



DEPARTMENT ORDER

**Backyard Farms, LLC**  
**Somerset County**  
**Madison, Maine**  
**A-937-71-O-R (SM)**

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

**FINDINGS OF FACT**

After review of the air emission license renewal 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

Backyard Farms, LLC (BYF) has applied to renew their Air Emission License for the operation of emission sources associated with their greenhouse facility.

The equipment addressed in this license is located at 131 River Road, Madison, Maine.

B. Emission Equipment

The following equipment is addressed in this air emission license:

**Fuel Burning Equipment**

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type, % sulfur	Date of Manuf.	Date of Install.	Stack #
Boiler #P1	47.7 [each]	527 gal/hr	LPG, negl.	2006	2006	1
Boiler #P2		46,765 scf/hr	Natural gas, negl.			2
Boiler #P3		341 gal/hr	Distillate fuel, 0.0015%	2009	2009	3
Vaporizer #1	1.14 [each]	12.6 gal/hr	LPG, negl.	2006	2006	6
Vaporizer #2						7

**Stationary Engines**

Equipment	Max. Input Capacity (MMBtu/hr)	Rated Output Capacity (kW)	Fuel Type, % sulfur	Firing Rate (gal/hr)	Date of Manuf.	Date of Install.	Stack #
Generator #1	4.6	400	Distillate fuel, 0.0015%	32.9	2006	2006	4
Generator #2	5.1	500		36.4	2009	2009	5
Generator #3	1.87	130	LPG, negl.	20.4	2012	2012	8

C. Definitions

Distillate Fuel. For the purposes of this license, *distillate fuel* means the following:

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

D. Application Classification

All rules, regulations, or statutes referenced in this air emission license refer to the amended version in effect as of the issued date of this license.

The application for BYF does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of currently licensed emission units only and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115.

With the annual heat input limit on Boilers #P1, #P2, and #P3 and Vaporizers #1 and #2 and the non-emergency operating hour restriction on Generators #1, #2, and #3, the facility is licensed as follows:

- As a synthetic minor source of air emissions, because the licensed emissions are below the major source thresholds for criteria pollutants; and
- As an area source of hazardous air pollutants (HAP), because the licensed emissions are below the major source thresholds for HAP.

II. **BEST PRACTICAL TREATMENT (BPT)**

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100. Separate control requirement categories exist for new and existing equipment.

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

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

B. Boilers #P1, #P2, and #P3

BYF operates Boilers #P1, #P2, and #P3 for heat. All three units are rated at 47.7 MMBtu/hr and are licensed to fire distillate fuel with a maximum sulfur content of 0.0015% by weight (15 ppm), LPG, and natural gas. Boilers #P1 and #P2 were both manufactured and installed in 2006, and Boiler #P3 was manufactured and installed in 2009. All three boilers are Dutch manufactured, packaged, fire tube units, and each boiler exhausts through its own 38-foot above ground level stack, Stacks #1, #2, and #3, respectively.

1. BPT Findings

The BPT emission limits for Boilers #P1, #P2, and #P3 when firing distillate fuel were based on the following:

PM/PM <sub>10</sub>	–	0.08 lb/MMBtu based on A-937-71-G-M (10/7/09), BACT
SO <sub>2</sub>	–	0.0015 lb/MMBtu based on firing distillate fuel with a maximum sulfur content of 0.0015% by weight (15 ppm)
NO <sub>x</sub>	–	0.30 lb/MMBtu based on A-937-71-G-M (10/7/09), BACT
CO	–	0.036 lb/MMBtu based on AP-42, Table 1.3-1, dated 5/10
VOC	–	0.001 lb/MMBtu based on AP-42, Table 1.3-3, dated 5/10
Visible Emissions	–	06-096 C.M.R. ch. 115, BPT

The BPT emission limits for Boilers #P1, #P2, and #P3 when firing LPG were based on the following:

PM/PM <sub>10</sub>	–	0.007 lb/MMBtu based on A-937-71-H-M (10/14/10), BACT
SO <sub>2</sub>	–	0.0003 lb/MMBtu based on A-937-71-H-M (10/14/10), BACT
NO <sub>x</sub>	–	0.091 lb/MMBtu based on A-937-71-H-M (10/14/10), BACT
CO	–	0.035 lb/MMBtu based on A-937-71-H-M (10/14/10), BACT
VOC	–	0.003 lb/MMBtu based on A-937-71-H-M (10/14/10), BACT
Visible Emissions	–	06-096 C.M.R. ch. 115, BPT

The BPT emission limits for Boilers #P1, #P2, and #P3 when firing natural gas were based on the following:

PM/PM <sub>10</sub>	–	0.01 lb/MMBtu based on A-937-71-H-M (10/14/10), BACT
SO <sub>2</sub>	–	0.0006 lb/MMBtu based on AP-42, Table 1.4-2, dated 7/98
NO <sub>x</sub>	–	0.098 lb/MMBtu based on AP-42, Table 1.4-1, dated 7/98
CO	–	0.082 lb/MMBtu based on AP-42, Table 1.4-1, dated 7/98
VOC	–	0.005 lb/MMBtu based on AP-42, Table 1.4-2, dated 7/98
Visible Emissions	–	06-096 C.M.R. ch. 115, BPT

The BPT emission limits for Boilers #P1, #P2, and #P3 are the following:

Unit	Fuel	Pollutant	lb/MMBtu
Boilers #P1, #P2, and #P3 [each]	Distillate fuel	PM	0.08
	LPG		0.007
	Natural gas		0.01

Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boilers #P1, #P2, and #P3 [each] Distillate fuel	3.82	3.82	0.07	14.31	1.70	0.07
Boilers #P1, #P2, and #P3 [each] LPG	0.33	0.33	0.01	4.35	1.69	0.15
Boilers #P1, #P2, and #P3 [each] Natural gas	0.48	0.48	0.03	4.68	3.93	0.26

When firing distillate fuel, visible emissions from Boilers #P1, #P2, and #P3 shall each not exceed 20% opacity on a six-minute block average basis, except for one six-minute block average per hour of not more than 27% opacity.

When firing natural gas or LPG, visible emissions from Boilers #P1, #P2, and #P3 shall each not exceed 10% opacity on a six-minute block average basis.

BYF shall be limited to a heat input of 550,000 MMBtu/year on a 12-month rolling total basis for Boilers #P1, #P2, and #P3 and Vaporizers #1 and #2 for distillate fuel, LPG, and natural gas combined.

## 2. Periodic Monitoring

Periodic monitoring for Boilers #P1, #P2, and #P3 shall include recordkeeping to document fuel use both on a monthly and 12-month rolling total basis. Fuel use shall be converted to heat input on a monthly and 12-month rolling total basis using heating values of 0.14 MMBtu/gal for distillate fuel, 0.0905 MMBtu/gal for LPG, and 0.00102 MMBtu/scf for natural gas. Documentation shall include the type, volume, and sulfur content of the fuel used, as applicable.

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

Due to their size and year of manufacture, Boilers #P1, #P2, and #P3 are all 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(a)]

BYF shall comply with all requirements of 40 C.F.R. Part 60, Subpart Dc applicable to Boilers #P1, #P2, and #P3 including, but not limited to, the following:

a. Notifications

BYF shall submit notification to EPA and the Department of the date of construction, anticipated start-up, and actual start-up. This notification shall include the design heat input capacity of the boiler and the type of fuel to be combusted. BYF submitted these Notifications to EPA on July 6, 2006, and October 30, 2007, for Boilers #P1 and #P2, respectively, and on November 18, 2009, for Boiler #P3. [40 C.F.R. § 60.48c(a)]

b. Standards

(1) Sulfur Dioxide (SO<sub>2</sub>)

The distillate fuel fired in Boilers #P1, #P2, and #P3 shall not exceed 0.5% sulfur by weight. [40 C.F.R. § 60.42c(d)] This fuel sulfur content limit has been streamlined to the lower limit (0.0015% by weight) required under 06-096 C.M.R. ch. 115, BPT.

(2) Opacity

When firing distillate fuel, visible emissions from Boilers #P1, #P2, and #P3 shall each not exceed 20% opacity on a 6-minute block average basis, except for one 6-minute block average per hour of not more than 27% opacity. This standard shall apply at all times, except during periods of startup, shutdown, or malfunction. [40 C.F.R. § 60.43c(c) and (d)]

c. Initial Compliance Requirements

BYF shall perform the following within 30 days after achieving the maximum production rate at which Boilers #P1, #P2, and #P3 will be operated but not later than 180 days after the initial start-up of the units:

- (1) Submit to EPA and the Department copies of the fuel supplier certification of the sulfur content of the fuel fired in Boilers #P1, #P2, and #P3. The fuel supplier certification must contain the name of the oil supplier, a statement from the oil supplier that the oil complies with ASTM specifications for distillate oil, and the maximum sulfur content of the oil. BYF submitted the initial fuel supplier certification to EPA and the Department on November 13, 2009. [40 C.F.R. § 60.44c(h)]
- (2) When firing distillate fuel, BYF shall conduct an initial performance test for opacity using 40 C.F.R. Part 60, Appendix A, Method 9 in accordance with 40 C.F.R. § 60.45c. BYF conducted the initial performance test for opacity for Boilers #P1, #P2, and #P3 on November 3, 2017. [40 C.F.R. § 60.45c(a)(8)]

**d. Monitoring Requirements**

- (1) Except as provided in paragraph (3) below, BYF shall conduct performance tests on Boilers #P1, #P2, and #P3 for opacity using 40 C.F.R. Part 60, Appendix A, Method 9 according to the following schedule [40 C.F.R. § 60.47c(a)]:
  - (i) If no visible emissions were observed in the most recent Method 9 performance test, the next performance test shall be completed within 12 calendar months or within 45 days of firing oil in the boiler, whichever is later.
  - (ii) If visible emissions were observed in the most recent Method 9 performance test, and the maximum 6-minute block average was less than or equal to 5% opacity, the next performance test shall be completed within 6 calendar months or within 45 days of firing oil in the boiler, whichever is later.
  - (iii) If visible emissions were observed in the most recent Method 9 performance test, and the maximum 6-minute block average was greater than 5% but less than or equal to 10% opacity, the next performance test shall be completed within 3 calendar months or within 45 days of firing oil in the boiler, whichever is later.
  - (iv) If visible emissions were observed in the most recent Method 9 performance test, and the maximum 6-minute block average was greater than 10% opacity, the next performance test shall be completed within 45 days.
- (2) The observation period for the Method 9 performance test may be reduced from 3 hours to 60 minutes if all 6-minute block averages are less than 10% opacity and all individual 15-second observations are less than or equal to 20% opacity during the initial 60 minutes of observation. [40 C.F.R. § 60.47c(a)]

- (3) If the visible emissions observed in the most recent Method 9 performance test were less than 10% opacity, BYF may elect to perform subsequent performance tests using 40 C.F.R. Part 60, Appendix A, Method 22 as follows [40 C.F.R. § 60.47c(a)]:
- (i) BYF shall conduct 10-minute observations each operating day Boilers #P1, #P2, or #P3 fire oil using Method 22.
  - (ii) If no visible emissions are observed for 10 operating days, BYF may reduce observations to once every 7 operating days. If any visible emissions are observed, daily observations shall be resumed.
  - (iii) If the sum of the occurrence of any visible emissions is greater than 30 seconds per 10-minute observation, BYF shall immediately conduct a 30-minute observation.
  - (iv) If the sum of the occurrence of any visible emissions is greater than 90 seconds per 30-minute observation, BYF shall either document the adjustments made to Boilers #P1, #P2, and #P3 and demonstrate within 24 hours that the sum of the occurrence of any visible emissions is not greater than 90 seconds per 30-minute observation or conduct a Method 9 performance test within 45 days.
- e. Reporting and Recordkeeping
- (1) BYF shall maintain records of the amounts of each fuel combusted during each month with fuel certifications. [40 C.F.R. § 60.48c(g)]
  - (2) For each visible emissions performance test performed, BYF shall maintain records of the following [40 C.F.R. § 60.48c(c)]:
    - (i) Dates and time intervals of all opacity or visible emissions observation periods;
    - (ii) Name and affiliation for each visible emission observer participating in the performance test. For Method 9 performance tests, include a copy of the current visible emission reading certification for each visible emission observer.
    - (iii) Copies of all visible emission observer opacity field data sheets; and
    - (iv) Documentation of any adjustments made and the time the adjustments were completed to demonstrate compliance with the applicable monitoring requirements (Method 22 observations only).

- (3) BYF shall submit semi-annual reports to EPA and to the Department. [40 C.F.R. § 60.48c(d)] These reports shall include the following:
- (i) Calendar dates covered in the reporting period; [40 C.F.R. § 60.48c(e)(1)]
  - (ii) Records of fuel supplier certifications following the procedures in 40 C.F.R. § 60.48c(f); [40 C.F.R. § 60.48c(e)(11)] and
  - (iii) Any instances of excess emissions (including opacity) from Boilers #P1, #P2, and #P3 according to the requirements in 40 C.F.R. § 60.48c(c). [40 C.F.R. § 60.48c(c)]
- (4) The semi-annual reports are due within 30 days of the end of each six-month period. [40 C.F.R. § 60.48c(j)]
- (5) All records required under 40 C.F.R. § 60.48c shall be maintained by the facility for a period of two years following the date of such record. [40 C.F.R. § 60.48c(i)]
- (6) 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 #P1, #P2, and #P3 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. The units are considered existing gas-fired boilers rated greater than 10 MMBtu/hr. [40 C.F.R. §§ 63.11193 and 63.11195]

Gas-fired boilers are exempt from 40 C.F.R. Part 63, Subpart JJJJJ. However, boilers which fire fuel oil are not. A "gas-fired boiler" is defined as any boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment, gas supply interruption, startups, or periodic testing on liquid fuel. Periodic testing of liquid fuel shall not exceed a combined total of 48 hours during any calendar year. [40 C.F.R. § 63.11237]

Any boiler designed to burn fuels besides gaseous fuels prior to June 4, 2010, will be considered an existing boiler under this rule. A boiler which currently fires gaseous fuels, but converts back to firing another fuel (such as distillate fuel) in the future would become subject as an existing boiler at the time it is converted back to oil.



C. Vaporizers #1 and #2

BYF operates two LPG vaporizers, Vaporizers #1 and #2, to provide heat to change liquid LPG to its gaseous state before it is delivered to the boilers for use as their fuel. Vaporizers #1 and #2 are both rated at 1.14 MMBtu/hr and are licensed to fire LPG. Both units were manufactured and installed in 2006, and each exhausts to its own four-foot above ground level stack, Stacks #6 and #7, respectively.

1. BPT Findings

The BPT emission limits for Vaporizers #1 and #2 were based on the following:

- PM/PM<sub>10</sub> – 0.05 lb/MMBtu based on A-937-71-J-R (7/2/12), BPT
- SO<sub>2</sub> – 0.018 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08
- NO<sub>x</sub> – 13 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08
- CO – 7.5 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08
- VOC – 0.8 lb/1000 gal based on AP-42, Table 1.5-1, dated 7/08
- Visible Emissions – 06-096 C.M.R. ch. 115, BPT

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

Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Vaporizers #1 and #2 [each]	0.06	0.06	0.01	0.16	0.09	0.01

Visible emissions from Vaporizers #1 and #2 shall each not exceed 10% opacity on a six-minute block average basis.

Vaporizers #1 and #2 shall be included in the 550,000 MMBtu/year heat input limit for Boilers #P1, #P2, and #P3 and Vaporizers #1 and #2, based on a 12-month rolling total.

2. Periodic Monitoring

Periodic monitoring for Vaporizers #1 and #2 shall include recordkeeping to document fuel use both on a monthly and 12-month rolling total basis. Fuel use shall be converted to heat input on a monthly and 12-month rolling total basis using a heating value of 0.0905 MMBtu/gal for LPG. Documentation shall include the type and volume of the fuel used.

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

Due to their size, Vaporizers #1 and #2 are not subject to *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40c]

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

Vaporizers #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. The units are considered process heaters, which are specifically excluded from the definition of boiler as included in the subpart. [40 C.F.R. §§ 63.11193 and 63.11195]

D. Generators #1, #2, and #3

BYF operates Generators #1, #2, and #3 as emergency generators. The emergency generators are generator sets with each gen set consisting of an engine and an electrical generator. Generators #1, #2, and #3 have engines rated at 4.6 MMBtu/hr, 5.1 MMBtu/hr, and 1.87 MMBtu/hr, respectively. Generators #1 and #2 both fire distillate fuel and Generator #3 fires LPG. Generators #1, #2, and #3 were manufactured and installed in 2006, 2009, and 2012, respectively.

1. BPT Findings

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

PM/PM <sub>10</sub>	- 0.12 lb/MMBtu based on 06-096 C.M.R. ch. 103(2)(B.) (1)(a)
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>	- 1.29 lb/MMBtu based on Manufacturer's Guaranteed Not to Exceed (MGNTE)
CO	- 0.174 lb/MMBtu based on MGNTE
VOC	- 0.025 lb/MMBtu based on MGNTE
Opacity	- 06-096 C.M.R. ch. 115, BPT

The BPT emission limits for Generator #2 are based on the following:

- PM/PM<sub>10</sub> - 0.12 lb/MMBtu based on 06-096 C.M.R. ch. 103(2.)(B.)(1)(a)
- 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> - 2.286 lb/MMBtu based on MGNTE
- CO - 0.245 lb/MMBtu based on MGNTE
- VOC - 0.006 lb/MMBtu based on MGNTE
- Opacity - 06-096 C.M.R. ch. 115, BPT

The BPT emission limits for Generator #3 are based on the following:

- PM/PM<sub>10</sub> - 0.00991 lb/MMBtu based on AP-42, Table 3.2-2, dated 7/00
- SO<sub>2</sub> - 0.001 lb/MMBtu based on AP-42, Table 3.2-2, dated 7/00
- NO<sub>x</sub> - 0.052 lb/MMBtu based on MGNTE
- CO - 0.261 lb/MMBtu based on MGNTE
- VOC - 0.22 lb/MMBtu based on MGNTE
- Opacity - 06-096 C.M.R. ch. 115, BPT

The BPT emission limits for Generators #1, #2, and #3 are the following:

Unit	Pollutant	lb/MMBtu
Generator #1	PM	0.12
Generator #2	PM	0.12

Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1	0.55	0.55	0.01	5.93	0.80	0.12
Generator #2	0.61	0.61	0.01	11.66	1.25	0.03
Generator #3	0.02	0.02	0.01	0.10	0.49	0.41

Visible emissions from Generators #1 and #2 shall each not exceed 20% opacity on a six-minute block average basis.

Visible emissions from Generator #3 shall not exceed 10% opacity on a six-minute block average basis.

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

*Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*, 40 C.F.R. Part 60, Subpart IIII is applicable to Generators #1 and #2 since the units were 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 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 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)

**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. §§ 60.4211(f) and 60.4219]

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

(1) Manufacturer Certification Requirement

The engines 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 engines shall not exceed 15 ppm sulfur (0.0015% sulfur), except that any existing fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. [40 C.F.R. § 60.4207(b)]

(3) Non-Resettable Hour Meter Requirement

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

(4) Operation and Maintenance Requirements

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

(5) Annual Time Limit for Maintenance and Testing

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). [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

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

3. 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 Generator #3 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 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 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 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 BYF that are approved by the engine manufacturer. BYF 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

BYF 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)]



E. Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity, except for no more than five minutes in any one-hour period during which time visible emissions shall not exceed 30% opacity. Compliance shall be determined by an aggregate of the individual fifteen-second opacity observations which exceed 20% in any one hour.

F. General Process Emissions

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

G. Annual Emissions

1. Total Annual Emissions

BYF shall be restricted to the following annual emissions, based on a 12-month rolling total. The tons per year limits were calculated based on a heat input limit of 550,000 MMBtu/year for Boilers #P1, #P2, and #P3 and Vaporizers #1 and #2 combined and a non-emergency operating hour restriction of 100 hours/year each for Generators #1, #2, and #3:

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

	<b>PM</b>	<b>PM<sub>10</sub></b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>VOC</b>
Boilers #P1, #P2, and #P3 and Vaporizers #1 and #2	22.0	22.0	0.4	82.5	22.7	1.5
Generators #1, #2, and #3	0.1	0.1	0.1	0.9	0.1	0.1
<b>Total TPY</b>	<b>22.1</b>	<b>22.1</b>	<b>0.5</b>	<b>83.4</b>	<b>22.8</b>	<b>1.6</b>

<b>Pollutant</b>	<b>Tons/year</b>
Single HAP	9.9
Total HAP	24.9

## 2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through ‘Tailoring’ revisions made to EPA’s *Approval and Promulgation of Implementation Plans*, 40 C.F.R. Part 52, Subpart A, § 52.21, *Prevention of Significant Deterioration of Air Quality* rule. Greenhouse gases, as defined in 06-096 C.M.R. ch. 100, are the aggregate group of the following gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO<sub>2</sub>e).

The quantity of CO<sub>2</sub>e emissions from this facility is less than 100,000 tons per year, based on the following:

- the facility’s heat input limit and engine operating hours limits;
- worst case emission factors from the following sources: U.S. EPA’s AP-42, the Intergovernmental Panel on Climate Change (IPCC), and *Mandatory Greenhouse Gas Reporting*, 40 C.F.R. Part 98; and
- global warming potentials contained in 40 C.F.R. Part 98.

No additional licensing actions to address GHG emissions are required at this time.

### 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 <sub>10</sub>	25
SO <sub>2</sub>	50
NO <sub>x</sub>	50
CO	250

The total annual licensed emissions for NO<sub>x</sub> are above the emission levels contained in the table above. The maximum licensed NO<sub>x</sub> emission level for the facility was established in Air Emission License Amendment A-937-71-K-A (issued August 16, 2012) at 88.0 tons per year. At the time that license amendment was issued, the modeling threshold for NO<sub>x</sub> emissions was still 100 tons per year as established in the version of 06-096 C.M.R. ch. 115 amended August 4, 2008, in effect at the time. Approximately four months after issuance of that amendment, on December 1, 2012, 06-096 C.M.R. ch. 115 was further amended and, as part of the amendment, the modeling threshold for NO<sub>x</sub> emissions was decreased from 100 tons per

year to 50 tons per year. Since the decrease in the NO<sub>x</sub> modeling threshold, the facility's total annual licensed NO<sub>x</sub> emissions have decreased from 88.0 tons per year to 83.4 tons per year.

After taking into consideration both the above factors and the following factors:

- similarity with other licensed sources based on size, emissions, and local topography;
- location, including proximity to other sources, complex terrain and Class I areas; and
- background air quality data available in or representative of the local area,

The Department has determined that an ambient air quality impact analysis is not required for the facility and that Ambient Air Quality Standards (AAQS) will not be exceeded.

### **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-937-71-O-R 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 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]

#### SPECIFIC CONDITIONS

- (16) **Boilers #P1, #P2, and #P3 and Vaporizers #1 and #2 Heat Input Limit**
- A. Boilers #P1, #P2, and #P3 and Vaporizers #1 and #2 combined shall be limited to a maximum heat input of 550,000 MMBtu/year based on a 12-month rolling total for distillate fuel, LPG, and natural gas use, combined. [06-096 C.M.R. ch. 115, BPT]
- B. Compliance shall be demonstrated by fuel records from the supplier showing the quantity and type of the fuel delivered. Fuel use shall be converted to heat input on a monthly and 12-month rolling total basis using heating values of 0.14 MMBtu/gal for distillate fuel, 0.0905 MMBtu/gal for LPG, and 0.00102 MMBtu/scf for natural gas. [06-096 C.M.R. ch. 115, BPT]
- (17) **Boilers #P1, #P2, and #P3**
- A. Fuel
1. Boilers #P1, #P2, and #P3 are all licensed to fire distillate fuel with a maximum sulfur content of 0.0015% by weight (15 ppm), LPG, and natural gas. [06-096 C.M.R. ch. 115, BPT]
  2. Compliance with the distillate fuel sulfur content limit shall be demonstrated by fuel records from the supplier showing the type and the percent sulfur of the fuel delivered or fuel supplier certifications as specified in 40 C.F.R. §§ 60.48c(e)(11) and 60.48c(f). [06-096 C.M.R. ch. 115, BPT]

B. Emissions shall not exceed the following:

Unit	Fuel	Pollutant	lb/MMBtu	Origin and Authority
Boilers #P1, #P2, and #P3 [each]	Distillate fuel	PM	0.08	A-937-71-G-M (10/7/09), BACT
	LPG	PM	0.007	A-937-71-H-M (10/14/10), BACT
	Natural gas	PM	0.01	A-937-71-H-M (10/14/10), BACT

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

Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boilers #P1, #P2, and #P3 [each] Distillate fuel	3.82	3.82	0.07	14.31	1.70	0.07
Boilers #P1, #P2, and #P3 [each] LPG	0.33	0.33	0.01	4.35	1.69	0.15
Boilers #P1, #P2, and #P3 [each] Natural gas	0.48	0.48	0.03	4.68	3.93	0.26

D. When firing natural gas or LPG, visible emissions from Boilers #P1, #P2, and #P3 shall each not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

E. BYF shall comply with all requirements of 40 C.F.R. Part 60, Subpart Dc applicable to Boilers #P1, #P2, and #P3 including, but not limited to, the following:

1. Standards

a. Sulfur Dioxide (SO<sub>2</sub>)

The distillate fuel fired in Boilers #P1, #P2, and #P3 shall not exceed 0.5% sulfur by weight. [40 C.F.R. § 60.42c(d)] This fuel sulfur content limit has been streamlined to the lower limit (0.0015% by weight) required under 06-096 C.M.R. ch. 115, BPT.

b. Opacity

When firing distillate fuel, visible emissions from Boilers #P1, #P2, and #P3 shall each not exceed 20% opacity on a 6-minute block average, except for one 6-minute block average per hour of not more than 27% opacity. [40 C.F.R. § 60.43c(c)]

2. Monitoring Requirements

- a. Except as provided in paragraph (3) below, BYF shall conduct performance tests on Boilers #P1, #P2, and #P3 for opacity using 40 C.F.R. Part 60, Appendix A, Method 9 according to the following schedule [40 C.F.R. § 60.47c(a)]:
  - (1) If no visible emissions were observed in the most recent Method 9 performance test, the next performance test shall be completed within 12 calendar months or within 45 days of firing oil in the boiler, whichever is later.
  - (2) If visible emissions were observed in the most recent Method 9 performance test, and the maximum 6-minute block average was less than or equal to 5% opacity, the next performance test shall be completed within 6 calendar months or within 45 days of firing oil in the boiler, whichever is later.
  - (3) If visible emissions were observed in the most recent Method 9 performance test, and the maximum 6-minute block average was greater than 5% but less than or equal to 10% opacity, the next performance test shall be completed within 3 calendar months or within 45 days of firing oil in the boiler, whichever is later.
  - (4) If visible emissions were observed in the most recent Method 9 performance test, and the maximum 6-minute block average was greater than 10% opacity, the next performance test shall be completed within 45 days.
- b. The observation period for the Method 9 performance test may be reduced from 3 hours to 60 minutes if all 6-minute block averages are less than 10% opacity and all individual 15-second observations are less than or equal to 20% opacity during the initial 60 minutes of observation. [40 C.F.R. § 60.47c(a)]
- c. If the visible emission observed in the most recent Method 9 performance test were less than 10% opacity, BYF may elect to perform subsequent performance tests using 40 C.F.R. Part 60, Appendix A, Method 22 as follows [40 C.F.R. § 60.47c(a)]:
  - (1) BYF shall conduct 10-minute observations each operating day Boilers #P1, #P2, and #P3 fire oil using Method 22.
  - (2) If no visible emissions are observed for 10 operating days, BYF may reduce observations to once every 7 operating days. If any visible emissions are observed, daily observations shall be resumed.
  - (3) If the sum of the occurrence of any visible emissions is greater than 30 seconds per 10-minute observation, BYF shall immediately conduct a 30-minute observation.
  - (4) If the sum of the occurrence of any visible emissions is greater than 90 seconds per 30-minute observation, BYF shall either document the adjustments made to Boilers #P1, #P2, and #P3 and demonstrate within



24 hours that the sum of the occurrence of any visible emissions is not greater than 90 seconds per 30-minute observation or conduct a Method 9 performance test within 45 days.

**3. Reporting and Recordkeeping**

- a. BYF shall maintain records of the amounts of each fuel combusted during each month with fuel certifications. [40 C.F.R. § 60.48c(g)]
- b. For each opacity performance test performed, BYF shall maintain records of the following [40 C.F.R. § 60.48c(e)]:
  - (1) Dates and time intervals of all opacity or visible emissions observation periods;
  - (2) Name and affiliation for each visible emission observer participating in the performance test. For Method 9 performance tests, include a copy of the current visible emission reading certification for each visible emission observer.
  - (3) Copies of all visible emission observer opacity field data sheets; and
  - (4) Documentation of any adjustments made and the time the adjustments were completed to demonstrate compliance with the applicable monitoring requirements (Method 22 observations only).
- c. BYF shall submit semi-annual reports to EPA and to the Department. [40 C.F.R. § 60.48c(d)] These reports shall include the following:
  - (1) Calendar dates covered in the reporting period; [40 C.F.R. § 60.48c(e)(1)]
  - (2) Records of fuel supplier certifications; [40 C.F.R. § 60.48c(e)(11)] and
  - (3) Any instances of excess emissions (including opacity) from Boilers #P1, #P2, and #P3. [40 C.F.R. § 60.48c(c)]
- d. The semi-annual reports are due within 30 days of the end of each six-month period. [40 C.F.R. § 60.48c(j)]

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

**A. Fuel**

- 1. Vaporizers #1 and #2 shall only fire LPG. [06-096 C.M.R. ch. 115, BPT]
- 2. Compliance shall be demonstrated by fuel records from the supplier showing the type of fuel delivered. [06-096 C.M.R. ch. 115, BPT]

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

Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Vaporizers #1 and #2 [each]	0.06	0.06	0.01	0.16	0.09	0.01

C. Visible emissions from Vaporizers #1 and #2 shall each not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

(19) **Generators #1, #2, and #3**

A. Generators #1 and #2 are licensed to fire distillate fuel and Generator #3 is licensed to fire LPG. [06-096 C.M.R. ch. 115, BPT]

B. Emissions shall not exceed the following:

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

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

Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1	0.55	0.55	0.01	5.93	0.80	0.12
Generator #2	0.61	0.61	0.01	11.66	1.25	0.03
Generator #3	0.02	0.02	0.01	0.10	0.49	0.41

D. Visible Emissions

1. Visible emissions from Generators #1 and #2 shall each not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

2. Visible emissions from Generator #3 shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BPT]

- E. Generators #1 and #2 shall meet the applicable requirements of 40 C.F.R. Part 60, Subpart III, including the following: [incorporated under 06-096 C.M.R. ch. 115, BPT]
1. **Manufacturer Certification**  
The engines 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**  
The fuel fired in the engines shall not exceed 15 ppm sulfur (0.0015% sulfur), except that any existing fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. Compliance with the fuel sulfur content limit shall be based on fuel records from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [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 each engine. [40 C.F.R. § 60.4209(a)]
  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). 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. BYF shall keep records that include maintenance conducted on each engine and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason each engine was in operation during each time. [40 C.F.R. § 60.4214(b)]
  5. **Operation and Maintenance**  
The engines shall be operated and maintained according to the manufacturer's emission-related written instructions or procedures developed by BYF that are approved by the engine manufacturer. BYF may only change those emission-related settings that are permitted by the manufacturer. [40 C.F.R. § 60.4211(a)]

F. Generator #3 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]

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. [40 C.F.R. § 60.4233]

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, BPT]

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, BPT]

b. BYF 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 BYF that are approved by the engine manufacturer. BYF may only change those settings that are permitted by the manufacturer. [40 C.F.R. § 60.4243]

(20) **Fugitive Emissions**

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity, except for no more than five minutes in any one-hour period during which time visible emissions shall not exceed 30% opacity. Compliance shall be determined by an aggregate of the individual fifteen-second opacity observations which exceed 20% in any one hour. [06-096 C.M.R. ch. 115, BPT]

(21) **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. 115, BPT]

(22) **Annual Emission Statement**

In accordance with *Emission Statements*, 06-096 C.M.R. ch. 137, the licensee shall annually report to the Department, in a format prescribed by the Department, the information necessary to accurately update the State's emission inventory. The emission statement shall be submitted as specified by the date in 06-096 C.M.R. ch. 137.

(23) BYF 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).

DONE AND DATED IN AUGUSTA, MAINE THIS 3 DAY OF January, 2018.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Cone for  
PAUL MERCER, 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: 5/8/2017  
Date of application acceptance: 5/10/2017

Date filed with the Board of Environmental Protection:

This Order prepared by Jonathan E. Rice, Bureau of Air Quality.

