



DEPARTMENT ORDER

University of Maine System
University of Maine at Fort Kent
Aroostook County
Fort Kent, Maine
A-604-71-L-A

Departmental
Findings of Fact and Order
Air Emission License
After-the-Fact Amendment #2

FINDINGS OF FACT

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

I. REGISTRATION

A. Introduction

The University of Maine System's Fort Kent campus (UMFK) was issued Air Emission License A-604-71-J-R/M on August 13, 2018, for the operation of emission sources associated with their educational campus facility. The license was subsequently amended on September 10, 2020 (A-604-71-K-A) to install four new propane boilers.

The equipment addressed in this license amendment is located at 23 University Drive, Fort Kent, Maine.

UMFK has requested an after-the-fact amendment to their license in order to make the following changes:

1. Add two boilers to the Campus Sports Center;
2. Add an emergency generator to the Campus Sports Center;
3. Add an emergency generator to Nowland Dining Hall; and
4. Remove five distillate fuel-fired boilers and oil-fired boiler fuel limit from the license.

B. Emission Equipment

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

Boilers

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type	Date of Manuf.	Date of Install.	Stack #
1PE2 ^A	3.22	22.9 gal/hr	Distillate Fuel	1975	1975	2PE
2CYR ^A	3.08	22.0 gal/hr	Distillate Fuel	1980	1980	2CYR

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type	Date of Manuf.	Date of Install.	Stack #
2AUD ^A	1.40	10 gal/hr	Distillate Fuel	1970	1970	2CYR
5BL1 ^A	1.54	11 gal/hr	Distillate Fuel	1988	1988	5BL
5BL2 ^A	1.33	9.5 gal/hr	Distillate Fuel	1988	1988	5BL
Sports Center Boiler 1 (SCB1) ^B	1.60	17.68 gal/hr	Propane	2023	2023	Sports Center Propane Boiler Vent Stack 1
Sports Center Boiler 2 (SCB2) ^B	1.60	17.68 gal/hr	Propane	2023	2023	Sports Center Propane Boiler Vent Stack 2

^A Removed from license

^B New to license

Stationary Engines

Equipment	Max. Input Capacity	Rated Output Capacity	Fuel Type	Firing Rate (gal/hr)	Date of Manuf.	Date of Install.
Sports Center Emergency Generator (SC E-Gen #1) ^B	0.83 MMBtu/hr	75 kW	Distillate Fuel	5.9 gal/hr	1999	2000
Nowland Emergency Generator (Nowland E-Gen #1) ^B	0.88 MMBtu/hr	80 kW	Liquified Petroleum Gas / Propane	344 scf/hr 9.62 gal/hr	2003	2024

^B New to license

C. Definitions

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.

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	13.2	10.2	-3.0	100
PM ₁₀	13.2	10.2	-3.0	100
PM _{2.5}	-	10.2	-	100
SO ₂	18.1	3.9	-14.2	100
NO _x	22.3	20.5	-1.8	100
CO	18.6	18.9	+0.3	100
VOC	1.0	1.1	+0.1	100

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

E. Facility Classification

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

- As a synthetic minor source of air emissions for criteria pollutants, because UMFK is subject to license restrictions that keep facility emissions below major source thresholds for NO_x; 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 new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100. BACT is a top-down approach to selecting air emission controls considering economic, environmental, and energy impacts.

B. Boilers SCB1 and SCB2

UMFK operates boilers SCB1 and SCB2 for facility heating. Each boiler is a Brute MagnaTech Model SMGH1600PJF3KA, manufactured by Bradford White, and rated at 1.60 MMBtu/hr and firing propane. Boilers SCB1 and SCB2 were installed in 2023 and each boiler exhausts through its own stack.

1. BACT Findings

Following is a BACT analysis for control of emissions from boilers SCB1 and SCB2.

a. Particulate Matter (PM, PM₁₀, PM_{2.5})

UMFK has proposed to burn only low-ash content fuel (propane) in the boilers. Additional add-on pollution controls are not economically feasible.

BACT for PM/PM₁₀/PM_{2.5} emissions from boilers SCB1 and SCB2 is the combustion of propane and the emission limits listed in the tables below.

b. Sulfur Dioxide (SO₂)

UMFK has proposed to fire only propane. The use of this inherently low sulfur content fuel results in minimal emissions of SO₂, and additional add-on pollution controls are not economically feasible.

BACT for SO₂ emissions from boilers SCB1 and SCB2 is the use of propane and the emission limits listed in the tables below.

c. Nitrogen Oxides (NO_x)

UMFK considered several control strategies for the control of NO_x including Selective Catalytic Reduction (SCR), flue gas recirculation (FGR), and low-NO_x burners.

SCR is a technically feasible control technology for minimizing NO_x. The method includes injection of a NO_x reducing agent, typically ammonia or urea, into the boiler combustion gases, where the reagent reacts with NO_x to form nitrogen and water. The technology is effective within a specific temperature range, 500 – 1,200 °F. However, SCR has a negative environmental impact of emissions of unreacted ammonia. In addition, due to the initial capital cost and the annual operating costs, these systems are typically only considered cost effective for units larger than boilers SCB1 and SCB2.

FGR and low-NO_x burners are available for control of NO_x emissions. Given the small size of these units, the use of aftermarket burners or installation of FGR would not be economically feasible.

BACT for NO_x emissions from boilers SCB1 and SCB2 is the use of modern boiler-burner design and the emission limits listed in the tables below.

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

UMFK considered several control strategies for the control of CO and VOC including oxidation catalysts, thermal oxidizers, and use of modern boiler-burner design.

Oxidation catalysts and thermal oxidizers both have high capital, maintenance, and operational costs considering the size of the boiler in question. These controls were determined to be economically infeasible.

BACT for CO and VOC emissions from boilers SCB1 and SCB2 is the use of modern boiler-burner design and the emission limits listed in the tables below.

e. Emission Limits

The BACT emission limits for boilers SCB1 and SCB2 were based on the following:

Propane

- PM/PM₁₀/PM_{2.5} – 0.05 lb/MMBtu, 06-096 C.M.R. ch. 115, BACT
- 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 BACT emission limits for boilers SCB1 and SCB2 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)
SCB1	0.08	0.08	0.08	-	0.23	0.13	0.02
SCB2	0.08	0.08	0.08	-	0.23	0.13	0.02

2. Visible Emissions

Visible emissions from the boilers SCB1 and SCB2 shall each not exceed 10% opacity on a six-minute block average basis.

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

Due to the size of the units, boilers SCB1 and SCB2 are not subject to *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40c]

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

Boilers SCB1 and SCB2 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)]

C. Emergency Generators SC E-Gen #1 and Nowland E-Gen #1

UMFK installed an emergency generator at the Sports Center (SC E-Gen #1) in 2000 and an emergency generator at Nowland Dining Hall (Nowland E-Gen #1) in 2024. SC E-Gen #1 is an Olympian Model D75P1 with a maximum heat input of 0.83 MMBtu/hr firing distillate fuel. Nowland E-Gen #1 is an Olympian Model G80F3_I with a maximum heat input of 0.88 MMBtu/hr firing LPG/propane. The emergency generators were manufactured in 1999 and 2003, respectively.

1. BACT Findings

Following is a BACT analysis for control of emissions from SC E-Gen #1 and Nowland E-Gen #1.

a. Particulate Matter (PM, PM₁₀, PM_{2.5})

UMFK has proposed to burn only low-ash content fuels (propane and distillate fuel) in the emergency engines. Additional add-on pollution controls are not economically feasible for units of this size.

BACT for PM/PM₁₀/PM_{2.5} emissions from SC E-Gen #1 and Nowland E-Gen #1 is the use of low-ash content fuels and the emission limits listed in the tables below.

b. Sulfur Dioxide (SO₂)

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

BACT for SO₂ emissions from SC E-Gen #1 and Nowland E-Gen #1 is the use of propane and ultra-low-sulfur distillate fuel and the emission limits listed in the tables below.

c. Nitrogen Oxides (NO_x)

UMFK considered several control strategies for the control of NO_x including Selective Catalytic Reduction (SCR) and Selective Non-Catalytic Reduction (SNCR).

Both SCR and SNCR are technically feasible control technologies for minimizing NO_x. Both methods include injection of a NO_x reducing agent, typically ammonia or urea, into the engine combustion gases, where the reagent reacts with NO_x to form nitrogen and water. Each technology is effective within a specific temperature range, 500 – 1,200 °F for SCR and 1,400 – 1,600 °F for SNCR. However, both SCR and SNCR have a negative environmental impact of emissions of unreacted ammonia. In addition, due to the initial capital cost and the annual operating costs, these systems are typically only considered cost effective for units larger than SC E-Gen #1 and Nowland E-Gen #1.

BACT for NO_x emissions from SC E-Gen #1 and Nowland E-Gen #1 are proper operation of the engines and the emission limits listed in the tables below.

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

UMFK considered several control strategies for the control of CO and VOC including oxidation catalysts and thermal oxidizers.

Oxidation catalysts and thermal oxidizers both have high capital, maintenance, and operational costs considering the size of the engines in question. These controls were determined to be economically infeasible.

BACT for CO and VOC emissions from SC E-Gen #1 and Nowland E-Gen #1 is the proper operation of the engines and the emission limits listed in the tables below.

e. Emission Limits

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

Distillate Fuel – SC E-Gen #1

PM/PM ₁₀ /PM _{2.5}	–	0.31 lb/MMBtu from AP-42 Table 3.3-1 dated 4/25
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	–	0.35 lb/MMBtu from AP-42 Table 3.3-1 dated 4/25

Visible Emissions— 06-096 C.M.R. ch. 101

LPG/Propane – Nowland E-Gen #1

PM/ PM₁₀/PM_{2.5} – 0.0194 lb/MMBtu from AP-42 Table 3.2-3 dated 10/24
 SO₂ – 5.88E-04 lb/MMBtu from AP-42 Table 3.2-3 dated 10/24
 NO_x – 2.27 lb/MMBtu from AP-42 Table 3.2-3 dated 10/24
 CO – 3.51 lb/MMBtu from AP-42 Table 3.2-3 dated 10/24
 VOC – 0.03 lb/MMBtu from AP-42 Table 3.2-3 dated 10/24
 Visible Emissions— 06-096 C.M.R. ch. 101

The BACT emission limits for the 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)
SC E-Gen #1	0.10	0.10	0.10	-	3.66	0.79	0.30
Nowland E-Gen #1	0.02	0.02	0.02	-	2.00	3.09	0.03

Visible emissions from SC E-Gen #1 shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time UMFK shall either meet the normal operating visible emissions standard or the following work practice standards and alternative visible emissions standard.

- (1). The duration of the startup shall not exceed 30 minutes per event;
- (2). Visible emissions shall not exceed 50% opacity on a six-minute block average basis; and
- (3). UMFK 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.

Visible emissions from Nowland E-Gen #1 shall not exceed 20% opacity on a six-minute block average basis.

Each of the emergency generators shall 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, UMFK 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

SC E-Gen #1 was installed prior to the effective date of *Stationary Generators*, 06-096 C.M.R. ch. 169 and is therefore exempt from this rule pursuant to section 1.

Stationary Generators, 06-096 C.M.R. ch. 169 (Chapter 169), is applicable to Nowland E-Gen #1. It is an emergency generator powered by an engine with a rated output of less than 1,000 brake horsepower (747 kW). Chapter 169 identifies emission standards for generator engines subject to this chapter and stack height requirements for certain generator engines subject to this chapter.

a. Chapter 169 Emission Standards Requirements

For Nowland E-Gen #1, UMFK shall comply with the emission standards for emergency generators by complying with the applicable standards contained in 40 C.F.R. Part 63, Subpart ZZZZ. However, Nowland E-Gen #1 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 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). As such, there are no applicable emission standards pursuant to Chapter 169 for this unit. [06-096 C.M.R. ch. 169, § 4(B)(1)]

b. Chapter 169 Stack Height Requirements

Chapter 169 identifies stack height requirements for any stack used to exhaust a generator engine or combination of generator engines with a combined rated output equal to or greater than 1,000 brake horsepower (747 kW). Individual generator engines with a maximum power capacity of less than 300 kW are not included in the assessment of the combined generator power capacity exhausted through a common stack. [06-096 C.M.R. ch. 169, § 6]

There are no stack height requirements in Chapter 169 applicable to Nowland E-Gen #1 because it exhausts through its own stack and its rated output is less than 1,000 brake horsepower (747 kilowatts). [06-096 C.M.R. ch. 169, § 6]

3. New Source Performance Standards (NSPS)

Due to the date of manufacture of the compression ignition emergency engine listed above, SC E-Gen #1 not subject to the New Source Performance Standards (NSPS) *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CIICE)*, 40 C.F.R. Part 60, Subpart IIII since the unit was manufactured prior to April 1, 2006. [40 C.F.R. § 60.4200]

Due to the date of manufacture of the spark ignition emergency engine listed above, Nowland E-Gen #1 is not subject to the New Source Performance Standards (NSPS) *Standards of Performance for Spark Ignition Internal Combustion Engines (SI ICE)*, 40 C.F.R. Part 60, Subpart JJJJ since the unit was manufactured prior to January 1, 2009. [40 C.F.R. § 60.4230]

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

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 emergency engines listed above. The units are considered existing, emergency stationary reciprocating internal combustion engines at an area HAP source. However, they are considered exempt from the requirements of 40 C.F.R. Part 63, Subpart ZZZZ since they are categorized as institutional emergency engines and they do not operate or are 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.

D. Oil-Fired Boilers

UMFK has stated that 5 of their oil-fired boilers have been either removed or permanently shut down and requested their removal from this license. Boilers 2CYR, 2AUD, 5BL1, 5BL2, and 1PE2 shall be removed from the Order of this license.

Since the only remaining oil-fired boiler is LDG1, the fuel limit will be removed from the oil-fired boilers. LDG1 can only combust 87,600 gallons per year, making the 500,000 gal/yr distillate fuel cap for Oil-Fired Boilers unnecessary.

E. 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 3,000 tons/yr of wood pellets at 12% moisture in the Wood Boilers;
- Operating Generator #2, SC E-Gen #1, and Nowland E-Gen #1 for 100 hrs/yr each of non-emergency operation;
- Operating boilers LDG1, SCB1, SCB2, LPG #1, #2, #3, and #4 for 8,760 hr/yr each.

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
Oil Boilers	0.5	0.5	0.5	3.1	0.9	0.2	-
Wood Boilers	7.1	7.1	7.1	0.6	11.6	14.3	0.4
Generator #2	-	-	-	-	0.7	0.1	0.1
LPG #1, #2, #3, and #4	1.8	1.8	1.8	-	5.0	2.9	0.4
SCB1	0.4	0.4	0.4	-	1.0	0.6	0.1
SCB2	0.4	0.4	0.4	-	1.0	0.6	0.1
SC E-Gen #1	-	-	-	-	0.2	-	-
Nowland E-Gen #1	-	-	-	-	0.1	0.2	-
Total TPY	10.2	10.2	10.2	3.9	20.5	18.9	1.1

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 amendment.

This determination is based on information provided by the applicant regarding the expected operation of the newly 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 UMFK 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 Amendment A-604-71-L-A subject to the conditions found in Air Emission License A-604-71-J-R/M and in the amendment A-604-71-K-A, and the following conditions.

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

SPECIFIC CONDITIONS

The following shall replace Specific Conditions (17) and (18) of Air Emission License A-604-71-J-R/M:

(17) Oil-Fired Boilers

A. Fuel

1. UMFK shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm). The boilers may fire distillate fuel with a maximum sulfur content not to exceed 0.5% by weight that was purchased or otherwise obtained for use at the facility prior to July 1, 2018. This higher sulfur fuel may be fired alone or blended with 15 ppm or lower sulfur fuel purchased by the facility. [06-096 C.M.R. ch. 115, BPT]
2. Compliance shall be demonstrated by fuel records showing the quantity, type, and percent sulfur of the fuel delivered. Fuel sulfur content compliance shall be demonstrated by fuel delivery receipts from the supplier, a statement from the supplier that the fuel delivered meets Maine's fuel sulfur content standards, certificate of analysis, or testing of fuel in the tank on-site. [06-096 C.M.R. ch. 115, BPT]

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)
LDG1	0.02	0.02	0.02	0.70	0.22	0.05	0.01

C. Visible emissions from LDG1 shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(A)(2)]

(18) Boiler NESHAP Requirements

UMFK shall comply with all requirements of 40 C.F.R. Part 63, Subpart JJJJJ applicable to 1PE1, 009-B2, and 009-B3 including, but not limited to, the following: [incorporated under 06-096 C.M.R. ch. 115, BPT]

- A. The facility shall implement a boiler tune-up program. [40 C.F.R. § 63.11223]
1. UMFK shall conduct a tune-up on boilers 1PE1, 009-B2, and 009-B3 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]
 2. The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:
 - a. 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)]
 - b. 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)]
 - c. 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)]
 - d. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 C.F.R. § 63.11223(b)(4)]
 - e. 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)]
 - f. 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)]
 3. 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:
 - a. 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;
 - b. A description of any corrective actions taken as part of the tune-up of the boiler; and
 - c. 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. Compliance Report

For every five-year compliance period, UMFK 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)]

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."

C. 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)]:
 - a. Copies of notifications and reports with supporting compliance documentation;
 - b. Identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned;
 - c. Records of the occurrence and duration of each malfunction of each applicable boiler; and
 - d. Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.

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.

The following are new conditions:

(22) Boilers SCB1 and SCB2

- A. Boilers SCB1 and SCB2 shall only fire LPG/propane. [06-096 C.M.R. ch. 115, BACT]
- B. Emissions shall not exceed the following [06-096 C.M.R. ch. 115, BACT]:

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)
SCB1	0.08	0.08	0.08	-	0.23	0.13	0.02
SCB2	0.08	0.08	0.08	-	0.23	0.13	0.02

- C. Visible emissions from boilers SCB1 and SCB2 shall each not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(A)(3)]

(23) Emergency Generators SC E-Gen #1 and Nowland E-Gen #1

- 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, BACT]
- B. UMFK shall keep records that include maintenance conducted on SC E-Gen #1 and Nowland E-Gen #1 and the hours of operation of each engine 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, BACT]
- C. The fuel sulfur content for SC E-Gen #1 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, BACT]

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

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)
SC E-Gen #1	0.10	0.10	0.10	-	3.66	0.79	0.30
Nowland E-Gen #1	0.02	0.02	0.02	-	2.00	3.09	0.03

E. Visible Emissions

Visible emissions from SC E-Gen #1 shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time UMFK shall either meet the normal operating visible emissions standard or the following work practice standards and alternative visible emissions standard.

1. The duration of the startup shall not exceed 30 minutes per event;
2. Visible emissions shall not exceed 50% opacity on a six-minute block average basis; and
3. UMFK 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)]

Visible emissions from Nowland E-Gen #1 shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 4(A)(4)]

F. 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/BACT]

(24) **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, UMFK may be required to submit additional information. Upon written request from the Department, UMFK 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 27th DAY OF MAY, 2026.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:  for
MELANIE LOYZIM, COMMISSIONER

The term of this license amendment shall be ten (10) years from the issuance of Air Emission License A-604-71-J-R/M (issued 08/13/2018).

[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: March 13, 2026
Date of application acceptance: March 16, 2026

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