# STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION





Loring Development Authority of Maine Aroostook County Limestone, Maine A-649-71-H-R/A (SM) Departmental
Findings of Fact and Order
Air Emission License
Renewal with Amendment

#### 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

Loring Development Authority of Maine (LDA) has applied to renew their Air Emission License. LDA has responsibility over several buildings and hangers of the former Loring Air Force Base. This license is for operation of boilers and emergency generators associated with those buildings.

LDA has requested an amendment to their license in order to update the list of boilers and internal combustion engines currently under their control.

LDA's main offices are located at 154 Development Drive in Limestone, Maine.

#### B. Emission Equipment

The following equipment is addressed in this air emission license:

#### **Boilers**

<u>Equipment</u>	Maximum Capacity (MMBtu/hr)	Maximum Firing Rate (gal/hr)	Fuel Type, <u>% sulfur</u>
B0291*	1.1	7.9	distillate fuel, 0.5%
B2501-1*	1.1	7.5	distillate fuel, 0.5%
B2501-2*	1.1	7.5	distillate fuel, 0.5%

# **Boilers (Cont.)**

	Maximum	Maximum	E LE
Equipment	Capacity (MMBtu/hr)	Firing Rate (gal/hr)	Fuel Type, % sulfur
B5001*	1.8	12.6	distillate fuel, 0.5%
B5100*	1.8	12.6	distillate fuel, 0.5%
20100	1.0	19.5	propane, negligible
B5302*	1.8	12.6	distillate fuel, 0.5%
B5902-1	9.7	69.3	distillate fuel, 0.5%
B5902-2	8.7	62.1	distillate fuel, 0.5%
B5910*	2.5	17.4	distillate fuel, 0.5%
B6540*	3.1	22.0	distillate fuel, 0.5%
B7500*	3.2	23.0	distillate fuel, 0.5%
B7501-1*	1.8	12.6	distillate fuel, 0.5%
B7501-2*	1.3	8.9	distillate fuel, 0.5%
B8200*	3.4	24.5	distillate fuel, 0.5%
B8202*	1.5	10.4	distillate fuel, 0.5%
B8250-E Door*	1.1	7.9	distillate fuel, 0.5%
B8250-W Door*	1.7	12.2	distillate fuel, 0.5%
B8250-E Floor	8.0	57.1	distillate fuel, 0.5%
B8250-W Floor	8.0	57.1	distillate fuel, 0.5%
B8255*	1.4	9.7	distillate fuel, 0.5%
B8260*	3.7	26.5	distillate fuel, 0.5%
B8390	5.4	38.5	distillate fuel, 0.5%
B8700*	3.1	22.0	distillate fuel, 0.5%
B8702*	2.7	19.6	distillate fuel, 0.5%
		30.3	propane, negligible
B8710	3.4	24.5	distillate fuel, 0.5%
B8712	2.8	19.8	distillate fuel, 0.5%
B8713-N	4.4	31.5	distillate fuel, 0.5%
B8713-S	3.4	24.5	distillate fuel, 0.5%

<sup>\*</sup>Indicates equipment not previously included in the air emission license.

LDA has several other boilers onsite with heat inputs less than 1.0 MMBtu/hr which are considered insignificant activities due to their size.

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#### **Engines**

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	Maximum Capacity	Firing Rate	Fuel Type,	Date of
<u>Equipment</u>	(MMBtu/hr)	(gal/hr)	<u>% sulfur</u>	Manuf.
G0291	0.9	6.4	distillate fuel, 0.0015%	pre-2006
G1203	3.5	25.6	distillate fuel, 0.0015%	pre-2006
G5007*	4.9	35.8	distillate fuel, 0.0015%	9/2006
G8203	6.0	43.8	distillate fuel, 0.0015%	pre-2006
G8390	0.9	6.4	distillate fuel, 0.0015%	pre-2006
G8700	2.3	16.8	distillate fuel, 0.0015%	pre-2006
G8713*	2.5	18.5	distillate fuel, 0.0015%	pre-2006
Trailer	3.5	25.6	distillate fuel, 0.0015%	pre-2006
Generator*				
WP0291*	2.3	16.6	distillate fuel, 0.0015%	pre-2006

<sup>\*</sup>Indicates equipment not previously included in the air emission license.

LDA has several other engines onsite with heat inputs less than 0.5 MMBtu/hr which are considered insignificant activities due to their size.

#### C. Definitions

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

- 1. 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;
- 2. Diesel fuel oil numbers 1 or 2, as defined in ASTM D975;
- 3. Kerosene, as defined in ASTM D3699;
- 4. Biodiesel, as defined in ASTM D6751; or
- 5. Biodiesel blends, as defined in ASTM D7467.

#### D. Application Classification

The application for LDA does not include the licensing of increased emissions. However, it does include the addition of equipment new to this license. Therefore, the license is considered to be a renewal with a minor modification processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (CMR) 115 (as amended). With the annual fuel limit on the boilers and the operating hours restriction on the emergency generators, the facility is licensed as follows:

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

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## 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.

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BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in *Definitions Regulation*, 06-096 CMR 100 (as amended). BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

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

LDA operates many small boilers throughout the former Loring Air Force Base for facility heating and hot water needs. All of the boilers fire distillate fuel. Two of the boilers (B5100 and B8702) are also able to fire propane.

#### 1. BACT/BPT Findings

The BACT/BPT emission limits for the boilers were based on the following:

#### Distillate Fuel

PM/PM<sub>10</sub> - 0.08 lb/MMBtu based on 06-096 CMR 115, BACT/BPT
SO<sub>2</sub> - based on firing distillate fuel with a maximum sulfur content of 0.5% by weight
NO<sub>x</sub> - 20 lb/1000 gal based on AP-42 Table 1.3-1 dated 5/10
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

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# **Propane**

PM/PM<sub>10</sub> – 0.05 lb/MMBtu based on 06-096 CMR 115, BACT

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 — 1.0 lb/1000 gal based on AP-42 Table 1.5-1 dated 7/08

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Opacity - 06-096 CMR 101

# The BACT/BPT emission limits for the boiler are the following:

Unit	<u>Pollutant</u>	<u>lb/MMBtu</u>
B5902-1	PM	0.08
B5902-2	PM	0.08
B6540	PM	0.08
B7500	PM	0.08
B8200	PM	0.08
B8250-E Floor	PM	0.08
B8250-W Floor	PM	0.08
B8260	PM	0.08
B8390	PM	0.08
B8700	PM	0.08
B8710	PM	0.08
B8713-S	PM	0.08
B8713-N	PM	0.08

	PM	PM <sub>10</sub>	$SO_2$	NO <sub>x</sub>	CO	VOC
<u>Unit</u>	(lb/hr)	(lb/hr)	<u>(lb/hr)</u>	<u>(lb/hr)</u>	<u>(lb/hr)</u>	<u>(lb/hr)</u>
B0291	0.09	0.09	0.55	0.16	0.04	-
B2501-1	0.08	0.08	0.53	0.15	0.04	
B2501-2	0.08	0.08	0.53	0.15	0.04	
B5001	0.14	0.14	0.89	0.25	0.06	_
B5100 (oil)	0.14	0.14	0.89	0.25	0.06	
B5100 (propane)	0.09	0.09		0.25	0.15	0.02
B5302	0.14	0.14	0.89	0.25	0.06	_
B5902-1	0.78	0.78	4.88	1.39	0.35	0.02
B5902-2	0.70	0.70	4.38	1.24	0.31	0.02
B5910	0.20	0.20	1.23	0.35	0.09	0.01
B6540	0.25	0.25	1.56	0.44	0.11	0.01
B7500	0.26	0.26	1.62	0.46	0.12	0.01
B7501-1	0.14	0.14	0.89	0.25	0.06	
B7501-2	0.10	0.10	0.63	0.18	0.04	

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	PM	PM <sub>10</sub>	$SO_2$	NO <sub>x</sub>	CO	VOC
<u>Unit</u>	( <u>lb/hr)</u>	(lb/hr)	<u>(lb/hr)</u>	(lb/hr)	(lb/hr)	<u>(lb/hr)</u>
B8200	0.27	0.27	1.73	0.49	0.12	0.01
B8202	0.12	0.12	0.73	0.21	0.05	
B8250-E Door	0.09	0.09	0.55	0.16	0.04	_
B8250-W Door	0.14	0.14	0.86	0.24	0.06	1
B8250-E Floor	0.64	0.64	4.03	1.14	0.29	0.02
B8250-W Floor	0.64	0.64	4.03	1.14	0.29	0.02
B8255	0.11	0.11	0.68	0.19	0.05	_
B8260	0.30	0.30	1.87	0.53	0.13	0.01
B8390	0.43	0.43	2.71	0.77	0.19	0.01
B8700	0.25	0.25	1.55	0.44	0.11	0.01
B8702 (oil)	0.22	0.22	1.38	0.39	0.10	0.01
B8702 (propane)	0.14	0.14	_	0.39	0.23	0.03
B8710	0.27	0.27	1.73	0.49	0.12	0.01
B8712	0.22	0.22	1.39	0.40	0.10	0.01
B8713-N	0.35	0.35	2.22	0.63	0.16	0.01
B8713-S	0.27	0.27	1.73	0.49	0.12	0.01

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

Visible emissions from the boilers firing propane shall not exceed 10% opacity on a 6-minute block average basis, except for no more than one (1) six (6) minute block average in a 3-hour period.

LDA shall be limited to 600,000 gallons/yr of distillate fuel for all boilers combined. There is no limit on the use of propane in boilers B5100 and B8702.

#### Fuel Sulfur Content Requirements

The boilers are licensed to fire distillate fuel which, by definition, has a sulfur content of 0.5% 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 LDA's boilers shall not exceed 0.0015% by weight (15 ppm).

#### 2. Periodic Monitoring

Periodic monitoring for the boilers shall include recordkeeping to document fuel use both on a monthly and calendar year basis. Documentation shall include the type of fuel used and sulfur content of the fuel.

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

Due to their size, none of LDA's boilers are 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.

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### 4. 40 CFR Part 63, Subpart JJJJJJ

Boilers B0291, B2501-1, B2501-2, B8202, B8250-E Door, and B8255 are each less than 1.6 MMBtu/hr are <u>not</u> subject to *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* (40 CFR Part 63 Subpart JJJJJJ) as they are considered hot water heaters exempt under 40 CFR Part 63, §11195(f).

The remaining boilers listed in this license are subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources* (40 CFR Part 63 Subpart JJJJJJ). These units are considered existing oil boilers rated less than 10 MMBtu/hr.

Gas-fired boilers (including propane) are exempt from 40 CFR Part 63, Subpart JJJJJJ. 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 CFR Part 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.

A summary of the currently applicable federal 40 CFR Part 63 Subpart JJJJJJ 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 LDA is still subject to the requirements. Notification forms and additional rule information can be found on the following website: <a href="http://www.epa.gov/ttn/atw/boiler/boilergg.html">http://www.epa.gov/ttn/atw/boiler/boilergg.html</a>.

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a. Compliance Dates, Notifications, and Work Practice Requirements

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(1) Initial Notification of Compliance

An Initial Notification submittal to EPA was due no later than January 20, 2014. [40 CFR Part 63.11225(a)(2)]

- (2) Boiler Tune-Up Program
  - (i) A boiler tune-up program shall be implemented. [40 CFR Part 63.11223]
  - (ii) 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:

Boiler Category	Tune-Up Frequency
Existing Oil fired boilers that are not designated as "Boilers with less frequent tune up	E. 1007. 2 - 10000
requirements" listed below	Every 2 years
Existing Oil fired Boilers with less frequent tune up requirements	
Seasonal (see definition §63.11237)	Every 5 years
Limited use (see definition §63.11237)	Every 5 years
Heat input capacity of ≤5MMBtu/hr	Every 5 years
Boiler with oxygen trim system which maintains an optimum air-to-fuel ratio that would	
otherwise be subject to a biennial tune up	Every 5 years

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

- (iii) 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. Delay of the burner inspection until the next scheduled shutdown is permitted for up to 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, <u>as applicable</u>, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 CFR Part 63.11223(b)(2)]

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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. Delay of the inspection until the next scheduled shutdown is permitted for up to 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)]

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- 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)]
- (iv) <u>Tune-Up Report</u>: 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)]
- (v) After conducting the initial boiler tune-up, a Notification of Compliance Status was to be submitted to EPA no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(b)]

### (3) Compliance Report:

A compliance report shall be prepared by March 1<sup>st</sup> biennially or every five years which covers the previous two or five calendar years (as appropriate). The report shall be maintained by the source and submitted to

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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)]

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- (i) Company name and address;
- (ii) A statement of whether the source has complied with all the relevant requirements of this Subpart;
- (iii)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;
- (iv) The following certifications, as applicable:
  - 1. "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."
  - 2. "No secondary materials that are solid waste were combusted in any affected unit."
  - 3. "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)."

## b. Recordkeeping

Records shall be maintained consistent with the requirements of 40 CFR Part 63, Subpart JJJJJJ including the following [40 CFR Part 63.11225(c)]:

- (1) Copies of notifications and reports with supporting compliance documentation;
- (2) Identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned;
- (3) Records of the occurrence and duration of each malfunction of each applicable boiler; and
- (4) Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.

Records shall be in a form suitable and readily available for expeditious review. EPA requires submission of Notification of Compliance Status reports for tuneups and energy assessments through their electronic reporting system. [63.1125(a)(4)(vi)]

#### C. Emergency Engines

LDA operates many emergency engines throughout the former Loring Air Force Base. These include seven stationary emergency generators, a portable emergency generator (known as the Trailer Generator), and one emergency water pump (WP0291). WP0291 is an emergency lift station water pump and not a fire pump.

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All of the emergency engines were manufactured prior to 2006 with the exception of G5007 which was manufactured in September 2006.

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## 1. BACT/BPT Findings

The BACT/BPT emission limits for the emergency engines less than 4.2 MMBtu/hr are based on the following:

PM/PM<sub>10</sub> - 0.12 lb/MMBtu from 06-096 CMR 115, BACT/BPT

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> - 4.41 lb/MMBtu from AP-42 Table 3.3-1 dated 10/96 CO - 0.95 lb/MMBtu from AP-42 Table 3.3-1 dated 10/96

VOC - 0.35 lb/MMBtu from AP-42 Table 3.3-1 dated 10/96

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The BACT/BPT emission limits for the emergency engines greater than 4.2 MMBtu/hr are based on the following:

PM/PM<sub>10</sub> - 0.12 lb/MMBtu from 06-096 CMR 115, BACT/BPT

SO<sub>2</sub> - combustion of distillate fuel with a maximum sulfur content

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

NO<sub>x</sub> - 3.2 lb/MMBtu from AP-42 Table 3.4-1 dated 10/96 CO - 0.85 lb/MMBtu from AP-42 Table 3.4-1 dated 10/96 VOC - 0.09 lb/MMBtu from AP-42 Table 3.4-1 dated 10/96

Opacity - 06-096 CMR 101

The BACT/BPT emission limits for the generators are the following:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>
G1203	PM	0.12
G5007	PM	0.12
G8203	PM	0.12
Trailer Generator	PM	0.12

	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
<u>Unit</u>	<u>(lb/hr)</u>	(lb/hr)	(lb/hr)	(lb/hr)	<u>(lb/hr)</u>	(lb/hr)
G0291	0.11	0.11		3.88	0.84	0.31
G1203	0.42	0.42	0.01	15.44	3.33	1.23
G5007	0.59	0.59	0.01	15.68	4.17	0.44
G8203	0.72	0.72	0.01	19.20	5.10	0.54
G8390	0.11	0.11	_	3.88	0.84	0.31
G8700	0.28	0.28		10.14	2.19	0.81

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	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
<u>Unit</u>	(lb/hr)	(lb/hr)	<u>(lb/hr)</u>	<u>(lb/hr)</u>	<u>(lb/hr)</u>	(lb/hr)
G8713	0.30	0.30		11.16	2.40	0.89
Trailer Generator	0.42	0.42	0.01	15.44	3.33	1.23
WP0291	0.27	0.27		10.05	2.17	0.80

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

Each of the emergency engines shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. There is no limit on emergency operation. Each emergency engine shall be equipped with a non-resettable hour-meter to record operating time. To demonstrate compliance with the operating hours limit, LDA shall keep records of the total hours of operation and the hours of emergency operation for each unit.

Emergency engines are only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Emergency engines are not to be used for prime power when reliable offsite power is available.

#### 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 not applicable to the emergency engines listed above. The units are considered existing, emergency stationary reciprocating internal combustion engines at an area HAP source. However, they are considered exempt from the requirements of Subpart ZZZZ since they are categorized as institutional emergency engines and they do not operate, or are not contractually obligated, to be available in a demand response program.

Operation of emergency engines in a demand response program would cause the engines to be subject to 40 CFR Part 63, Subpart ZZZZ, and require compliance with all applicable requirements.

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

The federal regulation 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE) is applicable to <u>G5007 only</u> since this unit was ordered after July 11, 2005 and manufactured after April 1, 2006.

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- a. Emergency Definition:
  - <u>Emergency stationary ICE</u> means any stationary reciprocating internal combustion engine that meets all of the following criteria:
  - (1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc. There is no time limit on the use of emergency stationary ICE in emergency situations.
  - (2) Paragraph (1) above notwithstanding, the emergency stationary ICE may be operated for any combination of the purposes specified below for a maximum of 100 hours per calendar year:
    - (i) 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 beyond 100 hours per calendar year.
    - (ii) An emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. These 50 hours are counted as part of the 100 hours per calendar year for maintenance checks and readiness testing as provided in paragraph (i) above.
      - The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving, non-emergency 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, except if the following conditions are met:
      - (A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
      - (B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

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(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

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- (D) The power is provided only to the facility itself or to support the local transmission and distribution system.
- (E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[40 CFR §60.4211(f) and §60.4219]

### b. 40 CFR Part 60, Subpart IIII Requirements:

(1) Manufacturer Certification Requirement

The engine shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in 40 CFR §60.4202. [40 CFR §60.4205(b)]

- (2) Ultra-Low Sulfur Fuel Requirement
  The fuel fired in the engine shall not exceed 15 ppm sulfur (0.0015% sulfur).
  [40 CFR §60.4207(b)]
- (3) Non-Resettable Hour Meter Requirement
  A non-resettable hour meter shall be installed and operated on the engine.
  [40 CFR §60.4209(a)]
- (4) Operation and Maintenance Requirements

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

(5) Annual Time Limit for Maintenance and Testing

As an emergency engine, the unit shall be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, non-emergency 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 unless the conditions in §60.4211(f)(3)(i) are met). [40 CFR §60.4211(f)]

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(6) Initial Notification Requirement
No initial notification is required for emergency engines.
[40 CFR §60.4214(b)]

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#### (7) Recordkeeping

LDA 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 hours spent for emergency operation, including what classified the operation as emergency and how many hours spent for non-emergency. [40 CFR §60.4214(b)]

#### D. Annual Emissions

#### 1. Total Annual Emissions

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

- Firing 600,000 gal/year of distillate fuel with a sulfur content of 0.5% in the boilers:
- Unlimited use of propane in B5100 and B8702;
- Operation of each emergency engine for 100 hr/year.

# Total Licensed Annual Emissions for the Facility Tons/year

(used to calculate the annual license fee)

	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
Boilers (distillate)	3.4	3.4	21.2	6.0	1.5	0.1
B5100 (propane)	0.4	0.4	_	1.1	0.6	0.1
B8702 (propane)	0.6	0.6		1.7	1.0	0.1
G0291				0.2	_	_
G1203		_	_	0.8	0.2	0.1
G5007	_	-	_	0.8	0.2	
G8203				1.0	0.3	_
G8390		_		0.2		_
G8700				0.5	0.1	
G8713			<del></del>	0.6	0.1	
Trailer Generator	_	_	<del>-</del>	0.8	0.2	0.1
WP0291	<del>-</del>		_	0.5	0.1	
Total TPY	4.4	4.4	21.2	14.2	4.3	0.5

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#### 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).

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The quantity of  $CO_2$ e emissions from this facility is less than 100,000 tons per year, based on the following:

- the facility's fuel use limis;
- 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>	Tons/Year
$PM_{10}$	25
$\mathrm{SO}_2$	50
NO <sub>x</sub>	50
CO	250

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

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

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

The Department hereby grants Air Emission License A-649-71-H-R/A subject to the following conditions.

<u>Severability</u>. 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).
- 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]

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(6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]

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- (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

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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

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- 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) **Boilers**

#### A. Fuel

- 1. Total distillate fuel use for LDA's boilers (combined) shall not exceed 600,000 gal/yr, on a calendar year basis. [06-096 CMR 115, BPT]
- 2. Prior to July 1, 2018, the facility shall fire distillate fuel with a maximum sulfur content not to exceed 0.5% by weight. [06-096 CMR 115, BPT/BACT]

3. Beginning July 1, 2018, the facility shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm). [06-096 CMR 115, BPT/BACT]

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4. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, type, and the percent sulfur of the fuel delivered. Records of annual fuel use shall be kept on a monthly and calendar year total basis. [06-096 CMR 115, BPT]

# B. Emissions shall not exceed the following:

<b>Emission Unit</b>	Pollutant	lb/MMBtu	Origin and Authority
B5902-1	PM	0.08	06-096 CMR 115, BPT
B5902-2	PM	0.08	06-096 CMR 115, BPT
B6540	PM	0.08	06-096 CMR 115, BACT
B7500	PM	0.08	06-096 CMR 115, BACT
B8200	PM	0.08	06-096 CMR 115, BACT
B8250-E Floor	PM	0.08	06-096 CMR 115, BPT
B8250-W Floor	PM	0.08	06-096 CMR 115, BPT
B8260	PM	0.08	06-096 CMR 115, BACT
B8390	PM	0.08	06-096 CMR 115, BPT
B8700	PM	0.08	06-096 CMR 115, BACT
B8710	PM	0.08	06-096 CMR 115, BPT
B8713-S	PM	0.08	06-096 CMR 115, BPT
B8713-N	PM	0.08	06-096 CMR 115, BPT

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

<b>Emission Unit</b>	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)
B0291	0.09	0.09	0.55	0.16	0.04	_
B2501-1	0.08	0.08	0.53	0.15	0.04	_
B2501-2	0.08	0.08	0.53	0.15	0.04	
B5001	0.14	0.14	0.89	0.25	0.06	
B5100 (oil)	0.14	0.14	0.89	0.25	0.06	_
B5100 (propane)	0.09	0.09	_	0.25	0.15	0.02
B5302	0.14	0.14	0.89	0.25	0.06	
B5902-1	0.78	0.78	4.88	1.39	0.35	0.02
B5902-2	0.70	0.70	4.38	1.24	0.31	0.02
B5910	0.20	0.20	1.23	0.35	0.09	0.01
B6540	0.25	0.25	1.56	0.44	0.11	0.01
B7500	0.26	0.26	1.62	0.46	0.12	0.01
B7501-1	0.14	0.14	0.89	0.25	0.06	_

<b>Emission Unit</b>	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)
B7501-2	0.10	0.10	0.63	0.18	0.04	<del>-</del>
B8200	0.27	0.27	1.73	0.49	0.12	0.01
B8202	0.12	0.12	0.73	0.21	0.05	
B8250-E Door	0.09	0.09	0.55	0.16	0.04	
B8250-W Door	0.14	0.14	0.86	0.24	0.06	
B8250-E Floor	0.64	0.64	4.03	1.14	0.29	0.02
B8250-W Floor	0.64	0.64	4.03	1.14	0.29	0.02
B8255	0.11	0.11	0.68	0.19	0.05	_
B8260	0.30	0.30	1.87	0.53	0.13	0.01
B8390	0.43	0.43	2.71	0.77	0.19	0.01
B8700	0.25	0.25	1.55	0.44	0.11	0.01
B8702 (oil)	0.22	0.22	1.38	0.39	0.10	0.01
B8702 (propane)	0.14	0.14		0.39	0.23	0.03
B8710	0.27	0.27	1.73	0.49	0.12	0.01
B8712	0.22	0.22	1.39	0.40	0.10	0.01
B8713-N	0.35	0.35	2.22	0.63	0.16	0.01
B8713-S	0.27	0.27	1.73	0.49	0.12	0.01

- D. Visible emissions from the boilers firing distillate fuel shall not exceed 20% opacity on a 6-minute block average basis, except for no more than one (1) six (6) minute block average in a 3-hour period. [06-096 CMR 101]
- E. Visible emissions from the boilers firing propane shall not exceed 10% opacity on a 6-minute block average basis, except for no more than one (1) six (6) minute block average in a 3-hour period. [06-096 CMR 101]

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- F. Boiler MACT (40 CFR Part 63, Subpart JJJJJJ) Requirements [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:

Boiler Category	Tune-Up Frequency
Existing Oil fired boilers that are not designated as "Boilers with less frequent tune up	
requirements" listed below	Every 2 years
New and Existing Oil, Biomass, and Coal fired	
Boilers with less frequent tune up requirements	
Seasonal (see definition §63.11237)	Every 5 years
Limited use (see definition §63.11237)	Every 5 years
With a heat input capacity of ≤5MMBtu/hr	Every 5 years
Boiler with oxygen trim system which maintains	
an optimum air-to-fuel ratio that would	
otherwise be subject to a biennial tune up	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:
  - (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. Delay of the burner inspection until the next scheduled shutdown is permitted for up to 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, <u>as applicable</u>, 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. Delay of the inspection until the next scheduled shutdown is permitted for up to 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)]
- c. <u>Tune-Up Report</u>: 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 tuneup 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)]

#### 2. Compliance Report

A compliance report shall be prepared by March 1<sup>st</sup> biennially or every five years which covers the previous two or five calendar years (as appropriate). 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;

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- d. The following certifications, as applicable:
  - (1) "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."
  - (2) "No secondary materials that are solid waste were combusted in any affected unit."
  - (3) "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)."
- 3. Records shall be maintained consistent with the requirements of 40 CFR Part 63, Subpart JJJJJJ including the following [40 CFR Part 63.11225(c)]:
  - a. Copies of notifications and reports with supporting compliance documentation;
  - b. Identification of each boiler, the date of tune-up, procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned;
  - c. Records of the occurrence and duration of each malfunction of each applicable boiler; and
  - d. Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.

Records shall be in a form suitable and readily available for expeditious review. EPA requires submission of Notification of Compliance Status reports for tuneups and energy assessments through their electronic reporting system. [63.1125(a)(4)(vi)]

#### (17) Emergency Engines

- A. Each of the emergency engines shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 CMR 115, BACT/BPT]
- B. Emergency engines are only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Emergency engines are not to be used for prime power when reliable offsite power is available. [06-096 CMR 115, BACT/BPT]
- C. LDA 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 hours spent for emergency operation, including what classified the operation as emergency and how many hours spent for non-emergency. [06-096 CMR 115, BACT/BPT]

- D. The fuel sulfur content for the emergency engines shall be limited to 0.0015% sulfur by weight. Compliance shall be demonstrated by fuel records from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [06-096 CMR 115, BACT/BPT]
- E. Emissions shall not exceed the following:

<u>Unit</u>	<u>Pollutant</u>	lb/MMBtu	Origin and Authority		
G1203	PM	0.12	06-096 CMR 103(2)(B)(1)(a)		
G5007	PM	0.12	06-096 CMR 103(2)(B)(1)(a)		
G8203	PM	0.12	06-096 CMR 103(2)(B)(1)(a)		
Trailer Generator	PM	0.12	06-096 CMR 103(2)(B)(1)(a)		

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

	PM	PM <sub>10</sub>	$SO_2$	NO <sub>x</sub>	СО	VOC
<u>Unit</u>	<u>(lb/hr)</u>	(lb/hr)	(lb/hr)	<u>(lb/hr)</u>	(lb/hr)	(lb/hr)
G0291	0.11	0.11	. 1	3.88	0.84	0.31
G1203	0.42	0.42	0.01	15.44	3.33	1.23
G5007	0.59	0.59	0.01	15.68	4.17	0.44
G8203	0.72	0.72	0.01	19.20	5.10	0.54
G8390	0.11	0.11		3.88	0.84	0.31
G8700	0.28	0.28	_	10.14	2.19	0.81
G8713	0.30	0.30	1	11.16	2.40	0.89
Trailer Generator	0.42	0.42	0.01	15.44	3.33	1.23
WP0291	0.27	0.27		10.05	2.17	0.80

- G. Visible emissions from each of the distillate fuel-fired emergency engines shall not exceed 20% opacity on a 6-minute block average basis, except for no more than two (2) six (6) minute block averages in a 3-hour period. [06-096 CMR 101]
- H. <u>G5007</u> shall meet the applicable requirements of 40 CFR Part 60, Subpart IIII, including the following:
  - 1. Manufacturer Certification

The engine shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in §60.4202. [40 CFR §60.4205(b)]

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2. Ultra-Low Sulfur Fuel

The fuel fired in the engine shall not exceed 15 ppm sulfur (0.0015% sulfur). Compliance with the fuel sulfur content limit shall be based on fuel records from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [40 CFR §60.4207(b) and 06-096 CMR 115]

3. Non-Resettable Hour Meter

A non-resettable hour meter shall be installed and operated on the engine. [40 CFR §60.4209(a)]

- 4. 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, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, non-emergency 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 CFR §60.4211(f) and 06-096 CMR 115]
  - b. LDA 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 hours spent for emergency operation, including what classified the operation as emergency, and how many hours spent for non-emergency. [40 CFR §60.4214(b)]

#### 5. Operation and Maintenance

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

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

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DONE AND DATED IN AUGUSTA, MAINE THIS

23 DAY OF May

, 2016

DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL MERCER 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: 4/5/13
Date of application acceptance: 4/23/13

Date filed with the Board of Environmental Protection:

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

