

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

#### **DEPARTMENT ORDER**

State of Maine, Bureau of General Services Kennebec County Augusta, Maine A-23-71-T-A Departmental
Findings of Fact and Order
Air Emission License
Amendment #3

#### 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

State of Maine, Bureau of General Services (BGS) was issued Air Emission License A-23-71-P-R/M on October 31, 2016, for the operation of emission sources associated with their state office complex. The license was subsequently amended as follows:

Amendment #	Date Issued	Brief Description
A-23-71-Q-A	October 3, 2019	• Replace Boilers #1 and #2 with MB Boilers #1, #2, and #3 at the Boiler House
		<ul> <li>Add an emergency generator (GL Generator #1) to the Greenlaw Building</li> <li>Add a Class IV-A (veterinary) incinerator to the</li> </ul>
A 22 71 C A	Navamban 20, 2022	Greenlaw Building
A-23-71-S-A	November 30, 2022	Add an emergency generator (GL Generator #2) to the Greenlaw Building
		• Clarify operational requirements of Incinerator #1

The equipment addressed in this license amendment is located at 40 Hospital Street, Augusta, Maine.

BGS has requested an amendment to their license in order to add an emergency generator and four boilers to the newly renovated Office of the Chief Medical Examiner building.

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# B. Emission Equipment

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

#### **Boilers**

				Date of	Date of	
Equipment	Max. Capacity	Max. Firing Rate	Fuel Type	Manuf.	Install.	Stack #
ME Boiler #1	1.5 MMBtu/hr	1,471 scf/hr	Natural Gas	2023	2025	
ME Boiler #2	1.5 MMBtu/hr	1,471 scf/hr	Natural Gas	2023	2025	ME Boiler
ME Boiler #3	1.5 MMBtu/hr	1,471 scf/hr	Natural Gas	2023	2025	Shaft
ME Boiler #4	1.5 MMBtu/hr	1,471 scf/hr	Natural Gas	2023	2025	

### **Stationary Engine**

	Max. Input	Rated Output		Firing Rate	Date of	Date of
Equipment	Capacity	Capacity	Fuel Type	(gal/hr)	Manuf.	Install.
ME Generator #1	9.85 MMBtu/hr	1,000 ekW	Distillate Fuel	71.9	2024	2025

# C. <u>Definitions</u>

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

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

*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:

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Pollutant	Current License (tpy)	Future License (tpy)	Net Change (tpy)	Significant Emissions Levels
PM	8.9	10.3	+1.4	100
$PM_{10}$	8.9	10.3	+1.4	100
PM <sub>2.5</sub>	8.9	10.3	+1.4	100
$SO_2$	1.1	1.1	0	100
$NO_x$	11.8	20.9	+9.1	100
CO	3.9	8.0	+4.1	100
VOC	0.9	1.1	+0.2	100

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

### E. Facility Classification

With the annual distillate fuel limit on MB Boilers #1-3 and the operating hours restriction on Generator #2, GL Generators #1 and #2, and ME Generator #1, the facility is licensed as follows:

- · As a synthetic minor source of air emissions for criteria pollutants, because BGS is subject to license restrictions that keep facility emissions below major source thresholds for NO<sub>x</sub>; 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. ME Boilers #1-#4

BGS plans to install ME Boilers #1 - #4 for heating the Chief Medical Examiner's Office building. The boilers are each rated at 1.5 MMBtu/hr and fire natural gas. The boilers will be installed in 2025 and exhaust through a combined flue shaft, ME Boiler Shaft. ME Boilers #1-4 will be constructed with low-NO<sub>x</sub> burners and oxygen trim systems.

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### 1. BACT Findings

The following is a BACT analysis for control of emissions from ME Boilers #1 - #4.

### a. Particulate Matter (PM, PM<sub>10</sub>, PM<sub>2.5</sub>)

BGS has proposed to burn only natural gas in the boilers. Additional add-on pollution controls are not economically feasible.

BACT for PM/PM<sub>10</sub>/PM<sub>2.5</sub> emissions from ME Boilers #1 - #4 is the emission limits listed in the tables below.

### b. Sulfur Dioxide (SO<sub>2</sub>)

BGS has proposed to fire only natural gas. The use of this fuel results in minimal emissions of SO<sub>2</sub>, and additional add-on pollution controls are not economically feasible.

BACT for SO<sub>2</sub> emissions from ME Boiler #1 - #4 is the use of natural gas and the emission limits listed in the tables below.

### c. Nitrogen Oxides (NO<sub>x</sub>)

BGS considered several control strategies for the control of NO<sub>x</sub> including Selective Catalytic Reduction (SCR), Selective Non-Catalytic Reduction (SNCR), water/steam injection, low-NO<sub>x</sub> burners, and use of oxygen trim systems.

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 boiler combustion gases, where the reagent reacts with  $NO_x$  to form nitrogen and water. Each technology is effective within a specific temperature range,  $500-1,200\,^{\circ}F$  for SCR and  $1,400-1,600\,^{\circ}F$  for SNCR. However, both SCR and SNCR have the 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 ME Boilers #1 - #4.

Water/steam injection and FGR can attain similar NO<sub>x</sub> reduction efficiencies through lowering burner flame temperature and thereby reducing thermal NO<sub>x</sub> formation. However, both control strategies reduce the boiler's fuel efficiency.

The use of low-NO<sub>x</sub> burners and oxygen trim systems on ME Boilers #1 - #4 has been determined to be feasible and has been selected as part of the BACT strategy.

BACT for  $NO_x$  emissions from ME Boilers #1 - #4 is the use of low- $NO_x$  burners, an oxygen trim system, and the emission limits listed in the tables below.

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

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BGS considered several control strategies for the control of CO and VOC including oxidation catalysts, thermal oxidizers, and use of an oxygen trim system.

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.

The use of an oxygen trim system has been determined to be feasible and has been selected as part of the BACT strategy for ME Boilers #1 - #4.

BACT for CO and VOC emissions from ME Boilers #1 - #4 is the use of an oxygen trim system and the emission limits listed in the tables below.

#### e. Emission Limits

The BACT emission limits for ME Boilers #1 - #4 were based on the following:

#### Natural Gas

PM/PM<sub>10</sub>/PM<sub>2.5</sub> – 0.05 lb/MMBtu, 06-096 C.M.R. ch. 115, BACT

 $SO_2$  - 0.6 lb/MMscf based on AP-42 Table 1.4-2 dated 7/98  $NO_x$  - 50 lb/MMscf based on AP-42 Table 1.4-1 dated 7/98

& low NO<sub>x</sub> burner factor

CO – 84 lb/MMscf based on AP-42 Table 1.4-1 dated 7/98 VOC – 5.5 lb/MMscf based on AP-42 Table 1.4-2 dated 7/98

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

The BACT emission limits for ME Boilers #1 - #4 are the following:

	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NOx	CO	VOC
Unit	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)
ME Boiler #1	0.08	0.08	0.08	ı	0.07	0.12	0.01
ME Boiler #2	0.08	0.08	0.08	ı	0.07	0.12	0.01
ME Boiler #3	0.08	0.08	0.08	-	0.07	0.12	0.01
ME Boiler #4	0.08	0.08	0.08	-	0.07	0.12	0.01

#### 2. Visible Emissions

Visible emissions from each boiler shall not exceed 10% opacity on a six-minute block average basis.

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

Due to the sizes of ME Boilers #1 - #4, they 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 JJJJJJ

ME Boilers #1 - #4 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 JJJJJJ. Natural gas-fired units are exempt from the requirements of this regulation. [40 C.F.R. §§ 63.11195(e)]

# C. ME Generator #1

BGS plans to install and operate an emergency generator at the Chief Medical Examiner's Office (ME Generator #1). The emergency generator is a generator set consisting of an engine and an electrical generator. ME Generator #1 has an engine rated at 9.85 MMBtu/hr which fires distillate fuel and was manufactured in 2024.

# 1. BACT Findings

The BACT emission limits for ME Generator #1 are based on the following:

PM/PM<sub>10</sub>/PM<sub>2.5</sub> – 0.12 lb/MMBtu from 06-096 C.M.R. ch. 103

SO<sub>2</sub> – Combustion of distillate fuel with a maximum sulfur content

not to exceed 15 ppm (0.0015% sulfur by weight)

NO<sub>x</sub> - 3.2 lb/MMBtu from AP-42 Table 3.4-1 dated 4/25 CO - 0.85 lb/MMBtu from AP-42 Table 3.4-1 dated 4/25 VOC - 0.09 lb/MMBtu from AP-42 Table 3.4-1 dated 4/25

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

The BACT emission limits for ME Generator #1 are the following:

Unit	Pollutant	lb/MMBtu
ME Generator #1	PM	0.12

	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	$SO_2$	NO <sub>x</sub>	CO	VOC
Unit	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)
ME Generator #1	0.79	0.79	0.79	0.02	31.52	8.37	0.89

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

BACT for the emergency generator includes recordkeeping of all maintenance conducted on the engine.

### 2. Chapter 169

Stationary Generators, 06-096 C.M.R. ch. 169 (Chapter 169), is applicable to ME Generator #1. It is an emergency generator powered by an engine with a rated output of greater 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 ME Generator #1, BGS has elected to comply with the emission standards for emergency generators by accepting a limit on total generator usage (emergency and non-emergency combined) of 500 hours/year (12-month rolling total basis). Compliance shall be demonstrated through recordkeeping of all generator operating times.

If there are periods of extended outage such as a natural disaster or other similar event outside BGS's control, BGS may apply to the Department for a temporary variance to exempt specific time periods from this annual hour limit. The Department Commissioner may, without hearing, issue that variance for a period of time not to exceed 30 days if, in his/her judgement, the variance is necessary to avoid immediate threat to public health, safety, or general welfare or to protect critical infrastructure.

# 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]

ME Generator #1 shall exhaust through a stack with a minimum height of 30 feet above ground level which is equivalent to at least 60% good engineering practice (GEP) stack height. [06-096 C.M.R. ch. 169, § 6(A)]

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#### 3. New Source Performance Standards

Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 C.F.R. Part 60, Subpart IIII is applicable to ME Generator #1 since the unit was ordered after July 11, 2005, and manufactured after April 1, 2006. [40 C.F.R. § 60.4200] By meeting the requirements of 40 C.F.R. Part 60, Subpart IIII, the unit also meets the requirements found in the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 C.F.R. Part 63, Subpart ZZZZ. [40 C.F.R. § 63.6590(c)]

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

a. Emergency Engine Designation and Operating Criteria

Under 40 C.F.R. Part 60, Subpart IIII, 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 IIII, resulting in the engine being subject to requirements applicable to **non-emergency** engines.

#### (1) Emergency Situation Operation (On-Site)

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

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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
    The engine 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)]
  - (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. BGS may only change those emission-related settings that are permitted by the manufacturer. [40 C.F.R. § 60.4211(a)]

BGS 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]

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### (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

BGS 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)]

For simplicity, the recordkeeping described above is streamlined with the more stringent recordkeeping required to demonstrate compliance with 06-096 C.M.R. ch. 169. The standards themselves are not being streamlined, only the recordkeeping required for compliance demonstration. Therefore, BGS shall maintain records of engine operating times on a 12-month rolling total basis. The 12-month rolling total encompassing January through December of each calendar year shall be used to demonstrate compliance with the annual time limit for maintenance and testing pursuant to 40 C.F.R. § 60.4211(f) as described above.

#### D. 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 up to 100,000 gal/yr of distillate fuel in MB Boilers #1-3, combined;
- Operating ME Boilers #1-4 and MB Boilers #1-3 for 8,760 hours per year each;
- Operating Generator #2, GL Generator #1, and GL Generator #2 for 100 hr/yr (each) of non-emergency operation;

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- Operating ME Generator #1 for 500 hr/yr (pursuant to limit accepted to comply with emission standards of Ch. 169); and
- Operating Incinerator #1 for 8,760 hr/yr.

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 <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
MB Boilers #1-3 <sup>1</sup>	7.1	7.1	7.1	0.2	5.6	1.2	0.5
Generator #2	0.1	0.1	0.1	0.1	0.8	0.2	0.1
GL Generator #1	0.1	0.1	0.1	0.1	2.9	0.8	0.1
GL Generator #2	0.1	0.1	0.1	ı	0.8	0.3	0.1
Incinerator #1	1.5	1.5	1.5	0.7	1.7	1.4	0.1
ME Boiler #1	0.3	0.3	0.3	ı	0.3	0.5	-
ME Boiler #2	0.3	0.3	0.3	ı	0.3	0.5	-
ME Boiler #3	0.3	0.3	0.3	ı	0.3	0.5	-
ME Boiler #4	0.3	0.3	0.3	ı	0.3	0.5	-
ME Generator #1	0.2	0.2	0.2	-	7.9	2.1	0.2
Total TPY	10.3	10.3	10.3	1.1	20.9	8.0	1.1

<sup>&</sup>lt;sup>1</sup> Emissions from these units were based on worst case scenarios for each pollutant: For PM, PM<sub>10</sub>, NO<sub>x</sub> and CO, this means firing 100,000 gal/year of distillate fuel and natural gas for the rest of the year; for SO<sub>2</sub> and VOC, this means firing natural gas for 8,760 hours/year.

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

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Pollutant	Tons/Year
$NO_x$	50
CO	250

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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 construction and operation of the proposed and currently 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 BGS 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-23-71-T-A subject to the conditions found in Air Emission License A-23-71-P-R/M, in amendments A-23-71-Q-A and A-23-71-S-A, and the following conditions.

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

### **SPECIFIC CONDITIONS**

#### The following are new conditions:

#### (27) **ME Boilers #1 - #4**

- A. ME Boilers #1 #4 are licensed to fire natural gas. [06-096 C.M.R. ch. 115, BACT]
- B. BGS shall equip, operate, and maintain NO<sub>x</sub> burners and oxygen trim systems on ME Boilers #1 #4. [06-096 C.M.R. ch. 115, BACT]

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

Emission	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
Unit	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)
ME Boiler #1	0.08	0.08	0.08	-	0.07	0.12	0.01
ME Boiler #2	0.08	0.08	0.08	-	0.07	0.12	0.01
ME Boiler #3	0.08	0.08	0.08	-	0.07	0.12	0.01
ME Boiler #4	0.08	0.08	0.08	-	0.07	0.12	0.01

D. Visible emissions from ME Boilers #1 - #4, from flue stack ME Boiler Shaft, shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, §§ 4(A)(3) and 4(D)(1)]

### (28) ME Generator #1

- A. ME Generator #1 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. ME Generator #1 shall be limited to 500 hours per year of all operation on a 12-month rolling total basis, including operating hours during emergency situations.

If there are periods of extended outage such as a natural disaster or other similar event outside BGS's control, BGS may apply to the Department for a temporary variance to exempt specific time periods from this annual hour limit. The Department Commissioner may, without hearing, issue that variance for a period of time not to exceed 30 days if, in his/her judgement, the variance is necessary to avoid immediate threat to public health, safety, or general welfare or to protect critical infrastructure. [06-096 C.M.R. ch. 169, § 4(B)(2)(c)]

- C. BGS shall keep records of all maintenance conducted on the engine associated with ME Generator #1. [06-096 C.M.R. ch. 115, BACT]
- D. Emissions shall not exceed the following:

Unit	Pollutant	lb/MMBtu	Origin and Authority
ME Generator #1	PM	0.12	06-096 C.M.R. ch. 103, § (2)(B)(1)(a)

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

	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
Unit	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)
ME Generator #1	0.79	0.79	0.79	0.02	31.52	8.37	0.89

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F. ME Generator #1 shall exhaust through a stack with a minimum height of 30 feet above ground level. [06-096 C.M.R. ch. 169, § 6(A)]

#### G. Visible Emissions

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

H. ME Generator #1 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, BACT and 06-096 C.M.R. ch. 169]

#### 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)]

#### 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, ME Generator #1 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. BGS 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. BGS shall maintain records of engine

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operating times on a 12-month rolling total basis. The 12-month rolling total encompassing January through December of each calendar year shall be used to demonstrate compliance with the annual time limit for maintenance and testing pursuant to 40 C.F.R. § 60.4211(f) as described above. [40 C.F.R. § 60.4214(b); 06-096 C.M.R. ch. 169, § 4(B)(2)(c); and 06-096 C.M.R. ch. 115, BPT]

# 5. Operation and Maintenance

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

BGS 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]

done and dated in augusta, maine this $14^{\text{th}}\text{day}$ of NOVEMBER, $2$	2025.
DEPARTMENT OF ENVIRONMENTAL PROTECTION	

The term of this license amendment shall be ten (10) years from the issuance of Air Emission License A-23-71-P-R/M (issued 10/31/2016).

[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: September 26, 2025

Date of application acceptance: September 30, 2025

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