



STATE OF MAINE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION



PAUL R. LEPAGE  
GOVERNOR

AVERY T. DAY  
ACTING COMMISSIONER

**F.R. Carroll, Inc.**  
**York County**  
**Limerick, Maine**  
**A-478-71-P-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 Annotated (M.R.S.A.), §344 and §590, the Maine Department of Environmental Protection (Department) finds the following facts:

**I. REGISTRATION**

**A. Introduction**

F.R. Carroll, Inc. (FRC) has applied to renew their Air Emission License permitting the operation of emission sources associated with their hot mix asphalt plant, concrete batch plant, and their crushed stone and gravel facility.

The equipment addressed in this license is located at 25 Doles Ridge Road, Limerick, Maine.

**B. Emission Equipment**

The following equipment is addressed in this air emission license:

**Asphalt Plant**

<b><u>Equipment</u></b>	<b><u>Process Rate</u></b> <b><u>(Ton/hr)</u></b>	<b><u>Design Capacity</u></b> <b><u>Firing Rate</u></b>	<b><u>Pollution Control</u></b> <b><u>Equipment</u></b>	<b><u>Date of</u></b> <b><u>Manufacture</u></b>
Batch mix asphalt plant	300	79.9 MMBtu/hr, propane distillate, 0.05% S	Baghouse, Low NO <sub>x</sub> Burner	2007

**Concrete**

<b><u>Equipment</u></b>	<b><u>Production Rate</u></b> <b><u>(cubic yards/hour)</u></b>	<b><u>Control Devices</u></b>
Concrete Batch Plant	80	Baghouse

AUGUSTA  
17 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0017  
(207) 287-7688 FAX: (207) 287-7826  
RAY BLDG., HOSPITAL ST.

BANGOR  
106 HOGAN ROAD, SUITE 6  
BANGOR, MAINE 04401  
(207) 941-4570 FAX: (207) 941-4584

PORTLAND  
312 CANCO ROAD  
PORTLAND, MAINE 04103  
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE  
1235 CENTRAL DRIVE, SKYWAY PARK  
PRESQUE ISLE, MAINE 04769  
(207) 764-0477 FAX: (207) 760-3143

**Rock Crushers (RC)**

<u>Equipment</u>	<u>Description</u>	<u>Production Rate</u> (Tons/hour)	<u>Date of Manu.</u>	<u>Control Device</u>
RC #1	Primary Jaw	250	1984	Spray Nozzles
RC #2	Gyro #1	250	2004	Spray Nozzles
RC #3	Secondary Jaw	125	2001	Spray Nozzles
RC #4	Gyro #2	125	1984	Spray Nozzles

**Generators**

<u>Equipment</u>	<u>Power Output KW</u>	<u>Firing Rate (gal/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Date of Manuf.</u>	<u>Date of Install.</u>
Generator #1	1000	70.7	Distillate, 0.0015 % S	2000	2013
*Generator #4	82	5.8	Distillate, 0.0015 %S	1998	1999
Generator #5	1000	70.7	Distillate, 0.0015 %S	2005	2007

\* Generator #4 is located off-site at a quarry owned by FRC, it is listed here for inventory purposes only

**Boiler**

<u>Equipment</u>	<u>Maximum Capacity</u>	<u>Maximum Firing Rate (gal/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Date of Manuf.</u>
Boiler #3	4.2 MMBtu/hr	30	Distillate, 0.05% S	1999

C. Definitions

*Distillate Fuel* means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials 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

The application for FRC 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 (CMR) 115 (as amended). With the annual heat input limit on the Asphalt Batch Plant of 105,000 MMBtu/yr and a total fuel use limit of the Generators #1, #4, and #5 and Boiler #3 to a limit of 100,000 gallons per year of distillate. The facility is licensed below the major source thresholds for criteria pollutants and is considered a synthetic minor. FRC is licensed below the major source thresholds for hazardous air pollutants (HAP), therefore, considered to be an area source of 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 CMR 100 (as amended). 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. Asphalt Plant

FRC operates an asphalt batch plant with a maximum hourly throughput of 300 ton/hr of asphalt and has a 79.9 MMBtu/hr burner firing primarily propane with distillate fuel as a back-up fuel. In the past it has been assumed that there is a linear relationship between the fuel required for an asphalt plant burner and the plant output. Meaning, it is assumed that to operate at 100% throughput requires the burner to fire at 100%, to operate at 75% throughput requires the burner to fire at 75%, etc. This assumption allows for an asphalt plant to have its annual emissions limited by placing a fuel limit on the burner.

However, in some cases it has been determined that the asphalt plant is operated significantly more efficiently than originally anticipated. This allows the burner to operate at a lower firing rate than would be expected for the asphalt output. Since emission factors for asphalt plants are based on tons of asphalt produced, without the

previously mentioned linear relationship between plant output and burner firing rate, a fuel limit on the asphalt plant is not sufficient to limit the equipment's annual emissions.

Therefore, to ensure annual emissions are limited to less than major source thresholds, asphalt throughput is limited instead of fuel consumption. Accordingly, the annual throughput of the asphalt batch plant shall not exceed 394,000 tons of asphalt per year on 12 month rolling total basis.

1. BPT Findings

The BPT emission limits for the asphalt plant when firing propane were based on the following:

- PM/PM<sub>10</sub> - 0.03 gr/dscf (06-096 CMR 115, BACT)
- SO<sub>2</sub> - 0.005 lb/ton from AP-42 Table 11.1-5 (natural gas) dated 3/04
- NO<sub>x</sub> - 0.025 lb/ton from AP-42 Table 11.1-5 (natural gas) dated 3/04
- CO - 0.40 lb/ton from AP-42 Table 11.1-5 (natural gas) dated 3/04
- VOC - 0.008 lb/ton from AP-42 Table 11.1-6 (natural gas) dated 3/04
- Opacity - 06-096 CMR 101

The BPT emission limits for the asphalt plant when firing propane are the following:

<u>Unit</u>	<u>Pollutant</u>	<u>gr/dscf</u>
Asphalt Plant	PM	0.03

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM<sub>10</sub> (lb/hr)</u>	<u>SO<sub>2</sub> (lb/hr)</u>	<u>NO<sub>x</sub> (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Asphalt Plant	12.8	12.8	1.4	7.5	120	2.5

The BPT emission limits for the asphalt plant when firing distillate were based on the following:

- PM/PM<sub>10</sub> - 0.03 gr/dscf and the use of a baghouse
- SO<sub>2</sub> - based on firing distillate fuel with a maximum sulfur content of 0.05% by weight
- NO<sub>x</sub> - 0.12 lb/ton based on AP-42, Table 11.1-5, dated 3/04
- CO - 0.40 lb/ton based on AP-42, Table 11.1-5, dated 3/04
- VOC - 0.008 lb/ton based on AP-42, Table 11.1-6, dated 3/04
- Opacity - 06-096 CMR 101 or previous BACT

The BPT emission limits for the asphalt plant when firing distillate are the following:

<u>Unit</u>	<u>Pollutant</u>	<u>gr/dscf</u>
Asphalt Plant	PM	0.03

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)
Asphalt Plant	12.8	12.8	4.0	36	120	2.5

Opacity - 06-096 CMR 101, *Visible Emission Regulation*: visible emissions from the asphalt plant baghouse shall not exceed 20% on a six (6) minute block average basis, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. This is consistent with the 40 CFR Part 60, Subpart I PM limit of 20% opacity.

General process emissions from the asphalt plant shall be controlled so as to prevent visible emissions in excess of 20% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block average in a 1-hour period.

Per 38 M.R.S.A. §603-A(2)(A)(3), as of July 1, 2018, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm). Therefore, beginning July 1, 2018, the distillate fuel purchased or otherwise obtained for use in asphalt plant shall not exceed 0.0015% by weight (15 ppm).

## 2. New Source Performance Standards

The batch mix asphalt plant was manufactured in 2007 and is therefore subject to the federal Environmental Protection Agency's (EPA) New Source Performance Standards (NSPS) 40 Code of Federal Regulation (CFR) Part 60, Subpart I *Standards of Performance for Hot Mix Asphalt Facilities* constructed or modified after June 11, 1973.

## 3. Control Equipment

The asphalt plant shall be controlled by a baghouse.

## 4. Periodic Monitoring

The performance of the baghouse shall be constantly monitored by either one of the following at all times the batch asphalt plant is operating:

- a. PM detector – when the detector signals excessive PM concentrations in the exhaust stream, FRC shall take corrective action within 24 hours, or immediately if opacity exceeds 20%.
- b. Personnel with a current EPA Method 9 visible emissions certification – when the opacity exceeds 20%, the hot mix asphalt plant is operating with insufficient control and corrective action shall be taken immediately.

FRC shall keep records of baghouse failures and baghouse maintenance.

FRC shall keep records of fuel use and tons of asphalt produced for the asphalt drum batch asphalt plant which shall be maintained for at least six years and made available to the Department upon request.

5. Contaminated Soils

FRC may process up to 10,000 cubic yards per year of soil contaminated by gasoline or distillate fuel without prior approval from the Department. This limit may be exceeded with written authorization from the Department. The plant owner or operator shall notify the Department (regional inspector) at least 24 hours prior to processing the contaminated soil and specify the contaminating fuel and quantity, origin of the soil and fuel and the disposition of the contaminated soil.

FRC shall not process soils which are classified as hazardous waste or which have unknown contaminants.

When processing contaminated soils, FRC shall maintain records which specify the quantity and type of contaminant in the soil as well as the origin and characterization of the contaminated soil. In addition, when processing contaminated soil, FRC shall maintain records of processing temperature, asphalt feed rates and dryer throughput on an hourly basis. The material shall be handled in accordance with the requirements of the Bureau of Remediation and Waste Management.

C. Concrete Batch Plant

The concrete batch plant is rated at 80 cubic yards/hour and includes three silos.

To meet the requirements of BPT for control of particulate matter (PM) emissions from the cement silos, particulate emissions shall be vented through baghouses maintained for 99% removal efficiency. Visible emissions from the cement silo baghouses are limited to no greater than 10% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block average in a 1-hour period. The facility shall take corrective action if visible emissions from the baghouses exceed 5% opacity.

All components of the concrete batch plant shall be maintained so as to prevent PM leaks. Visible emissions from concrete batching operations shall not exceed 20% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block average in a 1-hour period.

D. Rock Crushers

RC #1 is a portable unit manufactured in 1984 with a rated capacity of 250 tons per hour. RC #2 is a stationary unit manufactured in 2004 with a rated capacity of 250 tons per

hour. RC #3 and RC #4 are stationary units manufactured in 2001 and 1984, respectively, each with a rated capacity of 125 tons per hour. Therefore, RC #1, RC #2, RC #3 and RC#4 are subject to EPA New Source Performance Standards (NSPS) Subpart OOO for Nonmetallic Mineral Processing Plants manufactured after August 31, 1983, with capacities greater than 150 tons/hr for portable plants and greater than 25 tons/hr for non-portable plants.

The regulated pollutant from the rock crushers is particulate emissions. To meet the requirements of Best Practical Treatment (BPT) for control of particulate matter (PM) emissions from the rock crushers, FRC shall maintain water sprays on the rock crushers and operate as needed to control visible emissions. Visible emissions from the rock crushers shall be limited to no greater than 10% opacity on a six (6) minute block average basis.

**E. Fuel and Fuel Use Limits for Generators #1, Generator #5 and Boiler #3**

The total use of distillate fuel for Generators #1, Generator #5 and Boiler #3 shall not exceed 100,000 gallons per year of distillate fuel. The distillate fuel fired in the generators shall be limited to a maximum sulfur content of 0.0015% by weight. The fuel fired in Boiler #3 shall be limited to a maximum sulfur content of 0.05% by weight. Compliance shall be based on fuel receipts from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel. Records of annual fuel use shall be kept on a monthly and 12 month rolling total basis.

Per 38 M.R.S.A. §603-A(2)(A)(3), as of July 1, 2018, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm). Therefore, beginning July 1, 2018, the distillate fuel purchased or otherwise obtained for use in Boiler #3 shall not exceed 0.0015% by weight (15 ppm).

**F. Generators #1, #4, and #5**

The generators are generator sets with each gen set consisting of an engine and an electrical generator. In 2013, FRC has replaced Generators #1, #2, and #3 with a larger single unit named Generator #1 (A-478-71-O-A). FRC continues to operate Generators #4 and #5.

The “new” Generator #1 and Generator #5 power the rock crushers and the asphalt plant. The generators are rated at 9.7 MMBtu/hr and 9.7 MMBtu/hr, respectively, and fire distillate fuel. The generators were manufactured in 2000 and 2005, respectively.

1. BPT Findings for Generator #1

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

- PM/PM<sub>10</sub> - 0.12 lb/MMBtu from 06-096 CMR 103
- SO<sub>2</sub> - combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur)
- NO<sub>x</sub> - 3.2 lb/MMBtu from AP-42 dated 10/96, Table 3.4-1
- CO - 0.85 lb/MMBtu from AP-42 dated 10/96, Table 3.4-1
- VOC - 0.09 lb/MMBtu from AP-42 dated 10/96, Table 3.4-1
- Opacity - 06-096 CMR 101

The BPT emission limits for Generator #5 are based on the following:

- PM/PM<sub>10</sub> - 0.12 lb/MMBtu from 06-096 CMR 103
- SO<sub>2</sub> - combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur)
- NO<sub>x</sub> - 2.65 lb/MMBtu from vendor data
- CO - 0.166 lb/MMBtu from vendor data
- VOC - 0.095 lb/MMBtu from vendor data
- Opacity - 06-096 CMR 101

The BPT emission limits for the generators are as follows:

Unit	Pollutant	lb/MMBtu
Generator #1	PM	0.12
Generator #5	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 (9.7 MMBtu/hr), Distillate	1.16	1.16	0.01	31.04	8.25	0.87
Generator # 5 (9.7 MMBtu/hr), Distillate	1.16	1.16	0.01	25.71	1.61	0.92

Visible emissions from each of the generators shall not exceed 20% opacity on a 6-minute block average, except for no more than two (2) six (6) minute block averages in a 3-hour period.

2. 40 CFR Part 63, Subpart ZZZZ

The federal regulation 40 CFR Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal*



*Combustion Engines* is applicable to the generators listed above. The units are considered existing, stationary reciprocating internal combustion engines at an area source of HAP and are not subject to New Source Performance Standards regulations. EPA's August 9, 2010 memo (*Guidance Regarding Definition of Residential, Commercial, and Institutional Emergency Stationary RICE in the NESHAP for Stationary RICE*) specifically does not exempt these units from the federal requirements.

*Generator #4*

Generator #4 is an 82 kW (~115hp) unit located at an off-site quarry owned and operated by FRC. It is listed for inventory and informational purposes only. The unit is used to power FRC's communications equipment during power interruptions and is considered an emergency engine. Since the engine is an emergency compression ignition (CI) engine, it is subject to management practices outlined in Table 2d of the subpart.

40 CFR Part 63, Subpart ZZZZ Requirements for Generator #4;  
[40 CFR §63.6603(a), Table 2d, 4.]:

	<b>Operating Limitations* (40 CFR §63.6603(a) and Table 2(d))</b>
Emergency stationary CI RICE and black start Stationary CI RICE	<ul style="list-style-type: none"><li>- Change oil and filter every 500 hours of operation or annually, whichever comes first;</li><li>- Inspect the air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary; and</li><li>- Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.</li></ul>

The generator shall be operated and maintained according to the manufacturer's emission-related written instructions or FRC shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e)]

**Optional Oil Analysis Program**

FRC has the option of utilizing an oil analysis program which complies with the requirements of §63.6625(i) in order to extend the specified oil change requirement. If this option is used, FRC must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR §63.6625(i)]

Startup Idle and Startup Time Minimization Requirements

During periods of startup the FRC must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR §63.6625(h) & 40 CFR Part 63, Subpart ZZZZ Table 2d]

*Generators #1 and #5*

Although Generator #1 is a "new" unit at the facility, the unit was manufactured in 2000 and purchased as an existing piece of equipment. Therefore, it is considered existing and is subject to Subpart ZZZZ. A change of ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE. [40 CFR Part 63.6590 (a)(1)(iv)]

Generators #1 and #5 shall meet the following emissions limitations and operating limitations [40 CFR §63.6603(a), Table 2b, and Table 2d]:

<u>Unit</u>	<u>Applicable Requirement</u>
Generator #1	Limit CO to 23 ppmvd at 15% O <sub>2</sub> or reduce CO by 70% or more (unit is > 500hp)
Generator #5	Limit CO to 23 ppmvd at 15% O <sub>2</sub> or reduce CO by 70% or more (unit is > 500hp)

Operating Limitations for Existing Non-Emergency Compression Ignition Stationary RICE>500 hp [40 CFR §63, Subpart ZZZZ, Table 2b]

For Each...	You must meet the following operating limitation...
CI stationary RICE complying with the requirement to reduce CO emissions and using an oxidation catalyst	a. Maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and b. Maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F

Minimize the generator's time spent at idle and minimize the generator's start up time at startup to a period needed for appropriate and safe loading of the engine,

not to exceed 30 minutes, after which time the non-start up emission limitations apply. [40CFR 63 Subpart ZZZZ, Table 2d]

The distillate fuel fired in the generators shall not exceed 15 ppm sulfur (0.0015% sulfur). [40 CFR §63.6604]

If FRC's Generator #1 and #5 engines are equipped with breather caps meet the requirements for an open crankcase filtration emission control system. [40 CFR §63.6625 (g)]

FRC must follow the manufacturer's specified maintenance requirements for operating and maintaining the open crankcase ventilation system and replacing the crankcase files or the facility can request the administrator to approve different maintenance requirements that are as protective as manufacturer requirements. [40 CFR §63.6625(g)]

FRC conducted its initial performance test on September 10, 2014. The units were retested in July 2015 upon replacing the catalyst.

FRC must conduct subsequent performance tests every 8760 hours or 3 years whichever comes first unless a continuous emission monitoring system (CEMS) is used to demonstrate compliance. [40 CFR §63.6615, Table 3]

FRC shall demonstrate compliance with the numerical emission limitations established in Subpart ZZZZ based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 of this subpart. [40 CFR §63.6603, Table 4]

FRC shall comply with continuous compliance requirements, as applicable. [40 CFR §63.6625 (a) or (b), 63.6635, §63.6640 (a), (b), (e) and Table 5]

FRC shall comply with notifications, reports, and records, as applicable. [40 CFR §63.6645, §63.6650 (except §63.6650(g) & (h)), §63.6655 (except c and f), and §63.6660]

Semiannual Reporting [40 CFR §63.6650, Table 7]

- A. For semiannual compliance reports each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
- B. FRC shall submit to the EPA and the Bureau of Air Quality semiannual reports which must be postmarked or delivered no later than **January 31<sup>st</sup>** and **July 31<sup>st</sup>**, whichever date is the first date following the end of the semiannual reporting period. The facility's designated responsible official must sign this report.

- C. All instances of deviations from license requirements and the corrective action taken must be clearly identified and provided to the Department in summary form for each six-month interval.
- D. The compliance report shall contain information listed below:
- (1) Company name and address.
  - (2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
  - (3) Date of report and beginning and ending dates of the reporting period.
  - (4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with 40 CFR Part §63.6605(b), including actions taken to correct a malfunction.
  - (5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.
  - (6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in 40 CFR Part §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.

An example form can be found on EPA's RICE rule implementation page at this link:

<http://www3.epa.gov/ttn/atw/icengines/docs/RICESemiannualReportExample.pdf>

G. Boiler # 3

FRC operates Boiler #3 as a water heater in the concrete plant. During a site visit, it was noted that an additional burner was added increasing the potential heat input to 4.2 MMBtu/hr based on 30 gallons per hour of distillate. The boiler was installed in 1999 and exhausts through its own stack.

1. BPT Findings

The BPT emission limits for the Boiler #3 were based on the following:

Distillate Fuel

- |                     |   |  |
|---------------------|---|--|
| PM/PM <sub>10</sub> | – | 0.08 lb/MMBtu based on 06-096 CMR 115, BPT                                       |
| SO <sub>2</sub>     | – | based on firing distillate fuel with a maximum sulfur content of 0.05% by weight |

- NO<sub>x</sub> – 0.3 lb/MMBtu based on 06-096 CMR 115, BPT
- CO – 5 lb/1000 gal based on AP-42, Table 1.3-1, dated 5/10
- VOC – 0.34 lb/1000 gal based on AP-42, Table 1.3-3, dated 5/10
- Opacity – 06-096 CMR 101 or previous BACT

The BPT emission limits for the boiler are the following:

Unit	Pollutant	lb/MMBtu
Boiler #3	PM	0.08

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)
Boiler #3 distillate fuel	0.33	0.33	0.21	1.23	0.15	0.01

Visible emissions from Boiler #3 shall not exceed 20% opacity on a 6-minute block average, except for no more than one (1) six (6) minute block average in a 3-hour period.

The total fuel use for Boiler #3 and Generators #1 and #5 shall be limited to 100,000 gallons/year of distillate fuel. With a maximum sulfur content of 0.05% by weight for Boiler #3 and a maximum sulfur content of 0.0015% by weight for the Generators, based on a 12 month rolling total.

#### Fuel Sulfur Content Requirements

Boiler #3 is licensed to fire distillate fuel which, by definition, has a sulfur content of 0.05% or less by weight. Per 38 M.R.S.A. §603-A(2)(A)(3), as of July 1, 2018, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm). Therefore, beginning July 1, 2018, the distillate fuel purchased or otherwise obtained for use in Boiler #3 shall not exceed 0.0015% by weight (15 ppm).

#### 2. Periodic Monitoring

Periodic monitoring for Boiler #3 shall include recordkeeping to document fuel use both on a monthly and 12 month rolling total basis. Documentation shall include the type of fuel used and sulfur content of the fuel.

#### 3. 40 CFR Part 60, Subpart Dc

Due to the size or year of manufacture, Boiler #3 is not subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, for units greater than 10 MMBtu/hr manufactured after June 9, 1989.

4. 40 CFR Part 63, Subpart JJJJJ

Boiler #3 is subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* (40 CFR Part 63 Subpart JJJJJ). The unit is considered an existing oil boiler rated less than 10 MMBtu/hr.

A summary of the currently applicable federal 40 CFR Part 63 Subpart JJJJJ requirements is listed below. At this time, the Department has not taken delegation of this area source MACT (Maximum Achievable Control Technology) rule promulgated by EPA, however FRC is still subject to the requirements. Notification forms and additional rule information can be found on the following website:

<http://www3.epa.gov/ttn/atw/boiler/boilerpg.html>.

a. Compliance Dates, Notifications, and Work Practice Requirements

i. Initial Notification of Compliance

An Initial Notification shall be submitted to EPA.  
[40 CFR Part 63.11225(a)(2)]

ii. Boiler Tune-Up Program

(a) A boiler tune-up program shall be implemented. [40 CFR Part 63.11223]

(b) Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. See chart below:

<b>Boiler Category</b>	<b>Tune-Up Frequency</b>
Existing Oil with a heat input capacity of less than or equal to 5MMBtu/hr	Every 5 years

[40 CFR Part 63.11223(a) and Table 2]

(c) The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:

1. As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than or

- equal to 5 MMBtu/hr, boilers with oxygen trim systems, seasonal boilers, and limited use boilers. [40 CFR Part 63.11223(b)(1)]
2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 CFR Part 63.11223(b)(2)]
  3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than or equal to 5 MMBtu/hr, boilers with oxygen trim systems, seasonal boilers, and limited use boilers. [40 CFR Part 63.11223(b)(3)]
  4. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 CFR Part 63.11223(b)(4)]
  5. Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 CFR Part 63.11223(b)(5)]
  6. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 CFR Part 63.11223(b)(7)]
- (d) Tune-Up Report: A tune-up report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the following information:
1. The concentration of CO in the effluent stream (ppmv) and oxygen (volume percent) measured at high fire or typical operating load both **before** and **after** the boiler tune-up;
  2. A description of any corrective actions taken as part of the tune-up of the boiler; and
  3. The types and amounts of fuels used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit. [40 CFR §63.11223(b)(6)]
- (e) After conducting the initial boiler tune-up, a Notification of Compliance Status shall be submitted to EPA. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(b)]

iii. Compliance Report:

A compliance report shall be prepared by March 1<sup>st</sup> every five years which covers the previous five calendar years. The report shall be maintained by the source and submitted to the Department and to the EPA upon request. The report must include the items contained in §63.11225(b)(1) and (2), including the following: [40 CFR §63.11225(b)]

- (a) Company name and address;
- (b) A statement of whether the source has complied with all the relevant requirements of this Subpart;
- (c) A statement certifying truth, accuracy, and completeness of the notification and signed by a responsible official and containing the official's name, title, phone number, email address, and signature;
- (d) The following certifications, as applicable:
  - i. "This facility complies with the requirements in 40 CFR §63.11223 to conduct tune-ups of each boiler in accordance with the frequency specified in this Subpart."
  - ii. "No secondary materials that are solid waste were combusted in any affected unit."
  - iii. "This facility complies with the requirement in 40 CFR §§63.11214(d) to conduct a tune-up of each applicable boiler according to 40 CFR §63.11223(b)."

H. Fugitive Emissions

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed an opacity of 20%, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20% in any one (1) hour.

I. General Process Emissions

Visible emissions from any general process source shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period.



J. Annual Emissions

1. Total Annual Emissions

The tons per year limits were calculated based on 750,000 gallons/year of distillate fuel or a heat input of 105,000 MMBtu/yr if propane is fired in combination with distillate fuel or on its own in the Asphalt Batch Plant. The total fuel use in the Generators #1, #5 and Boiler #3 shall be limited to 100,000 gallons/year of distillate with a maximum sulfur content of 0.05% by weight for Boiler #3 and a maximum sulfur content of 0.0015% by weight for the generators. FRC shall be restricted to the following annual emissions, based on a 12 month rolling total:

**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>
Asphalt Batch Plant*	8.38	8.38	2.64	23.65	78.85	1.62
Boiler #3 and Generators*	0.82	0.82	0.36	30.21	6.51	2.40
<b>Total TPY</b>	<b>9.2</b>	<b>9.2</b>	<b>3.0</b>	<b>45.6</b>	<b>84.7</b>	<b>2.3</b>

\*Based on highest emissions for the category

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 CFR Part 52, Subpart A, §52.21, *Prevention of Significant Deterioration of Air Quality* rule. Greenhouse gases, as defined in 06-096 CMR 100 (as amended), 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 fuel use limits;
- worst case emission factors from the following sources: U.S. EPA's AP-42, the Intergovernmental Panel on Climate Change (IPCC), and 40 CFR Part 98, *Mandatory Greenhouse Gas Reporting*; and
- global warming potentials contained in 40 CFR 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 shall be determined by the Department on a case-by case basis. In accordance with 06-096 CMR 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:

<u>Pollutant</u>	<u>Tons/Year</u>
PM <sub>10</sub>	25
SO <sub>2</sub>	50
NO <sub>x</sub>	50
CO	250

### 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-478-71-P-R subject to the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License 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.A. §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 CMR 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 CMR 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 CMR 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353-A. [06-096 CMR 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege.  
[06-096 CMR 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 CMR 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 CMR 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 CMR 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 CMR 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR 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 CFR 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 CMR 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 CFR 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 CMR 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 CMR 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 CMR 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 CMR 115]

### **SPECIFIC CONDITIONS**

(16) **Facility Distillate Fuel Sulfur Content Requirements**

- A. Beginning July 1, 2018, the facility shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content exceeding 0.0015% by weight (15 ppm). [06-096 CMR 115, BPT]
- B. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, type, and the percent sulfur of the fuel delivered (if applicable). Records of annual fuel use shall be kept on a monthly and a 12 month rolling total basis. [06-096 CMR 115, BPT]

(17) **Batch Mix Asphalt Plant**

- A. The asphalt plant is licensed to fire propane and distillate fuel with a maximum sulfur content of 0.05% Sulfur. [06-096 CMR 115, BPT]
- B. The annual throughput of the asphalt plant shall not exceed 394,000 tons of asphalt per year. Records of asphalt productions shall be kept on a monthly and 12 month rolling total basis. [06-096 CMR 115, BPT]
- C. Emissions from the asphalt plant shall vent to a baghouse, and all components of the asphalt plant shall be maintained so as to prevent PM leaks. [06-096 CMR 115, BPT]
- D. The performance of the baghouse shall be constantly monitored by either one of the following at all times the hot mix asphalt plant is operating [06-096 CMR 115, BPT]:
1. PM detector – when the detector signals excessive PM concentrations in the exhaust stream, FRC shall take corrective action within 24 hours, or immediately if opacity exceeds 20%.
  2. Personnel with a current EPA Method 9 visible emissions certification – when the opacity exceeds 20%, the asphalt plant is operating with insufficient control and corrective action shall be taken immediately.

- E. To document maintenance of the baghouse, the licensee shall keep maintenance records recording the date and location of all bag failures as well as all routine maintenance. The maintenance records shall be kept on-site at the asphalt plant location. [06-096 CMR 115, BPT]
- F. Emissions from the asphalt plant baghouse shall not exceed the following when firing propane [06-096 CMR 115, BPT]:

<u>Pollutant</u>	<u>grs/dscf</u>	<u>lb/hr</u>
PM	0.03	12.8
PM <sub>10</sub>	-	12.8
SO <sub>2</sub>	-	1.4
NO <sub>x</sub>	-	7.5
CO	-	120
VOC	-	2.5

- G. Emissions from the asphalt plant baghouse shall not exceed the following when firing distillate [06-096 CMR 115, BPT]:

<u>Pollutant</u>	<u>grs/dscf</u>	<u>lb/hr</u>
PM	0.03	12.8
PM <sub>10</sub>	-	12.8
SO <sub>2</sub>	-	4.0
NO <sub>x</sub>	-	36
CO	-	120
VOC	-	2.5

- H. Opacity from the baghouse is limited to no greater than 20% on a six (6) minute block average basis, except for no more than two (2) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]
- I. General process emissions from the hot mix asphalt plant shall be controlled so as to prevent visible emissions in excess of 20% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block average in a 1-hour period. [06-096 CMR 101]

- J. The Batch Mix Asphalt Plant is subject to 40 CFR Part 60 Subparts A and I, and FRC shall comply with all applicable requirements, including the notification and recordkeeping requirements of 40 CFR Part 60.7.
- K. FRC may process up to 10,000 cubic yards per year of soil contaminated by gasoline or distillate fuel without prior approval from the Department. This limit may be exceeded with written authorization from the Department. The plant owner or operator shall notify the Department (regional inspector) at least 24 hours prior to processing the contaminated soil and specify the contaminating fuel and quantity, origin of the soil and fuel and the disposition of the contaminated soil. [06-096 CMR 115, BPT]
- L. FRC shall not process soils which are classified as hazardous waste or which have unknown contaminants. [06-096 CMR 115, BPT]
- M. When processing contaminated soils, FRC shall maintain records which specify the quantity and type of contaminant in the soil as well as the origin and characterization of the contaminated soil. In addition, when processing contaminated soil, FRC shall maintain records of processing temperature, asphalt feed rates and dryer throughput on an hourly basis. The material shall be handled in accordance with the requirements of the Bureau of Remediation and Waste Management. [06-096 CMR 115, BPT]

(18) **Concrete Batch Plant**

- A. Particulate emissions from the cement silos shall be vented through baghouses and all components of the concrete batch plant shall be maintained so as to prevent PM leaks. [06-096 CMR 115, BPT]
- B. To document maintenance on each cement silo baghouse, the licensee shall keep a maintenance record recording the date and location of all bag failures as well as all routine maintenance. The maintenance record shall be kept on-site at the concrete batch plant location. [06-096 CMR 115, BPT]
- C. Opacity from each cement silo baghouse is limited to no greater than 10% on a 6-minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. FRC shall take corrective action if visible emissions from the each baghouse exceed 5% opacity. [06-096 CMR 101]
- D. PM emissions from the concrete batching operation shall be controlled so as to prevent visible emissions in excess of 20% opacity on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. [06-096 CMR 101]

(19) **Rock Crushers**

- A. FRC shall install and maintain spray nozzles for particulate control on each rock crusher and operate them as necessary to limit visible emissions to no greater than 10% opacity on a six (6) minute block average basis. [06-096 CMR 115, BPT and 06-096 CMR 101]
- B. FRC shall maintain records detailing and quantifying the hours of operation on a daily basis for all of the primary, secondary and tertiary rock crushers. The operation records shall be kept on-site at the rock crushing location. [06-096 CMR 115, BPT]
- C. FRC shall maintain records detailing the maintenance on particulate matter control equipment (including spray nozzles). FRC shall perform monthly inspections of any water sprays to ensure water is flowing to the correct locations and initiate corrective action within 24 hours if water is found to not be flowing properly. Records of the date of each inspection and any corrective action required shall be included in the maintenance records. The maintenance records shall be kept on-site at the rock crushing location. [06-096 CMR 115, BPT]
- D. The portable crusher, RC#1, shall not be attached or clamped via cable, chain, turnbuckle, bolt, or other means (except electrical connections) to any anchor, slab, or structure (including bedrock) that must be removed prior to transportation. [06-096 CMR 115, BPT]
- E. RC #1, RC #2, RC #3, and RC #4 are subject to 40 CFR Part 60 Subparts A and OOO and FRC shall comply with the notification and record keeping requirements of 40 CFR Part 60.676 and Part 60.7, except for Section (a)(2) of 60.7 per Subpart OOO, §60.676(h).

(20) **General Generator Requirements**

- A. Total fuel use for Generators #1 and #5 and Boiler #3, inclusive, shall not exceed 100,000 gallons per year of distillate fuel. The maximum sulfur content shall not exceed 0.0015% by weight for the Generators. Compliance shall be based on fuel receipts from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel. Records of annual fuel use shall be kept on a monthly and a 12 month rolling total basis. [06-096 CMR 115, BPT]
- B. Emissions shall not exceed the following:

Emission Unit	Pollutant	Lb/MMBtu	Origin and Authority
Generator #1	PM	0.12	06-096 CMR 103(2)(B)(1)(a)
Generator #5	PM	0.12	06-096 CMR 103(2)(B)(1)(a)



C. Emissions shall not exceed the following [06-096 CMR 115, /BPT]

Emission Unit	PM (lb/hr)	PM10 (lb/hr)	SO2 (lb/hr)	NOx (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator #1	1.16	1.16	0.02	31.04	8.25	0.87
Generator #5	1.16	1.16	0.02	*25.71	*1.61	*0.92

\* based on vendor data

D. Visible Emissions from Generators #1 and #5, shall not exceed 20% opacity on a six (6) minute block average, except for no more than two (2) six (5) minute block averages in a continuous 3-hour period [ 06-096 CMR 101]

(21) **Generators #1 & #5**

FRC shall comply with all the requirements of 40 CFR Part 63, Subpart ZZZZ as applicable to Generators #1 and #5 including, but not limited to, the following:

A. Generators #1 and #5 shall meet the following emissions limitations and operating limitations [40 CFR §63.6603(a), Table 2b, and Table 2d and 06-096 CMR 115]:

Unit	Applicable Requirement
Generator #1	Limit CO to 23 ppmvd at 15% O <sub>2</sub> or reduce CO by 70% or more (unit is > 500hp)
Generator #5	Limit CO to 23 ppmvd at 15% O <sub>2</sub> or reduce CO by 70% or more (unit is > 500hp)

B. Generators #1 and #5 shall meet the following if an oxidation catalyst is being used to comply with the requirement to reduce CO emissions:

1. Maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and
2. Maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F [06-096 CMR 115, BPT, and 40 CFR §63, Subpart ZZZZ, Table 2b]

C. FRC shall minimize the time the generators spend at idle and minimize the generator's start up time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-start up emission limitations apply. [06-096 CMR 115, BPT, and 40CFR 63 Subpart ZZZZ, Table 2d]

D. The distillate fuel fired in the generators shall not exceed 15 ppm sulfur (0.0015% sulfur). [06-096 CMR 115, BACT/BPT, 40 CFR §63.6604]

- E. FRC shall operate the following for Generators #1 and #5 with breather caps, an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist particulates, and metals. [06-096 CMR 115, BPT, 40 CFR §63.6625 (g)]
- F. FRC must follow the manufacturer's specified maintenance requirements for operating and maintaining the open crankcase ventilation system and replacing the crankcase filters or the facility can request the administrator to approve different maintenance requirements that are as protective as manufacturer requirements. [06-096 CMR 115, BPT, and 40 CFR §63.6625(g)]
- G. FRC shall demonstrate compliance with the numerical emission limitations established in Subpart ZZZZ based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 of this subpart. [06-096 CMR 115, BPT, 40 CFR §63.6603, Table 4]
- H. FRC shall conduct subsequent performance tests every 8760 hours or 3 years whichever comes first unless continuous emission monitoring system (CEMS). [06-096 CMR 115, BPT, and 40 CFR §63.6615, Table 3]
- I. FRC shall comply with continuous compliance requirements, as applicable. [06-096 CMR 115, BPT, 40 CFR §63.6625 (a) or (b), 63.6635, §63.6640 (a), (b), (e) and Table 5]
- J. FRC shall comply with notifications, reports, and records, as applicable. [06-096 CMR 115, BPT, 40 CFR §63.6645, §63.6650 (except §63.6650(g) & (h)), §63.6655 (except c and f), and §63.6660]
- K. Semiannual Reporting [40 CFR §63.6650, Table 7]
  - 1. For semiannual compliance reports each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
  - 2. FRC shall submit to the EPA and the Bureau of Air Quality semiannual reports which must be postmarked or delivered no later than **January 31<sup>st</sup>** and **July 31<sup>st</sup>**, whichever date is the first date following the end of the semiannual reporting period. The facility's designated responsible official must sign this report.
  - 3. All instances of deviations from license requirements and the corrective action taken must be clearly identified and provided to the Department in summary form for each six-month interval.
  - 4. The compliance report shall contain information listed below:
    - a. Company name and address.
    - b. Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
    - c. Date of report and beginning and ending dates of the reporting period.

- d. If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with 40 CFR Part §63.6605(b), including actions taken to correct a malfunction.
- e. If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.
- f. If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in 40 CFR Part §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.

(22) **Boiler #3**

A. Boiler #3 is licensed to burn distillate with a maximum sulfur content not to exceed 0.05% by weight. Compliance shall be based on fuel receipts from the supplier showing the quantity of fuel delivered and the percent sulfur of the fuel. Records of annual fuel use shall be kept on a monthly and a 12 month rolling total basis. [06-096 CMR 115, BPT]

B. Emissions from Boiler #3 shall not exceed the following [06-096 CMR 115, BPT]:

<b>Unit</b>	<b>Pollutant</b>	<b>lb/MMBtu</b>
Boiler #3	PM	0.08

<b>Emission Unit</b>	<b>PM (lb/hr)</b>	<b>PM<sub>10</sub> (lb/hr)</b>	<b>SO<sub>2</sub> (lb/hr)</b>	<b>NO<sub>x</sub> (lb/hr)</b>	<b>CO (lb/hr)</b>	<b>VOC (lb/hr)</b>
Boiler #3	0.33	0.33	0.21	1.23	0.15	0.01

C. Visible emissions from Boiler #3 shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 101]

D. Boiler MACT (40 CFR Part 63, Subpart JJJJJ) Requirements for Boiler # 3 [incorporated under 06-096 CMR 115, BPT]

1. The facility shall implement a boiler tune-up program. [40 CFR Part 63.11223]

- a. Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. See chart below:

<b>Boiler Category</b>	<b>Tune-Up Frequency</b>
Existing Oil Boiler with a heat input capacity of less than or equal to 5MMBtu/hr	Every 5 years

[40 CFR Part 63.11223(a) and Table 2]

- b. The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:
- (i) As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than or equal to 5 MMBtu/hr, boilers with oxygen trim systems, seasonal boilers, and limited use boilers. [40 CFR Part 63.11223(b)(1)]
  - (ii) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 CFR Part 63.11223(b)(2)]
  - (iii) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted; not to exceed 36 months from the previous inspection for boilers greater than 5 MMBtu/hr or 72 months from the previous inspection for oil fired boilers less than or equal to 5 MMBtu/hr, boilers with oxygen trim systems, seasonal boilers, and limited use boilers. [40 CFR Part 63.11223(b)(3)]
  - (iv) Optimize total emissions of CO, consistent with manufacturer's specifications. [40 CFR Part 63.11223(b)(4)]
  - (v) Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 CFR Part 63.11223(b)(5)]
  - (vi) If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 CFR Part 63.11223(b)(7)]
- c. Tune-Up Report: A tune-up report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the following information:

- (i) The concentration of CO in the effluent stream (ppmv) and oxygen (volume percent) measured at high fire or typical operating load both **before** and **after** the boiler tune-up;
- (ii) A description of any corrective actions taken as part of the tune-up of the boiler; and
- (iii) The types and amounts of fuels used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.

[40 CFR §63.11223(b)(6)]

- d. After conducting the initial boiler tune-up, a Notification of Compliance Status shall be submitted to EPA electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) through EPA's Central Data Exchange. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(b)]

## 2. Compliance Report:

A compliance report shall be prepared by March 1<sup>st</sup> every five years which covers the previous five calendar years. The report shall be maintained by the source and submitted to the Department and to the EPA upon request. The report must include the items contained in §63.11225(b)(1) and (2), including the following:

[40 CFR §63.11225(b)]

- a. Company name and address;
- b. A statement of whether the source has complied with all the relevant requirements of this Subpart;
- c. A statement certifying truth, accuracy, and completeness of the notification and signed by a responsible official and containing the official's name, title, phone number, email address, and signature;
- d. The following certifications, as applicable:
  - (i) "This facility complies with the requirements in 40 CFR §63.11223 to conduct tune-ups of each boiler in accordance with the frequency specified in this Subpart."
  - (ii) "No secondary materials that are solid waste were combusted in any affected unit."
  - (iii) "This facility complies with the requirement in 40 CFR §§63.11214(d) to conduct a tune-up of each applicable boiler according to 40 CFR §63.11223(b)."

## (23) **Fugitive Emissions**

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed an opacity of 20%, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen

(15)-second opacity observations which exceed 20% in any one (1) hour. [06-096 CMR 101]

(24) **General Process Sources**

Visible emissions from any general process source shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. [06-096 CMR 101]

(25) **Equipment Relocation [06-096 CMR 115, BPT]**

A. FRC shall notify the Bureau of Air Quality, by a written notification, prior to relocation of any equipment carried on this license. It is preferred for notice of relocation to be submitted through the Department's on-line e-notice at: [www.maine.gov/dep/air/compliance/forms/relocation](http://www.maine.gov/dep/air/compliance/forms/relocation)

Written notice may also be sent by fax (207-287-7641) or mail. Notification sent by mail shall be sent to the address below:

Attn: Relocation Notice  
Maine DEP  
Bureau of Air Quality  
17 State House Station  
Augusta, ME 04333-0017

The notification shall include the address of the equipment's new location, an identification of the equipment and the license number pertaining to the relocated equipment.

B. Written notification shall also be made to the municipality where the equipment will be relocated, except in the case of an unorganized territory where notification shall be made to the respective county commissioners.

(26) FRC shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order. [06-096 CMR 115, BPT]

(27) **Annual Emission Statement**

In accordance with *Emission Statements*, 06-096 CMR 137 (as amended), 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 CMR 137.

- (28) FRC 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.A. §605).

DONE AND DATED IN AUGUSTA, MAINE THIS 20 DAY OF November, 2015.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: *Marv Allen Robert Case for*  
AVERY T. DAY, ACTING COMMISSIONER

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

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 3/21/2014

Date of application acceptance: 3/26/2014

Date filed with the Board of Environmental Protection:

This Order prepared by Lisa P. Higgins, Bureau of Air Quality.

