



DEPARTMENT ORDER

Estabrook Farms & Greenhouses, Inc.
Cumberland County
Pownal, Maine
A-1165-71-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

Estabrook Farms & Greenhouses, Inc. (Estabrook) has applied for an Air Emission License for the operation of emission sources associated with their commercial greenhouse.

The equipment addressed in this license will be located at 76 Hallowell Road, Pownal, Maine.

B. Title, Right, or Interest

In their application, Estabrook submitted copies of a property deed demonstrating that Chandler Brook Properties, LLC has ownership of the property where the facility is to be built. Chandler Brook Properties, LLC is a wholly owned subsidiary of Estabrook. Therefore, Estabrook has provided sufficient evidence of title, right, or interest in the facility for purposes of this air emission license.

C. Emission Equipment

The following equipment is addressed in this air emission license:

Boilers

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate (gal/hr)	Fuel Type, % sulfur	Date of Manuf.	Date of Install.	Stack #
Boiler #1	12.3	134.2	propane, negligible	2022	2023	1
Boiler #2	12.3	134.2	propane, negligible	2022	2023	2

Stationary Engines

Equipment	Max. Input Capacity (MMBtu/hr)	Firing Rate (scf/hr)	Rated Output Capacity (kW)	Fuel Type, % sulfur	Date of Manuf.	Date of Install.
Generator #1	4.0	1,595	352 kW	propane, negligible	2022	2023
Generator #2	4.0	1,595	352 kW	propane, negligible	2022	2023

Estabrook may operate small stationary engines with maximum heat input capacities less 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, Estabrook may operate portable engines used for maintenance or emergency-only 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.

D. Definitions

Records or Logs mean either hardcopy or electronic records.

Portable or Non-Road Engine 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.

An engine is not a non-road (portable) engine if it remains or will remain at a location for more than 12 consecutive months or for a shorter period of time if sited at a seasonal source. A seasonal source is a source that remains in a single location for two years or more and which operates for fewer than 12 months in a calendar year. If an engine operates at a seasonal source for one entire season, the engine does not meet the criteria of a non-road (portable) engine and is subject to applicable stationary engine requirements.

E. 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.

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 Code of Maine Rules (C.M.R.) ch. 100.

Pollutant	Total Licensed Annual Emissions (tpy)	Significant Emission Levels
PM	1.0	100
PM ₁₀	1.0	100
SO ₂	1.8	100
NO _x	5.4	100
CO	10.2	100
VOC	1.2	50*

*Estabrook is located in an area of the state included in the Ozone Transport Region. Therefore, the significant emission level for VOC is 50 tpy.

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.

F. 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.

B. Boilers #1 and #2

Estabrook proposes to install two boilers, Boilers #1 and #2, each rated at 12.3 MMBtu/hr to provide heat and hot water to their greenhouse. Boilers #1 and #2 are two identical CRONE model CLW 115 ASME boilers that will fire only propane gas. Each boiler will have its own dedicated stack which will exhaust approximately 20 feet above ground level.

Boiler #1 will be constructed as part of the initial build-out of the facility, and Boiler #2 will be constructed during a later phase dependent on market demand.

Note: Pursuant to Standard Condition (3), if construction is discontinued for a period of 18 months or more, approval to construct Boiler #2 will become invalid unless the Department approves an extension of the construction period.

1. BACT Findings

Estabrook submitted a BACT analysis for control of emissions from Boilers #1 and #2.

a. Particulate Matter (PM, PM₁₀)

Estabrook has proposed to burn only low-ash content fuels (propane) in Boilers #1 and #2. Additional add-on pollution controls are not economically feasible due to the cost of control equipment compared to the relatively small amount of pollutant controlled.

BACT for PM/PM₁₀ emissions from Boilers #1 and #2 is the firing of propane and the emission limits listed in the tables below.

b. Sulfur Dioxide (SO₂)

Estabrook has proposed to fire only propane in Boilers #1 and #2. The use of this fuel results in minimal emissions of SO₂, and additional add-on pollution controls are not economically feasible due to the cost of control equipment compared to the relatively small amount of pollutant controlled.

BACT for SO₂ emissions from Boilers #1 and #2 is the use of propane and the emission limits listed in the tables below.

c. Nitrogen Oxides (NO_x)

Estabrook has proposed the use of low-NO_x burners (LNBS) on Boilers #1 and #2 which will result in a reduction of NO_x emissions by approximately 50% compared to emissions from standard burners. Additional add-on pollution controls are not

economically feasible due to the cost of control equipment compared to the relatively small amount of pollutant controlled.

BACT for NO_x emissions from Boilers #1 and #2 is the firing of only propane, use of LNBs, and the emission limits listed in the tables below.

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

Estabrook 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 these units. These controls were determined to not be economically feasible due to the cost of control equipment compared to the relatively small amount of pollutant controlled.

BACT for CO and VOC emissions from Boilers #1 and #2 is the firing of propane and the emission limits listed in the tables below.

e. Emission Limits

The BACT emission limits for Boilers #1 and #2 were based on the following:

- PM/PM₁₀ – 0.01 lb/MMBtu based 06-096 C.M.R. ch. 115, BACT
- SO₂ – 1.5 lb/1,000 gal based on AP-42 Table 1.5-1 dated 7/08 and a max sulfur content of 15 gr/100 ft³
- NO_x – 0.04 lb/MMBtu based on manufacturer’s specifications
- CO – 7.5 lb/1,000 gal based on AP-42 Table 1.5-1 dated 7/08
- VOC – 1.0 lb/1,000 gal based on AP-42 Table 1.5-1 dated 7/08
- Visible Emissions – 06-096 C.M.R. ch. 101

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

Unit	Pollutant	lb/MMBtu
Boiler #1	PM	0.01
Boiler #2	PM	0.01

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1	0.12	0.12	0.20	0.49	1.01	0.13
Boiler #2	0.12	0.12	0.20	0.49	1.01	0.13

2. Visible Emissions

Visible emissions from Boilers #1 and #2 (each) shall not exceed 10% opacity on a six-minute block average basis. Compliance shall be demonstrated by testing in accordance with 40 C.F.R. Part 60, Appendix A, Method 9 upon request by the Department.

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

Due to their size, Boilers #1 and #2 are subject to *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units* 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40c]

Estabrook shall comply with all requirements of 40 C.F.R. Part 60, Subpart Dc applicable to Boilers #1 and #2 including, but not limited to, the following:

- a. Estabrook shall submit notification to EPA and the Department of the date of construction, anticipated start-up, and actual start-up for each boiler. This notification shall include the design heat input capacity of each boiler and the type of fuel to be combusted. [40 C.F.R. § 60.48c(a)]
- b. Estabrook shall maintain records of the amounts of propane combusted in the boilers during each calendar month. [40 C.F.R. § 60.48c(g)]
- c. The following address for EPA shall be used for any reports or notifications required to be copied to them:

U.S. Environmental Protection Agency, Region I
5 Post Office Square, Suite 100 (OES04-2)
Boston, MA 02109-3912
Attn: Air Compliance Clerk

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

Boilers #1 and #2 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. Generators #1 and #2

Estabrook proposes to install and operate two new stationary emergency generators (Generators #1 and #2). Generators #1 and #2 are Kohler model 500REZXD generator sets each consisting of a Power Solutions International (PSI) model D216L engine and an

electrical generator. The engines will each be a 472 bhp (352 kW), 4-stroke, rich-burn engine that fires propane. Each engine's maximum heat input is calculated to be 4.0 MMBtu/hr.

1. BACT Findings

Estabrook submitted a BACT analysis for control of emissions from Generators #1 and #2.

a. Particulate Matter (PM, PM₁₀)

Estabrook has proposed to burn only low-ash content fuels (propane) in Generators #1 and #2 and the use of an engine compliant with 40 C.F.R. Part 60, Subpart JJJJ. Additional add-on pollution controls are not economically feasible due to the cost of control equipment compared to the relatively small amount of pollutant controlled.

BACT for PM/PM₁₀ emissions from Generators #1 and #2 is the firing of propane, use of an engine compliant with 40 C.F.R. Part 60, Subpart JJJJ, and the emission limits listed in the tables below.

b. Sulfur Dioxide (SO₂)

Estabrook has proposed to fire only propane in Generators #1 and #2. The use of this fuel results in minimal emissions of SO₂, and additional add-on pollution controls are not economically feasible due to the cost of control equipment compared to the relatively small amount of pollutant controlled.

BACT for SO₂ emissions from Generators #1 and #2 is the use of propane and the emission limits listed in the tables below.

c. Nitrogen Oxides (NO_x), Carbon Monoxide (CO), and Volatile Organic Compounds (VOC)

The engines associated with Generators #1 and #2 are equipped with a three-way catalyst where oxidation and reduction reactions between CO, VOC, and NO_x result in the simultaneous removal of all three pollutants in the presence of a catalyst. They are used with an air-to-fuel ratio (AFR) controller that maintains a slightly rich mixture below stoichiometric conditions. These controls are used to comply with the emission standards in 40 C.F.R. Part 60, Subpart JJJJ.

BACT for NO_x, CO, and VOC emissions from Generators #1 and #2 is the use of a three-way catalyst with AFR controller, an engine compliant with 40 C.F.R. Part 60, Subpart JJJJ and the emission limits in the tables below.

d. Emission Limits

The BACT emission limits for Generators #1 and #2 are based on the following:

- PM/PM₁₀ - 0.02 lb/MMBtu based on AP-42 Table 3.2-3 dated 7/00
- SO₂ - 5.88 x 10⁻⁴ lb/MMBtu based on AP-42 Table 3.2-2 dated 7/00
- NO_x - 2.27 lb/MMBtu based on AP-42 Table 3.2-3 dated 7/00
- CO - 3.51 lb/MMBtu based on AP-42 Table 3.2-3 dated 7/00
- VOC - 0.03 lb/MMBtu based on AP-42 Table 3.2-3 dated 7/00
- Opacity - 06-096 C.M.R. ch. 115, BACT

The BACT emission limits for Generators #1 and #2 are the following:

Unit	Pollutant	lb/MMBtu
Generator #1	PM	0.02

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1	0.08	0.08	–	9.08	14.04	0.12
Generator #2	0.08	0.08	–	9.08	14.04	0.12

Visible emissions from Generators #1 and #2 shall each not exceed 10% opacity on a six-minute block average basis. Compliance shall be demonstrated by testing in accordance with 40 C.F.R. Part 60, Appendix A, Method 9 upon request by the Department.

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 generators has been streamlined to the more stringent BACT limit, and only this more stringent limit shall be addressed further in this 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 engines listed above since the units will be 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 units 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. 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;
- 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. Emission Standards

Generators #1 and #2 are subject to emission standards for emergency engines greater than 25 HP that are rich burn engines that use liquified petroleum gas (LPG or propane) contained in 40 C.F.R. § 1048 pursuant to 40 C.F.R. § 60.4233(c). Estabrook shall purchase engines certified to those standards.

[40 C.F.R. § 60.4243(a)]

c. Operation and Maintenance

If a certified engine is not operated and maintained according to the manufacturer's emission-related written instructions, it is considered a non-certified engine. Estabrook has elected to operate and maintain their certified engines according to the manufacturer's instructions and shall apply to modify this license to address new applicable requirements before operating Generator #1 or #2 as a non-certified engine. A copy of the manufacturer's written instructions shall be provided to the Department upon request. [06-096 C.M.R. ch. 115, BACT]

The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [40 C.F.R. § 60.4243(g)]

d. Non-Resettable Hour Meter Requirements

A non-resettable hour meter shall be installed and operated on each engine.

[40 C.F.R. § 60.4237]

e. Annual Time Limit for Maintenance and Testing

As emergency engines, the units shall each be limited to 100 hours/year for maintenance and testing. The emergency engines may each 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)]

f. Recordkeeping

Estabrook shall keep records of the following for Generators #1 and #2:

- (1) All notifications submitted to comply with this subpart;
- (2) All maintenance conducted on the engine; [40 C.F.R. §§ 60.4243(a)(1) and 60.4245(a)]
- (3) Documentation that the engine meets the emission standards (e.g., copies of performance test reports or supplier certification); [40 C.F.R. § 60.4245(a)]
- (4) Hours of operation for 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)]

3. Chapter 169

Stationary Generators, 06-096 C.M.R. ch. 169 (Chapter 169), is applicable to Generators #1 and #2. They are emergency generators powered by engines with rated outputs 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 Generators #1 and #2, Estabrook shall comply with the emission standards for emergency generators by complying with the applicable standards contained in 40 C.F.R. Part 60, Subpart JJJJ. [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). Generators #1 and #2 are below this threshold and exhaust through their own dedicated stacks.

D. Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity on a five-minute block average basis.

E. General Process Emissions

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis.

F. Annual Emissions

The table below provides an estimate of facility-wide annual emissions for the purposes of calculating the facility's annual air license fee and establishing the facility's potential to emit (PTE). Only licensed equipment is included, i.e., emissions from insignificant activities are excluded. Similarly, unquantifiable fugitive particulate matter emissions are not included except when required by state or federal regulations. Maximum potential emissions were calculated based on the following assumptions:

- Operating Boilers #1 and #2 for 8,760 hrs/year each; and
- Operating Generators #1 and #2 for 100 hrs/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	SO ₂	NO _x	CO	VOC
Boiler #1	0.5	0.5	0.9	2.2	4.4	0.6
Boiler #2	0.5	0.5	0.9	2.2	4.4	0.6
Generator #1	–	–	–	0.5	0.7	–
Generator #2	–	–	–	0.5	0.7	–
Total TPY	1.0	1.0	1.8	5.4	10.2	1.2

Pollutant	Tons/year
Total HAP	7.9

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.

This determination is based on information provided by the applicant regarding the expected construction and operation of the proposed 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 Estabrook to submit additional information and may require an ambient air quality impact analysis at that time.

ORDER

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

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

The Department hereby grants Air Emission License A-1165-71-A-N subject to the following conditions.

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

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S. § 347-C).

- (2) The licensee shall acquire a new or amended air emission license prior to 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]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.
[06-096 C.M.R. ch. 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 C.M.R. ch. 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request.
[06-096 C.M.R. ch. 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.
[06-096 C.M.R. ch. 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.
[06-096 C.M.R. ch. 115]

- (11) In accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department, the licensee shall:
- A. Perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - 1. Within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - 2. Pursuant to any other requirement of this license to perform stack testing.
 - B. Install or make provisions to install test ports that meet the criteria of 40 C.F.R. Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - C. Submit a written report to the Department within thirty (30) days from date of test completion.
[06-096 C.M.R. ch. 115]
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- A. Within thirty (30) days following receipt of the written test report by the Department, or another alternative timeframe approved by the Department, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department; and
 - B. The days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - C. The licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
[06-096 C.M.R. ch. 115]

- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or license requirement. [06-096 C.M.R. ch. 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 C.M.R. ch. 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 C.M.R. ch. 115]
- (16) The licensee shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S. § 605). [06-096 C.M.R. ch. 115]

SPECIFIC CONDITIONS

(17) **Boilers #1 and #2**

- A. Estabrook shall fire only propane in Boilers #1 and #2. [06-096 C.M.R. ch. 115, BACT]
- B. Boilers #1 and #2 shall each be equipped with low-NO_x burners.
[06-096 C.M.R. ch. 115, BACT]
- C. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #1	PM	0.01	06-096 C.M.R. ch. 115, BACT
Boiler #2	PM	0.01	06-096 C.M.R. ch. 115, BACT

D. 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	0.12	0.12	0.20	0.49	1.01	0.13
Boiler #2	0.12	0.12	0.20	0.49	1.01	0.13

E. Visible emissions from Boilers #1 and #2 (each) shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 3(A)(3)]

F. Estabrook shall comply with all requirements of 40 C.F.R. Part 60, Subpart Dc applicable to Boilers #1 and #2 including, but not limited to, the following:

1. Estabrook shall submit notification to EPA and the Department of the date of construction, anticipated start-up, and actual start-up for each boiler. This notification shall include the design heat input capacity of each boiler and the type of fuel to be combusted. [40 C.F.R. § 60.48c(a)]
2. Estabrook shall maintain records of the amounts of propane combusted in the boilers during each calendar month. [40 C.F.R. § 60.48c(g)]

(18) **Generators #1 and #2**

A. Generators #1 and #2 shall each 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:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Generator #1	PM	0.02	06-096 C.M.R. ch. 115, BACT
Generator #2	PM	0.02	06-096 C.M.R. ch. 115, BACT

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

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1	0.08	0.08	–	9.08	14.04	0.12
Generator #2	0.08	0.08	–	9.08	14.04	0.12

D. Visible Emissions

Visible emissions from each of the emergency generators shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]

E. Generators #1 and #2 shall meet the applicable requirements of 40 C.F.R. Part 60, Subpart JJJJ, including, but not limited to, the following:
[40 C.F.R. Part 60, Subpart JJJJ incorporated under 06-096 C.M.R. ch. 115, BACT]

1. Manufacturer Certification

The engines shall be certified by the manufacturer as meeting the emission standards for new nonroad spark ignition engines found in 40 C.F.R. § 1048.
[40 C.F.R. § 60.4243(a)]

2. Operation and Maintenance

a. Each engine shall be operated and maintained according to the manufacturer's written emission-related instructions. A copy of the manufacturer's written instructions shall be provided to the Department upon request.
[06-096 C.M.R. ch. 115, BACT]

b. The AFR controller must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [40 C.F.R. § 60.4243(g)]

3. Non-Resettable Hour Meter

A non-resettable hour meter shall be installed and operated on each engine.
[40 C.F.R. § 60.4237]

4. Annual Time Limit for Maintenance and Testing

a. As emergency engines, the units shall each 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, BPT]

b. Estabrook shall keep records of the following for Generators #1 and #2:

- (1) All notifications submitted to comply with this subpart;
- (2) All maintenance conducted on the engine; [40 C.F.R. §§ 60.4243(a)(1) and 60.4245(a)]
- (3) Documentation that the engine meets the emission standards (e.g., copies of performance test reports or supplier certification); [40 C.F.R. § 60.4245(a)]
- (4) Hours of operation for 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)]

(19) Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity on a five-minute block average basis.
[06-096 C.M.R. ch. 101, § 3(C)]

(20) General Process Sources

Visible emissions from any general process source shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 3(B)(4)]

- (21) If the Department determines that any parameter value pertaining to construction and operation of the proposed 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, Estabrook may be required to submit additional information. Upon written request from the Department, Estabrook 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 28th DAY OF OCTOBER, 2022.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:  for
MELANIE LOYZIM, COMMISSIONER

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

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 10/5/2022

Date of application acceptance: 10/6/2022

Date filed with the Board of Environmental Protection:

This Order prepared by Lynn Muzzey, Bureau of Air Quality.

