** engines.

(1) Emergency Situation Operation (On-Site)

There is no operating time limit on the use of an emergency engine to provide electrical power or mechanical work during an emergency situation. Examples of use of an emergency engine during emergency situations include the following:

- Use of an engine to produce power for critical networks or equipment (including power supplied to portions of a facility) because of failure or interruption of electric power from the local utility (or the normal power source, if the facility runs on its own power production);
- Use of an engine to mitigate an on-site disaster;
- Use of an engine to pump water in the case of fire, flood, natural disaster, or severe weather conditions; and

- Similar instances.

(2) Non-Emergency Situation Operation

An emergency engine may be operated up to a maximum of 100 hours per calendar year for maintenance checks, readiness testing, and other non-emergency situations as described below.

- (i) An emergency engine may be operated for a maximum of 100 hours per calendar year 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. The owner or operator may petition the Administrator for 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 more than 100 hours per calendar year.
- (ii) An emergency engine may be operated for up to 50 hours per calendar year for other non-emergency situations. **However, these operating hours are counted as part of the 100 hours per calendar year operating limit described in paragraph (2) and (2) (i) above.**

The 50 hours per calendar year operating limit for other non-emergency situations cannot be used for peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 C.F.R. §§ 60.4211(f) and 60.4219]

b. 40 C.F.R. Part 60, Subpart IIII Requirements

(1) Manufacturer Certification Requirement

Front Street Generator shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in 40 C.F.R. § 60.4202. [40 C.F.R. § 60.4205(b)] A Certificate of Conformity was provided with the January 2023 renewal application package.

(2) Ultra-Low Sulfur Fuel Requirement

The fuel fired in the engine shall not exceed 15 ppm sulfur (0.0015% sulfur).
[40 C.F.R. § 60.4207(b)]

(3) Non-Resettable Hour Meter Requirement

A non-resettable hour meter shall be installed and operated on the engine. [40 C.F.R. § 60.4209(a)]

(4) Operation and Maintenance Requirements

The engine shall be operated and maintained according to the manufacturer's emission-related written instructions. UMF may only change those emission-related settings that are permitted by the manufacturer. [40 C.F.R. § 60.4211(a)]

UMF shall have available for review by the Department a copy of the manufacturer's emission-related written instructions for engine operation and maintenance. [06-096 C.M.R. ch. 115, BPT]

(5) Annual Time Limit for Maintenance and Testing

As an emergency engine, the unit shall be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). [40 C.F.R. § 60.4211(f)]

(6) Initial Notification Requirement

No initial notification is required under 40 C.F.R. Part 60, Subpart IIII for emergency engines. [40 C.F.R. § 60.4214(b)]

(7) Recordkeeping

UMF shall keep records that include the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the number of hours the unit operated for emergency purposes, the number of hours the unit operated for non-emergency purposes, and the reason the engine was in operation during each time. [40 C.F.R. § 60.4214(b)]

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

Pursuant to 40 C.F.R. § 63.6590(c), stationary compression ignition engines subject to regulations under 40 C.F.R. Part 60, Subpart IIII (Front Street Generator) must meet the requirements of Subpart ZZZZ by meeting the requirements of 40 C.F.R. Part 60, Subpart IIII. No further requirements apply for the Front Street Generator under Subpart ZZZZ. [40 C.F.R. § 63.6590(c)]

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 C.F.R. Part 63, Subpart ZZZZ is not applicable to the Olsen Generator. The unit is considered an existing, emergency

stationary reciprocating internal combustion engines at an area HAP source. However, it is considered exempt from the requirements of 40 C.F.R. Part 63, Subpart ZZZZ since it is categorized as an institutional emergency engine and it does not operate or is not contractually obligated to be available in a demand response program, during a period of deviation from standard voltage or frequency, or for supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in 40 C.F.R. § 63.6640(f)(4)(ii).

Operation of any emergency engine in a demand response program, during a period of deviation from standard voltage or frequency, or for supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in 40 C.F.R. § 63.6640(f)(4)(ii), would cause the engine to be subject to 40 C.F.R. Part 63, Subpart ZZZZ and require compliance with all applicable requirements of this subpart.

E. Fugitive Emissions

UMF shall not cause emissions of any fugitive dust during any period of construction, reconstruction, or operation without taking reasonable precautions. Such reasonable precautions shall be included in the facility's continuing program of best management practices for suppression of fugitive particulate matter. See 06-096 C.M.R. ch. 101, § 4(C) for a list of potential reasonable precautions.

UMF shall not cause or allow visible fugitive emissions within 20 feet of ground level, measured as any level of opacity and not including water vapor, beyond the legal boundary of the property on which such emissions occur. Compliance with this standard shall be determined pursuant to 40 C.F.R. Part 60, Appendix A, Method 22.

F. 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 and establishing the facility's potential to emit (PTE). Only licensed equipment is included, i.e., emissions from insignificant activities are excluded. Similarly, unquantifiable fugitive particulate matter emissions are not included except when required by state or federal regulations. Maximum potential emissions were calculated based on the following assumptions:

- Firing the equivalent of 6,600 ton/yr of biomass with a heating value of 4,300 Btu/lb at 50% moisture;
- Firing 500,000 gal/yr of propane in the boilers; and
- Operating the Front Street Generator and the Olsen Generator for 100 hrs/yr each of non-emergency operation.

This information does not represent a comprehensive list of license restrictions or permissions. That information is provided in the Order section of this license.

Total Licensed Annual Emissions for the Facility
Tons/year
 (used to calculate the annual license fee)

	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	VOC
Biomass Boilers	6.2	6.2	6.2	0.7	6.2	17.0	0.5
Distillate Boilers	2.4	2.4	2.4	-	4.3	1.1	0.1
Propane Boilers	1.1	1.1	1.1	-	3.3	1.9	0.3
Front Street Generator	-	-	-	-	0.4	0.1	-
Olsen Generator	-	-	-	-	0.2	0.1	-
Total TPY	9.7	9.7	9.7	0.7	14.4	20.2	0.9

Pollutant	Tons/year
Single HAP	7.9
Total HAP	19.9

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
PM _{2.5}	15
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.

This determination is based on information provided by the applicant regarding licensed emission units. If the Department determines that any parameter (e.g., stack size, configuration, flow rate, emission rates, nearby structures, etc.) deviates from what was included in the application, the Department may require UMF to submit additional information and may require an ambient air quality impact analysis at that time.

ORDER

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 A-603-71-M-R/A subject to the following conditions.

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

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S. § 347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to beginning actual construction of a modification, unless specifically provided for in Chapter 115. [06-096 C.M.R. ch. 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 C.M.R. ch. 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 C.M.R. ch. 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S. § 353-A. [06-096 C.M.R. ch. 115] Payment of the annual air

emission license fee for UMF is due by the end of May of each year. [38 M.R.S. § 353-A(3)]

- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 C.M.R. ch. 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 C.M.R. ch. 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 C.M.R. ch. 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06--096 C.M.R. ch. 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 C.M.R. ch. 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department, the licensee shall:
 - A. Perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 1. Within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 2. Pursuant to any other requirement of this license to perform stack testing.
 - B. Install or make provisions to install test ports that meet the criteria of 40 C.F.R. Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

- C. Submit a written report to the Department within thirty (30) days from date of test completion.
[06-096 C.M.R. ch. 115]
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- A. Within thirty (30) days following receipt of the written test report by the Department, or another alternative timeframe approved by the Department, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department; and
- B. The days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
- C. The licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
[06-096 C.M.R. ch. 115]
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or license requirement. [06-096 C.M.R. ch. 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 C.M.R. ch. 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the

Department may reasonably require to determine the licensee's compliance status.
[06-096 C.M.R. ch. 115]

- (16) The licensee shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S. § 605).

SPECIFIC CONDITIONS

(17) **Facility-Wide Fuel Usage Limits**

A. Fuel: Propane

UMF is limited to a facility-wide use of no more than 500,000 gal/year of propane fuel, on a 12-month rolling total basis. The propane fired in Boiler #1 and in Boilers H012874 and H012875 shall be counted towards the facility-wide propane fuel limit of 500,000 gal/yr on a 12-month rolling total basis. [06-096 C.M.R. ch. 115, BPT]

B. Fuel: Biomass

The combined total amount of biomass fired in Boilers #1 and #2 shall not exceed the equivalent of 6,600 ton/yr (at 50% moisture) on a 12-month rolling total basis. [06-096 C.M.R. ch. 115, BPT]

C. Compliance Demonstration

Compliance with the above fuel use limits shall be demonstrated by fuel records showing the quantity and type of fuel delivered. Records of annual fuel use for each fuel shall be kept on a monthly and 12-month rolling total basis. [06-096 C.M.R. ch. 115, BPT]

(18) **Heating Plant Boilers (Boilers #1 and #2)**

A. Fuel

Boiler #1 is licensed to fire biomass and propane. Boiler #2 is licensed to fire biomass.
[06-096 C.M.R. ch. 115, BPT]

B. Emissions shall not exceed the following:

Emission Unit	Fuel	Pollutant	lb/MMBtu	Origin and Authority
Boiler #1	Biomass	PM	0.070	40 C.F.R. Part 63, Subpart JJJJJ, Table 1
Boiler #1	Propane	PM	0.05	06-096 C.M.R. ch. 115, BPT
Boiler #2	Biomass	PM	0.22	06-096 C.M.R. ch. 115, BPT

C. Emissions shall not exceed the following [06-096 C.M.R. ch. 115, BPT]:

Emission Unit	Fuel	PM (lb/hr)	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	Biomass	1.46	1.46	1.46	0.52	4.60	12.54	0.36
Boiler #1	Propane	1.05	1.05	1.05	0.01	3.00	1.73	0.23
Boiler #2	Biomass	2.18	2.18	2.18	0.25	2.18	5.94	0.17

D. Visible Emissions from Boiler #1

Visible emissions from Boiler #1 shall not exceed 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a continuous three-hour period when visible emissions shall not exceed 30%, and except for periods of biomass-fired startup, shutdown, or malfunction during which time UMF shall either meet the normal operating visible emissions standard or the following alternative visible emissions standard.

During periods of biomass-fired startup, shutdown, or malfunction, visible emissions from Boiler #1 shall not exceed 30% opacity on a six-minute block average basis, except for no more than two six-minute block averages in a three-hour period where visible emissions shall not exceed 40% opacity. This alternative visible emissions standard shall not be utilized for more than two hours (20 consecutive six-minute block averages) per event. If this alternative visible emissions standard is utilized, UMF shall keep records of the date, time, and duration of all startup, shutdown, and malfunction events and provide them to the Department upon request.

[A-603-71-J-A (issued 05/18/2015), BACT and 06-096 C.M.R. ch. 101, § 4(A)(5)(a)]

E. Visible Emissions from Boiler #2

Visible emissions from Boiler #2 shall not exceed 30% opacity on a six-minute block average basis, except for periods of startup, shutdown, or malfunction during which time UMF shall either meet the normal operating visible emissions standard or the following alternative visible emissions standard.

During periods of startup, shutdown, or malfunction, visible emissions shall not exceed 40% opacity on a six-minute block average basis. This alternative visible emissions standard shall not be utilized for more than two hours (20 consecutive six-minute block averages) per event. If this alternative visible emissions standard is utilized, UMF shall keep records of the date, time, and duration of all startup, shutdown, and malfunction events and provide them to the Department upon request.

[06-096 C.M.R. ch. 101, § 4(A)(5)(a)]

- F. UMF shall use an ESP to control PM emissions from Boiler #1 when firing biomass except for periods of startup and shutdown. The ESP is not required to be operated during periods when only propane is being fired in the boiler. UMF shall keep records of all dates and times when Boiler #1 is operated firing only propane. [A-603-71-J-A (issued 05/18/2015), BACT]
- G. UMF shall comply with all requirements of 40 C.F.R. Part 60, Subpart Dc applicable to Boiler #1 including, but not limited to, the following:
- UMF shall maintain records of the amounts of each fuel combusted during each calendar month. [40 C.F.R. § 60.48c(g)(2)]
- H. UMF shall comply with all requirements of 40 C.F.R. Part 63, Subpart JJJJJ applicable to Boilers #1 and #2 including, but not limited to, the following: [incorporated under 06-096 C.M.R. ch. 115, BPT]
1. As a new, biomass-fired boiler with a heat input capacity between 10 MMBtu/hr and 30 MMBtu/hr, Boiler #1 is subject to the following requirements:
 - a. Limit emissions of PM (filterable) to less than or equal to 0.070 lb/MMBtu, except during periods of startup or shutdown [40 C.F.R. Part 63, Subpart JJJJJ, Table 1];
 - b. Minimize the boiler's startup and shutdown periods and conduct startups and shutdowns according to the manufacturer's recommended procedures [40 C.F.R. Part 63, Subpart JJJJJ, Table 2];
 - c. Maintain a 30-day rolling average total secondary electric power of the ESP at or above the lowest hourly average total secondary electric power determined from the values of secondary voltage and secondary current to the ESP measured during the most recent performance stack test demonstrating compliance with the PM limit [40 C.F.R. Part 63, Subpart JJJJJ, Table 3]; and
 - d. Maintain the 30-day rolling average operating load of the boiler such that it does not exceed 110% of the average operating load recorded during the most recent performance stack test [40 C.F.R. Part 63, Subpart JJJJJ, Table 3].
 2. The facility shall implement a boiler tune-up program. [40 C.F.R. § 63.11223]
 - a. UMF shall conduct tune-ups on Boiler #1 and Boiler #2, each, at least once every five years with no more than 61 months between tune-ups except that the boiler is not required to startup for the sole purpose of conducting a tune-up. [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 for up to 72 months from the previous inspection for boilers with oxygen trim systems. [40 C.F.R. § 63.11223(b)(1)]
 - (2) Inspect the flame pattern, as applicable, 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, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted for up to 72 months from the previous inspection for boilers with oxygen trim systems. [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)]
 - (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. Tune-Up Report: A tune-up report shall be maintained onsite and submitted to the Department and EPA upon request. 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. Continuous Monitoring System (CMS) and Continuous Parameter Monitoring System (CPMS)
- a. UMF shall install, operate, and maintain a CPMS for Boiler #1. [40 C.F.R. § 63.11222(a)]

- b. UMF shall establish a site specific minimum total secondary electric power operating limit per 40 C.F.R. Part 63, Subpart JJJJJJ, Table 6.
 - c. UMF shall establish a unit-specific limit for maximum operating load (fuel feed rate or steam generation data) per 40 C.F.R. Part 63, Subpart JJJJJJ, Table 6.
 - d. UMF shall continuously monitor the total secondary electric power and reduce this data to 30-day rolling averages to demonstrate compliance with the limitation on the minimum total secondary electric power per 40 C.F.R. Part 63, Subpart JJJJJJ, Table 7.
 - e. UMF shall continuously monitor the boiler operating load and reduce this data to 30-day rolling averages to demonstrate compliance with the limitations on the minimum operating load per 40 C.F.R. Part 63, Subpart JJJJJJ, Table 7.
 - f. UMF shall prepare a site-specific monitoring plan that addresses the requirements outlined in 40 C.F.R. § 63.11224(c).
 - g. The CPMS shall be continuously operated in accordance with the site-specific monitoring plan at all times that Boiler #1 is operating and firing biomass except for periods of monitoring system malfunctions or out-of-control periods, repairs associated with the monitoring system malfunctions or out-of-control periods, and required monitoring system quality assurance or quality control activities including, as applicable, calibration checks, required zero and span adjustments, and scheduled CMS maintenance as defined in UMF's site-specific monitoring plan. [40 C.F.R. § 63.11221(b)]
 - h. The CPMS shall complete a minimum of one cycle of operation every 15 minutes. UMF shall have data values for a minimum of four successive cycles of operation representing each of the four 15-minute periods in an hour, or at least two 15-minute data values during an hour when CPMS calibration, quality assurance, or maintenance activities are being performed, to have a valid hour of data. [40 C.F.R. § 63.11224(d)(1)]
 - i. UMF shall calculate hourly arithmetic averages from each hour of CPMS data and determine the 30-day rolling average of all recorded readings. [40 C.F.R. § 63.11224(d)(2)]
4. Performance Tests
- a. UMF shall conduct a performance stack test for PM in accordance with 40 C.F.R. Part 63, Subpart JJJJJJ, Table 4 no later than February 28, 2029, and every three years thereafter with no more than 37 months between tests. [40 C.F.R. § 63.11220]
 - b. If the results of any performance stack test are less than 50% of the PM emission limit, UMF may conduct subsequent performance stack tests every five years with no more than 61 months between tests. [40 C.F.R. § 63.11220]
 - c. If results of an every-five-years performance test show PM emissions greater than half of the PM emission limit, the frequency of subsequent performance tests must revert back to every three years with no more than 37 months between tests. [40 C.F.R. § 63.11220(b)(4)]

- d. UMF shall conduct stack tests at the representative operating load conditions while burning the type of fuel (or mixture of fuels) that have the highest emissions potential. [40 C.F.R. § 63.11212(c)]
 - e. UMF shall conduct a minimum of three separate test runs for each performance stack test. [40 C.F.R. § 63.11212(d)]
5. Notification and Reports

a. Performance Test Report

Within 60 days after completing each performance test, UMF shall submit the results of the performance test to the EPA's Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>). [40 C.F.R. § 63.1125(e)(1)]

b. Notification of Compliance Status

A Notification of Compliance Status shall be submitted to EPA no later than 60 days following the completion of the performance stack test. [40 C.F.R. § 63.11225(a)(4)] EPA requires submission of Notification of Compliance Status reports for stack tests through their electronic reporting system. [40 C.F.R. § 63.11225(a)(4)(vi)]

c. Compliance Report

(1) For every five-year compliance period of Boiler #2, UMF shall prepare a compliance report shall be prepared by March 1st of the following year to document the information below for the five-year period. 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.”
 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.”
- (2) UMF shall prepare an annual compliance report for Boiler #1 by March 1st of the following year. The report shall be maintained by the source and submitted to the Department and/or to the EPA upon request, unless the source experiences any deviations from the applicable requirements of this Subpart during the previous calendar year, then the report must be submitted to the Department and to the EPA by March 15th. The report must include the items contained in § 63.11225(b)(1) – (4), 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.”
 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.”
 - (v) If the sources experiences any deviations from the applicable requirements during the reporting period, include a description of deviations, the time periods during which the deviations occurred, and the corrective actions taken; and
 - (vi) The total fuel use by each affected boiler subject to an emission limit for each calendar month within the reporting period.

6. Recordkeeping

- a. Records shall be maintained consistent with the requirements of 40 C.F.R. Part 63, Subpart JJJJJ 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.
- b. Records shall be in a form suitable and readily available for expeditious review. Each record must be kept for 5 years following the date of each recorded action. Each record must be kept on-site or be accessible from a central location by computer or other means that instantly provides access at the site for at least 2 years after the date of each recorded action. The records may be maintained off-site for the remaining 3 years. [40 C.F.R. § 63.11225(d)] Note: Standard Condition (8) of this license requires all records be retained for six years; therefore, the five-year record retention requirement of Subpart JJJJJ is satisfied by compliance with the more stringent six-year requirement.

(19) **Campus Heating Boilers**

A. Fuel [06-096 C.M.R. ch. 115, BPT]

1. Campus Heating Boilers H011573, H011574, H011583, H011584, and H011586 are licensed to fire distillate fuel.
2. Campus Heating Boilers H012874 and H012875 are licensed to fire propane.

B. Emissions shall not exceed the following [06-096 C.M.R. ch. 115, BPT]:

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
H011573	0.13	0.13	0.13	-	0.23	0.06	-
H011574	0.13	0.13	0.13	-	0.23	0.06	-
H011583	0.10	0.10	0.10	-	0.17	0.04	-
H011584	0.10	0.10	0.10	-	0.17	0.04	-
H011586	0.10	0.10	0.10	-	0.17	0.04	-
H012874	0.12	0.12	0.12	-	0.33	0.19	0.03
H012875	0.12	0.12	0.12	-	0.33	0.19	0.03

- C. Visible emissions from boilers H011573, H011574, H011583, H011584, and H011586 shall each not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(A)(2)]
- D. Visible emissions from boilers H012874 and H012875 shall each not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(A)(3)]
- E. UMF shall comply with all requirements of 40 C.F.R. Part 63, Subpart JJJJJ applicable to boilers H011573 and H011574 including, but not limited to, the following: [incorporated under 06-096 C.M.R. ch. 115, BPT]
1. The facility shall implement a boiler tune-up program. [40 C.F.R. § 63.11223]
 - a. UMF shall conduct tune-ups on boilers H011573 and H011574, each, at least once every five years with no more than 61 months between tune-ups except that the boiler is not required to startup for the sole purpose of conducting a tune-up. [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 for up to 72 months from the previous inspection for oil fired boilers less than or equal to 5 MMBtu/hour. [40 C.F.R. § 63.11223(b)(1)]
 - (2) Inspect the flame pattern, as applicable, 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, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the 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. [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)]
 - (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. Tune-Up Report: A tune-up report shall be maintained onsite and submitted to the Department and EPA upon request. The report shall contain the following information:
 - (4) 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;
 - (5) A description of any corrective actions taken as part of the tune-up of the boiler; and
 - (6) 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)]

2. Compliance Report

For every five-year compliance period, UMF shall prepare a compliance report by March 1st of the following year to document the information below for the five-year period. 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 this Subpart;
- 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;
- 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."

3. Recordkeeping

- a. 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.
- b. Records shall be in a form suitable and readily available for expeditious review. Each record must be kept for 5 years following the date of each recorded action. Each record must be kept on-site or be accessible from a central location by computer or other means that instantly provides access at the site for at least 2 years after the date of each recorded action. The records may be maintained off-site for the remaining 3 years. [40 C.F.R. § 63.11225(d)] Note: Standard Condition (8) of this license requires all records be retained for six years; therefore, the five-year record retention requirement of Subpart JJJJJJ is satisfied by compliance with the more stringent six-year requirement.

(20) **Front Street and Olsen Generators**

- A. Each of the emergency generators shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 C.M.R. ch. 115, BPT]
- B. UMF shall keep records that include maintenance conducted on the engines and the hours of operation of each engines recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason the engine was in operation during each time. [06-096 C.M.R. ch. 115, BPT]
- C. The fuel sulfur content for the Olsen Generator and Front Street Generator shall be limited to 0.0015% sulfur by weight. Compliance shall be demonstrated by fuel delivery receipts from the supplier, fuel supplier certification, certificate of analysis, or testing of the fuel in the tank on-site. [06-096 C.M.R. ch. 115, BPT]

D. Emissions shall not exceed the following [06-096 C.M.R. ch. 115, BPT]:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Front Street Generator	0.19	0.19	0.19	-	7.14	1.54	0.58
Olsen Generator	0.12	0.12	0.12	-	4.32	0.93	0.35

E. Visible Emissions

1. Visible emissions from the Front Street Generator shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, §4(A)(4)]
2. Visible emissions from the Olsen Generator shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time UMF shall either meet the normal operating visible emissions standard or the following work practice standards and alternative visible emissions standard.
 - a. The duration of the startup shall not exceed 30 minutes per event;
 - b. Visible emissions shall not exceed 50% opacity on a six-minute block average basis; and
 - c. UMF shall keep records of the date, time, and duration of each startup.

Use of the work practice standards and alternative visible emissions standard in lieu of the normal operating standard is limited to no more than once per day.

Note: This does not limit the engine to one startup per day. It only limits the use of the alternative emission standard to once per day.

[06-096 C.M.R. ch. 101, § 4(A)(4)]

- F. The Front Street Generator shall meet the applicable requirements of 40 C.F.R. Part 60, Subpart IIII, including the following: [incorporated under 06-096 C.M.R. ch. 115, BPT]
 1. Manufacturer Certification
The engine shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in § 60.4202. [40 C.F.R. § 60.4205(b)] The Certificate of Conformity was provided with the January 2023 renewal application for the Front Street Generator.
 2. Ultra-Low Sulfur Fuel
The fuel fired in the engine shall not exceed 15 ppm sulfur (0.0015% sulfur). Compliance with the fuel sulfur content limit shall be demonstrated by fuel delivery receipts from the supplier, fuel supplier certification, certificate of analysis, or

testing of the fuel in the tank on-site. [40 C.F.R. § 60.4207(b) and 06-096 C.M.R. ch. 115, BPT]

3. Non-Resettable Hour Meter

A non-resettable hour meter shall be installed and operated on the engine. [40 C.F.R. § 60.4209(a)]

4. Annual Time Limit for Maintenance and Testing

a. As an emergency engine, the unit shall be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). These limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written log) of all engine operating hours. [40 C.F.R. § 60.4211(f) and 06-096 C.M.R. ch. 115, BPT]

b. UMF shall keep records that include the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the number of hours the unit operated for emergency purposes, the number of hours the unit operated for non-emergency purposes, and the reason the engine was in operation during each time. [40 C.F.R. § 60.4214(b)]

5. Operation and Maintenance

The Front Street Generator shall be operated and maintained according to the manufacturer's emission-related written instructions. UMF may only change those emission-related settings that are permitted by the manufacturer. [40 C.F.R. § 60.4211(a)]

UMF shall have available for review by the Department a copy of the manufacturer's emission-related written instructions for engine operation and maintenance. [06-096 C.M.R. ch. 115, BPT]

G. Emergency generators and/or fire pumps are only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Emergency generators and/or fire pumps are not to be used for prime power when reliable offsite power is available; nor to operate or to be contractually obligated to be available in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity. [06-096 C.M.R. ch. 115, BPT]

(21) Fugitive Emissions [06-096 C.M.R. ch. 101, § 4(C)]

- A. UMF shall not cause emissions of any fugitive dust during any period of construction, reconstruction, or operation without taking reasonable precautions. Such reasonable precautions shall be included in the facility's continuing program of best management practices for suppression of fugitive particulate matter. See 06-096 C.M.R. ch. 101, § 4(C) for a list of potential reasonable precautions.
- B. UMF shall not cause or allow visible fugitive emissions within 20 feet of ground level, measured as any level of opacity and not including water vapor, beyond the legal boundary of the property on which such emissions occur. Compliance with this standard shall be determined pursuant to 40 C.F.R. Part 60, Appendix A, Method 22.

(22) **Additional Information**

If the Department determines that any parameter value pertaining to construction and operation of the emissions units, including but not limited to stack size, configuration, flow rate, emission rates, nearby structures, etc., deviates from what was submitted in the application or ambient air quality impact analysis for this air emission license, UMF may be required to submit additional information. Upon written request from the Department, UMF shall provide information necessary to demonstrate AAQS will not be exceeded, potentially including submission of an ambient air quality impact analysis or an application to amend this air emission license to resolve any deficiencies and ensure compliance with AAQS. Submission of this information is due within 60 days of the Department's written request unless otherwise stated in the Department's letter. [06-096 C.M.R. ch. 115, § 2(O)]

DONE AND DATED IN AUGUSTA, MAINE THIS 11th DAY OF MAY, 2026.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:  for
MELANIE LOYZIM, COMMISSIONER

The term of this license shall be ten (10) years from the signature date above.

[Note: If a renewal application, determined as complete by the Department, is submitted prior to expiration of this license, then pursuant to Title 5 M.R.S. § 10002, all terms and conditions of the license shall remain in effect until the Department takes final action on the license renewal application.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: January 17, 2023

Date of application acceptance: January 24, 2023

This Order prepared by Zac Hicks, Bureau of Air Quality.