

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

DEPARTMENT ORDER

Granite State Gas Transmission, Inc. Cumberland County Portland, Maine A-1145-71-A-N Departmental
Findings of Fact and Order
Air Emission License

FINDINGS OF FACT

After review of the air emission license 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

Granite State Gas Transmission, Inc. (GSGT) has applied for an Air Emission License for the operation of emission sources associated with their Westbrook Gate Station facility.

The equipment addressed in this license is located at 756 Warren Ave, Portland, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

| Equipment | Max. Capacity (MMBtu/hr) | Maximum Firing Rate (scfh) | Fuel Type, % sulfur | Date of Manuf. | Date of Install. | Stack# |
|------------|-----------------------------|----------------------------------|----------------------------|-------------------|---------------------|--------|
| Boiler # 1 | 3.0 | 2941.2 | Natural Gas, Negligible | 2019 | 2019 | 1 |
| Boiler # 2 | 3.0 | 2941.2 | Natural Gas, Negligible | 2019 | 2019 | 2 |
| Boiler # 3 | 3.0 | 2941.2 | Natural Gas, Negligible | 2019 | 2020 | 3 |
| Boiler # 4 | 3.0 | 2941.2 | Natural Gas, Negligible | 2019 | 2020 | 4 |

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Stationary Engines

| Equipment | Max. Input Capacity (MMBtu/hr) | Rated Output Capacity (kW) | Maximum Firing Rate (scfh) | Fuel Type, % sulfur | Date of Manuf. | Date of Install. |
|-----------------|--------------------------------|----------------------------|----------------------------------|----------------------------|-------------------|---------------------|
| Generator #1 | 1.21 | 80 | 1185 | Natural Gas, Negligible | 2019 | 2019 |

GSGT may operate small stationary engines smaller than 0.5 MMBtu/hr. These engines are considered insignificant activities and are not required to be included in this license. However, they are still subject to applicable State and Federal regulations. More information regarding requirements for small stationary engines is available on the Department's website at the link below.

http://www.maine.gov/dep/air/publications/docs/SmallRICEGuidance.pdf

Additionally, GSGT may operate <u>portable</u> engines used for maintenance or emergencyonly purposes. These engines are considered insignificant activities and are not required to be included in this license. However, they may still be subject to applicable State and Federal regulations.

The Department finds that from the information submitted by GSGT, the potential to emit fugitive VOC emissions total less than 1 ton per year; therefore, this process is classified as an insignificant activity, per 06-096 Code of Maine Rules (C.M.R.) ch. 115 Appendix B, section B. 1 (a).

C. Definitions

<u>Portable Engine</u> means an internal combustion engine which is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. This definition does NOT include engines which remain or will remain at a location (excluding storage locations) for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. A location is any single site at a building, structure, facility, or installation. Any engine that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period.

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.

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A new source is considered a major source based on whether or not total licensed annual emissions exceed the "Significant Emission" levels as defined in the Department's *Definitions Regulation*, 06-096 C.M.R. ch. 100.

| Pollutant | Total Licensed Annual Emissions (TPY) | Significant Emission Levels |
|-----------------|--|--------------------------------|
| PM | 2.7 | 100 |
| PM_{10} | 2.7 | 100 |
| SO_2 | 0.1 | 100 |
| NO _x | 2.8 | 100 |
| CO | 4.7 | 100 |
| VOC | 0.3 | 50 |

The Department has determined the facility is a minor source, and the application has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115.

E. Facility Classification

The facility is licensed as follows:

- · As a natural minor source of air emissions, 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 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.

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B. <u>Boilers # 1-4</u>

Boilers 1-4 are used to heat a 50% propylene glycol solution which is circulated through a water-to-gas shell-and-tube heat exchanger. The heat exchanger is used to increase the temperature of natural gas prior to pressure reduction from the step-down regulators. Each boiler is rated at 3.0 MMBtu/hr and fires natural gas. The boilers were installed in 2019 through 2020 and each exhausts through its own stack.

1. BACT Findings

GSGT submitted a BACT analysis for control of emissions from Boilers #1-4.

a. Particulate Matter (PM, PM₁₀)

GSGT has proposed to burn only low-ash content fuels (natural gas) in the boilers and to optimize combustion using efficient burner combustion technology and periodic maintenance checks. Additional add-on pollution controls such as the use of an electrostatic precipitator or a baghouse are not economically feasible.

BACT for PM/PM₁₀ emissions from Boilers #1-4 is the use of efficient burner combustion technology, periodic maintenance checks, and the emission limits listed in the table below.

b. Sulfur Dioxide (SO₂)

GSGT has proposed to fire only natural gas. The use of this fuel results in minimal emissions of SO₂. Therefore, additional add-on pollution controls are not economically feasible.

BACT for SO₂ emissions from Boilers #1-4 is the use of efficient burner combustion technology, periodic maintenance checks, and the emission limits listed in the table below.

c. Nitrogen Oxides (NO_x)

GSGT considered several control strategies for the control of NO_x including Selective Catalytic Reduction (SCR), Selective Non-Catalytic Reduction (SNCR), Flue Gas Recirculation (FGR), Low NO_x Burners, and Good Combustion Practices.

Both SCR and SNCR are technically feasible control technologies for minimizing NO_x. However, due to the initial capital cost and the annual operating costs, these systems are typically only considered cost effective for units larger than Boilers #1-4.

FGR is not available for a burner of this size.

The use of Low NO_x Burners on Boilers #1-4 and Good Combustion Practices have been determined to be feasible and have been selected as part of the BACT strategy.

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BACT for NO_x emissions from Boilers #1-4 is the use of Low NO_x Burners, Good Combustion Practices, and the emission limits listed in the tables below.

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

GSGT has proposed to burn only low-ash content natural gas in the boilers and to optimize combustion using efficient burner combustion technology and periodic maintenance checks. Additional add-on pollution controls are not economically feasible.

BACT for CO and VOC emissions from Boilers #1-4 is the use of efficient burner combustion technology, periodic maintenance checks, and the emission limits listed in the table below.

e. Emission Limits

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

Natural Gas

| PM/PM_{10} | | 0.05 lb/MMBtu based on 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 |
| 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 |

The BACT emission limits for Boilers #1-4 are as follows:

| Unit | PM lb/MMBtu | PM (lb/hr) | PM ₁₀ (lb/hr) | SO₂ (lb/hr) | NO _x (lb/hr) | CO (lb/hr) | VOC (lb/hr) |
|------------|----------------|---------------|-----------------------------|----------------|----------------------------|---------------|----------------|
| Boiler # 1 | 0.05 | 0.15 | 0.15 | Neg. | 0.15 | 0.25 | 0.02 |
| Boiler # 2 | 0.05 | 0.15 | 0.15 | Neg | 0.15 | 0.25 | 0.02 |
| Boiler # 3 | 0.05 | 0.15 | 0.15 | Neg | 0.15 | 0.25 | 0.02 |
| Boiler # 4 | 0.05 | 0.15 | 0.15 | Neg | 0.15 | 0.25 | 0.02 |

2. Visible Emissions

Visible emissions from the boilers shall each 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 their size, the boilers 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. 40 CFR Part 63, Subpart JJJJJJ

Natural gas-fired boilers are exempt from *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* (40 CFR Part 63 Subpart JJJJJJ).

C. Generator #1

Generator #1 is an 80 kW 3 phase emergency power generator that is run on natural gas. The emergency generator is a genset consisting of an engine and an electrical generator. The emergency generator has an engine rated at 1.21 MMBtu/hr which fires natural gas. The emergency generator was manufactured in 2019.

BACT Findings

GSGT submitted a BACT analysis for control of emissions from Generator #1.

a. Nitrogen Oxides (NO_x)

GSGT considered several control strategies for the control of NO_x including Selective Non-Catalytic Reduction (SNCR) and using an engine certified under 40 C.F.R. Part 60, Subpart JJJJ.

SNCR is not economically feasible for use on an engine of this size.

BACT for NO_x emissions from Generator #1 is to use a certified engine, and the emission limits listed in the table below.

b. Carbon Monoxide (CO), Volatile Organic Compounds (VOC), and PM GSGT has proposed to burn only low-ash content fuels (natural gas) in the Generator #1, the use of an engine certified under 40 C.F.R. Part 60, Subpart JJJJ, and proper operation and maintenance of the engine.

BACT for CO, VOC, and PM emissions from Generator #1 is through the exclusive use of natural gas as a fuel, proper operation and maintenance, and the use of a certified engine.

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

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PM/PM₁₀ - 0.05 lb/MMBtu from 06-096 C.M.R. ch. 103 SO₂ - 5.88E-4 lb/MMBtu from AP-42 dated 7/00 NO_x - 2.27 lb/MMBtu from AP-42 dated 7/00 CO - 3.51 lb/MMBtu from AP-42 dated 7/00 VOC - 0.03 lb/MMBtu from AP-42 dated 7/00 Visible - 06-096 C.M.R. ch. 115, BACT

Emissions

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

| Unit | PM | PM ₁₀ | SO ₂ | NO _x | CO | VOC |
|---------------|---------|------------------|-----------------|-----------------|---------|---------|
| | (lb/hr) | (lb/hr) | (lb/hr) | (lb/hr) | (lb/hr) | (lb/hr) |
| Generator # 1 | 0.06 | 0.06 | Neg. | 2.75 | 4.25 | 0.04 |

Visible emissions from Generator #1 shall not exceed 10% opacity on a six-minute block average basis.

The Department has determined that the proposed BACT visible emission limit is more stringent than the applicable limit in 06-096 C.M.R. ch. 101. Therefore, the visible emission limit for the generator has been streamlined to the more stringent BACT limit, and only this more stringent limit shall be included in the air emission license.

2. 40 C.F.R. Part 60, Subpart JJJJ

Standards of Performance for Spark Ignition Internal Combustion Engines, 40 C.F.R. Part 60, Subpart JJJJ is applicable to the emergency engine listed above since the unit was ordered after June 12, 2006, and manufactured after January 1, 2009. [40 C.F.R. §60.4230] By meeting the requirements of 40 C.F.R. Part 60, Subpart JJJJ, the unit also meet 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 JJJJ requirements is listed below.

a. Emergency Engine Designation and Operating Criteria

Under 40 C.F.R. Part 60, Subpart JJJJ, 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.

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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 JJJJ, resulting in the engine being subject to requirements 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 or equipment failure;
- 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. §§ 60.4243(d) and 60.4248]

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

- (1) Manufacturer Certification Requirement

 The engine shall be certified by the manufacturer as meeting the emission standards for new nonroad spark ignition engines found in 40 C.F.R. Part 60, Subpart JJJJ, Table 1. [40 C.F.R. § 60.4233]
- (2) Non-Resettable Hour Meter Requirement
 A non-resettable hour meter shall be installed and operated on the engine.
 [40 C.F.R. § 60.4237]
- (3) Operation and Maintenance Requirement
 The engine shall be operated and maintained according to the manufacturer's written instructions or procedures developed by GSGT that are approved by the engine manufacturer. GSGT may only change those settings that are permitted by the manufacturer. [40 C.F.R. § 60.4243]
- (4) Annual Time Limit for Maintenance and Testing
 As an emergency engine, the unit shall be limited to 100 hours/year for maintenance and testing. The emergency engine may operate up to 50 hours per year in non-emergency situations, but those 50 hours are included in the 100 hours total allowed for maintenance and testing. The 50 hours for non-emergency use cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of

a financial arrangement with another entity. [40 C.F.R. § 60.4243(d)]

(5) Recordkeeping

GSGT shall keep records that include maintenance conducted on the engine and 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, and 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. § 60.4245(b)]

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D. Annual Emissions

GSGT shall be restricted to the following annual emissions, based on a calendar year total. The tons per year limits were calculated based on the following:

- Operating Generator #1 for 100 hr/yr.
- Operating the boilers for 8,760 hr/yr each.

Total Licensed Annual Emissions for the Facility Tons/year

(used to calculate the annual license fee)

| | PM | PM ₁₀ | SO ₂ | NOx | CO | VOC |
|--------------|------|------------------|-----------------|------|------|------|
| Boiler #1 | 0.66 | 0.66 | - | 0.64 | 1.07 | 0.07 |
| Boiler #2 | 0.66 | 0.66 | _ | 0.64 | 1.07 | 0.07 |
| Boiler #3 | 0.66 | 0.66 | _ | 0.64 | 1.07 | 0.07 |
| Boiler #4 | 0.66 | 0.66 | _ | 0.64 | 1.07 | 0.07 |
| Generator #1 | - | | _ | 0.25 | 0.38 | _ |
| Total TPY | 2.7 | 2.7 | 0.1 | 2.8 | 4.7 | 0.3 |

| Pollutant | Tons/year |
|------------|-----------|
| Single HAP | 9.9 |
| Total HAP | 24.9 |

III. AMBIENT AIR QUALITY ANALYSIS

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

| Pollutant | Tons/Year |
|------------------|-----------|
| PM ₁₀ | 25 |
| SO_2 | 50 |
| NO _x | 50 |
| CO | 250 |

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

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

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

The Department hereby grants Air Emission License A-1145-71-A-N subject to the following conditions.

<u>Severability</u>. 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 commencing 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]

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- (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]

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- (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 such test results, 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 Part 70 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]

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SPECIFIC CONDITIONS

(16) **Boilers #1-4**

- A. Boilers #1-4 shall be fueled by natural gas exclusively. [06-096 C.M.R. ch. 115, BACT]
- B. Emissions shall not exceed the following:

| Emission Unit | Pollutant | lb/MMBtu | Origin and Authority |
|----------------------|-----------|----------|-----------------------------|
| Boiler #1 | PM | 0.05 | 06-096 C.M.R. ch. 115, BACT |
| Boiler #2 | PM | 0.05 | 06-096 C.M.R. ch. 115, BACT |
| Boiler #3 | PM | 0.05 | 06-096 C.M.R. ch. 115, BACT |
| Boiler #4 | PM | 0.05 | 06-096 C.M.R. ch. 115, BACT |

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

| Emission Unit | PM (lb/hr) | PM ₁₀ (lb/hr) | SO ₂ (lb/hr) | NO _x (lb/hr) | CO (lb/hr) | VOC (lb/hr) |
|------------------|---------------|-----------------------------|----------------------------|----------------------------|---------------|----------------|
| Boiler #1 | 0.15 | 0.15 | Neg. | 0.15 | 0.25 | 0.02 |
| Boiler #2 | 0.15 | 0.15 | Neg. | 0.15 | 0.25 | 0.02 |
| Boiler #3 | 0.15 | 0.15 | Neg. | 0.15 | 0.25 | 0.02 |
| Boiler #4 | 0.15 | 0.15 | Neg. | 0.15 | 0.25 | 0.02 |

D. Visible emissions from each of Boilers #1-4 shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]

(17) Generator #1

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

| | PM | PM ₁₀ | SO ₂ | NO _x | CO | VOC |
|--------------|---------|------------------|-----------------|-----------------|---------|---------|
| Unit | (lb/hr) | (lb/hr) | (lb/hr) | (lb/hr) | (lb/hr) | (lb/hr) |
| Generator #1 | 0.06 | 0.06 | Neg. | 2.75 | 4.25 | 0.04 |

C. Visible Emissions

Visible emissions from Generator #1 shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]

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D. Generator #1 shall meet the applicable requirements of 40 C.F.R. Part 60, Subpart JJJJ, including the following:

[incorporated under 06-096 C.M.R. ch. 115, BPT/BACT]

1. Manufacturer Certification

The engine shall be certified by the manufacturer as meeting the emission standards for new nonroad spark ignition engines found in 40 C.F.R. Part 60, Subpart JJJJ, Table 1.

2. Non-Resettable Hour Meter

A non-resettable hour meter shall be installed and operated on the engine. [40 C.F.R. § 60.4237 and 06-096 C.M.R. ch. 115, BACT]

3. 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). The 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. § 60.4243(d) and 06-096 C.M.R. ch. 115, BACT]
- b. GSGT shall keep records that include maintenance conducted on the engine and 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. § 60.4245(b)]

4. Operation and Maintenance

The engine shall be operated and maintained according to the manufacturer's written instructions or procedures developed by GSGT that are approved by the engine manufacturer. GSGT may only change those settings that are permitted by the manufacturer. [40 C.F.R. § 60.4243]

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

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GSGT shall notify the Department within 48 hours and submit a report to the Department (18)on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S. § 605).

DONE AND DATED IN AUGUSTA, MAINE THIS 25th DAY OF Jone

, 2019.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

GERALD D. REID, 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: 5/29/19 Date of application acceptance: 6/4/19

Date filed with the Board of Environmental Protection:

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

Board of Environmental Protection