

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

#### **DEPARTMENT ORDER**

Waldo County General Hospital Waldo County Belfast, Maine A-1135-71-A-N

Departmental
Findings of Fact and Order
Air Emission License

#### FINDINGS OF FACT

After review of the air emission license application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes (M.R.S.) § 344 and § 590, the Maine Department of Environmental Protection (Department) finds the following facts:

#### I. REGISTRATION

#### A. Introduction

Waldo County General Hospital (WCGH) has applied for an Air Emission License for the operation of emission sources associated with their healthcare facility.

The equipment addressed in this license is located at 118 Northport Avenue, Belfast, Maine.

#### B. Emission Equipment

The following equipment is addressed in this air emission license:

#### **Boilers**

Equipment	Max. Capacity (MMBtu/hr)	Maximum Firing Rate	Fuel Type, % sulfur	Date of Manuf.	Date of Install.	Stack#
		1,859 scf/hr	LPG, neg.			
Boiler #1	4.79	34 gal/hr	Distillate Fuel, 0.0015%	2018	2018	1
		1,859 scf/hr	LPG, neg.			
Boiler #2	4.79	34 gal/hr	Distillate Fuel, 0.0015%	2018	2018	2
		1,859 scf/hr	LPG, neg.			
Boiler #3	4.79	34 gal/hr	Distillate Fuel, 0.0015%	2018	2018	3

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#### **Stationary Engines**

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Equipment	Max. Input Capacity (MMBtu/hr)	Rated Output Capacity (kW)	Fuel Type, <u>%</u> sulfur	Firing Rate (gal/hr)	Date of Manuf.	Date of Install.
Generator #1	5.54	500	Distillate Fuel, 0.0015%	40.4	1999	2000
Generator #2	12.40	1,250	Distillate Fuel, 0.0015%	90.5	2017	2017

#### C. Definitions

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

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

#### D. Application Classification

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

WCGH is classified as an existing source that is applying for its first air emission license, after-the-fact. The Department has determined the facility is a minor source, and the application has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115.

#### E. Facility Classification

With the operating hours restriction on the emergency generators, the facility is licensed as follows:

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

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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 C.M.R. ch. 100. Separate control requirement categories exist for new and existing equipment.

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

#### B. Boilers #1-#3

WCGH has proposed the installation of Boilers #1-#3 for heat. The boilers will each be rated at 4.79 MMBtu/hr, and fire liquefied petroleum gas (LPG) and distillate fuel. The boilers will be installed in 2018. Each boiler will exhaust through its own stack at a height of 20 feet above ground level.

#### 1. BACT Findings

WCGH submitted a BACT analysis for control of emissions from Boilers #1-#3.

a. Particulate Matter (PM, PM<sub>10</sub>), Carbon Monoxide (CO), and Volatile Organic Compounds (VOC)

Emissions of PM/PM<sub>10</sub>, CO, and VOC from new LPG/distillate fuel fired boilers are generally low, and add-on control equipment was determined to not be economically practical. BACT for PM/PM<sub>10</sub>, CO, and VOC emissions from Boilers #1-#3 shall be the use of efficient burner combustion technology and the emission limits listed in the below tables.

#### b. Sulfur Dioxide (SO<sub>2</sub>)

Boilers #1-#3 will primarily fire LPG, with only limited amounts of distillate fuel used. When firing LPG, the SO<sub>2</sub> emissions from Boilers #1-#3 will be negligible due to the very low sulfur content of LPG. BACT for SO<sub>2</sub> emissions from Boilers #1-#3 shall be the use of LPG as their primary fuel, and the use of distillate fuel with a sulfur content not to exceed 0.0015% by weight.

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#### c. Nitrogen Oxides (NO<sub>x</sub>)

NO<sub>x</sub> control techniques are generally organized into two separate categories: combustion controls and post-combustion controls. Post-combustion controls such as Selective Catalytic Reduction (SCR) and Selective Non-Catalytic Reduction (SNCR) have been employed on utility boilers and large industrial watertube boilers. Packaged firetube boilers lack the furnace space and residency time necessary for effective SNCR operation, and therefore SNCR is not technically feasible for the proposed boilers. SCR has been utilized on gas-fired firetube boilers on a very limited basis, but due to the relatively low potential annual NO<sub>x</sub>, SCR is not economically feasible for the proposed boilers.

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Combustion control techniques have been demonstrated as successful at achieving  $NO_x$  reductions. The combustion controls available include the use of low  $NO_x$  burners and good combustion practices. Low  $NO_x$  burners are designed to achieve lower  $NO_x$  by mixing the fuel and combustion air in a way that limits  $NO_x$  formation. This is generally done by mixing the combustion air and fuel in multiple stages, and by utilizing a specially designed nozzle and/or diffuser to achieve a particular flame pattern. Good combustion practices include operating the system based on the design and recommendations provided by the manufacturer and by maintaining proper air-to-fuel ratios with periodic maintenance checks.

BACT for NO<sub>x</sub> emission from Boilers #1-#3 shall be the use of low NO<sub>x</sub> burners, good combustion practices, and the emission limits listed in the below tables.

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

#### **LPG**

PM/PM<sub>10</sub> – 0.05 lb/MMBtu based on 06-096 C.M.R. ch. 115, BACT

SO<sub>2</sub> - 0.0011 lb/MMBtu from vendor data NO<sub>x</sub> - 0.0526 lb/MMBtu from vendor data CO - 0.0191 lb/MMBtu from vendor data VOC - 0.0083 lb/MMBtu from vendor data Visible - 06-096 C.M.R. ch. 115, BACT

**Emissions** 

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### Distillate Fuel

PM/PM<sub>10</sub> - 0.08 lb/MMBtu based on 06-096 C.M.R. ch. 115, BACT SO<sub>2</sub> - based on firing distillate fuel with a maximum sulfur

content of 0.0015% by weight

NO<sub>x</sub> – 0.118 lb/MMBtu from vendor data CO – 0.0080 lb/MMBtu from vendor data VOC – 0.0024 lb/MMBtu from vendor data Visible – 06-096 C.M.R. ch. 115, BACT

**Emissions** 

The BACT emission limits for the boilers are the following:

<u>Unit</u>	Pollutant	<u>Fuel</u>	lb/MMBtu
Boiler #1	PM	LPG	0.05
Bollet #1	LIVI	Distillate	0.08
Boiler #2	PM	LPG	0.05
Bollet #2	LIVI	Distillate	0.08
Boiler #3	PM	LPG	0.05
DOILOI #3	I IVI	Distillate	0.08

Unit	Fuel	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
UIII	ruei	(lb/hr)	(lb/hr)	<u>(lb/hr)</u>	(lb/hr)	(lb/hr)	(lb/hr)
Boiler #1	LPG	0.24	0.24		0.25	0.09	0.04
Doner #1	Distillate	0.38	0.38	0.01	0.57	0.04	0.01
Boiler #2	LPG	0.24	0.24		0.25	0.09	0.04
Boller #2	Distillate	0.38	0.38	0.01	0.57	0.04	0.01
Boiler #3	LPG	0.24	0.24		0.25	0.09	0.04
DOILGI #3	Distillate	0.38	0.38	0.01	0.57	0.04	0.01

When burning LPG, visible emissions from each of the boilers shall not exceed 10% opacity on a six-minute block average basis. When burning distillate fuel, visible emissions from each of the boilers shall not exceed 20% opacity on a six-minute block average basis.

#### Fuel Sulfur Content Requirements

The distillate fuel purchased or otherwise obtained for use in Boilers #1-#3 shall not exceed 0.0015% by weight (15 ppm).

#### 2. Periodic Monitoring

Periodic monitoring for the boilers shall include recordkeeping to document fuel use on a calendar year total (all boilers) basis. Documentation shall include the type of fuel used and sulfur content of the fuel, if applicable.

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

Due to the size, Boilers #1-#3 are not subject to Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units 40 C.F.R. Part 60, Subpart Dc for units greater than 10 MMBtu/hr manufactured after June 9, 1989. [40 C.F.R. § 60.40c]

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

Boilers #1-#3 are subject to the *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, 40 C.F.R. Part 63, Subpart JJJJJJ. These units are considered new boilers rated less than 10 MMBtu/hr. [40 C.F.R. §§ 63.11193 and 63.11195]

Gas-fired boilers are exempt from 40 C.F.R. Part 63, Subpart 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. WCGH intends to use distillate fuel outside of these scenarios, and therefore does not meet the definition of gas-fired boiler. [40 C.F.R. § 63.11237]

A summary of the currently applicable federal 40 C.F.R. Part 63, Subpart JJJJJJ requirements is listed below. Notification forms and additional rule information can be found on the following website: <a href="https://www.epa.gov/stationary-sources-air-pollution/compliance-industrial-commercial-and-institutional-area-source">https://www.epa.gov/stationary-sources-air-pollution/compliance-industrial-commercial-and-institutional-area-source</a>.

- a. Compliance Dates, Notifications, and Work Practice Requirements
  - (1) Initial Notification of Compliance

An Initial Notification submittal to EPA is due within 120 days after the source becomes subject to the standard. [40 C.F.R. § 63.11225(a)(2)]

- (2) Boiler Tune-Up Program
  - (i) A boiler tune-up program shall be implemented. [40 C.F.R. § 63.11223] New sources that have applicable work practice standards or management practices are not required to complete an initial performance tune-up. The first tune-up of Boilers #1-#3 must be completed no later than 61 months after initial startup of the units. [40 C.F.R. § 63.11210(g)] Per EPA, if the regular tune-up is their only requirement, new boilers also do not have to submit a Notice of Compliance Status (NOCS).
  - (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:

	Tune-Up
Boiler Category	Frequency
Oil fired boilers with a heat input capacity of ≤ 5MMBtu/hr	Every 5 years

[40 C.F.R. § 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 for up to 72 months from the previous inspection for oil fired boilers less than or equal to 5 MMBtu/hour, boilers with oxygen trim systems, seasonal boilers, and limited use boilers. [40 C.F.R. § 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 C.F.R. § 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 for up to 72 months from the previous inspection for oil fired boilers less than or equal to 5 MMBtu/hour, boilers with oxygen trim systems, seasonal boilers, and limited use boilers. [40 C.F.R. § 63.11223(b)(3)]
  - 4. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 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 C.F.R. § 63.11223(b)(6)]

#### (3) 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/or to the EPA upon request. The report must include the items contained in §§ 63.11225(b)(1) and (2), including the following: [40 C.F.R. § 63.11225(b)]

- (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 C.F.R. § 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 §§ 63.11214(d) and 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."

#### b. Recordkeeping

Records shall be maintained consistent with the requirements of 40 C.F.R. Part 63, Subpart JJJJJJ including the following [40 C.F.R. § 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.

#### C. Generator #1

WCGH operates an emergency generator designated Generator #1. The emergency generator is a generator set consisting of an engine and an electrical generator. The emergency generator has an engine rated at 5.54 MMBtu/hr which fires distillate fuel. The emergency generator was manufactured in 1999.

#### 1. BACT Findings

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

#### a. Particulate Matter (PM and PM<sub>10</sub>)

Particulate matter emissions from distillate fuel fired engines are generally controlled through proper operation and maintenance. Because Generator #1 is an emergency engine that is limited to 100 hours of non-emergency operation per year, add-on PM control equipment would not provide a significant environmental benefit. BACT for PM and PM<sub>10</sub> emissions from Generator #1 shall be proper operation and maintenance and the emission limits listed in the below tables.

#### b. Sulfur Dioxide (SO<sub>2</sub>)

For emergency engines that fire distillate fuel and operate for only short periods of time, the use of additional SO<sub>2</sub> add-on control methods would not be economically feasible considering the minimal emissions due to the limited use of the engines. The most practical method for limiting SO<sub>2</sub> emissions of such engines is the use of low sulfur fuel, such as distillate fuel with a sulfur content no greater than 0.0015% by weight. BACT for SO<sub>2</sub> emissions from Generator #1

shall be the use of distillate fuel with a sulfur content no greater than 0.0015% by weight, and the emission limits listed in the below tables.

#### c. Nitrogen Oxides (NO<sub>x</sub>)

Selective Catalytic Reduction (SCR) and Selective Non-Catalytic Reduction (SNCR) are NO<sub>x</sub> control technologies that are sometimes used to reduce NO<sub>x</sub> emissions from distillate fuel fired engines. Because Generator #1 is an emergency engine that is limited to 100 hours of non-emergency operation per year, the use of SCR or SNCR would not be economically feasible. BACT for NO<sub>x</sub> emissions from Generator #1 shall be proper operation and maintenance, and the emission limits listed in the below tables.

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

CO and VOC emissions from distillate fired generators are generally controlled through proper operation and maintenance. Oxidation catalysts have been used on large prime power applications to reduce CO and VOC emissions, but use on limited use emergency generator would not be economically feasible. BACT for CO and VOC emissions from Generator #1 shall be proper operation and maintenance, and the emission limits listed in the below tables.

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

PM/PM<sub>10</sub> - 0.12 lb/MMBtu from 06-096 C.M.R. ch. 103

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

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

NO<sub>x</sub> - 2.66 lb/MMBtu from manufacturer's data CO - 0.10 lb/MMBtu from manufacturer's data VOC - 0.01 lb/MMBtu from manufacturer's data

Visible - 06-096 C.M.R. ch. 115, BACT

**Emissions** 

#### The BACT emission limits for the generators are the following:

<u>Unit</u>	Pollutant	lb/MMBtu
Generator #1	PM	0.12

<u>Unit</u>	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)
Generator #1 (5.54 MMBtu/hr) Distillate fuel	0.66	0.66	0.01	14.75	0.55	0.06

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

Generator #1 shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. There is no limit on emergency operation. Generator #1 shall be equipped with a non-resettable hour-meter to record operating time. To demonstrate compliance with the operating hours limit, WCGH shall keep records of the total hours of operation and the hours of emergency operation for the unit.

Emergency generators 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 generators are not to be used for prime power when reliable offsite power is available; nor to operate or to be contractually obligated to be available in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity.

#### 2. New Source Performance Standards (NSPS)

Due to the date of manufacture of Generator #1, the engine is not subject to the New Source Performance Standards (NSPS) Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE), 40 C.F.R. Part 60, Subpart IIII since the unit was manufactured prior to April 1, 2006. [40 C.F.R. § 60.4200]

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

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 C.F.R. Part 63, Subpart ZZZZ is not applicable to Generator #1. The unit is considered an existing, emergency stationary reciprocating internal combustion engine at an area HAP source. However, it is considered exempt from the requirements of 40 C.F.R. Part 63, Subpart ZZZZ since it is categorized as a residential, commercial, or institutional emergency engine and it does not operate or is not contractually obligated to be available in a demand response program, during a period of deviation from standard voltage or frequency, or for supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in 40 C.F.R. § 63.6640(f)(4)(ii).

Operation of any emergency engine in a demand response program, during a period of deviation from standard voltage or frequency, or for supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in 40 C.F.R. § 63.6640(f)(4)(ii), would cause the engine to be subject to 40 C.F.R. Part 63, Subpart ZZZZ and require compliance with all applicable requirements.

#### D. Generator #2

WCGH operates an emergency generator designated Generator #2. The emergency generator is a generator set consisting of an engine and an electrical generator. The emergency generator has an engine rated at 12.4 MMBtu/hr which fires distillate fuel. The emergency generator was manufactured in 2017.

#### 1. BACT Findings

WCGH submitted a BACT analysis for control of emissions from Generator #2.

#### a. Particulate Matter (PM and PM<sub>10</sub>)

Particulate matter emissions from distillate fuel fired engines are generally controlled through proper operation and maintenance. Additionally, this engine will be subject to 40 C.F.R. Part 60, Subpart IIII, which means it will be required to meet EPA emission standards for emergency stationary engines as discussed below. Given the operating hours restrictions included in 40 C.F.R. Part 60, Subpart IIII, the use of add-on controls for particulate matter is not economically feasible. BACT for PM and PM<sub>10</sub> emissions from Generator #2 shall be proper operation and maintenance, an EPA certified emergency stationary engine as required in 40 C.F.R. § 60.4205(b), and the emission limits listed in the below tables.

#### b. Sulfur Dioxide (SO<sub>2</sub>)

For emergency engines that fire distillate fuel and operate for only short periods of time, the use of additional SO<sub>2</sub> add-on control methods would not be economically feasible considering the minimal emissions due to the limited use of the engines. The most practical method for limiting SO<sub>2</sub> emissions of such engines is the use of low sulfur fuel, such as distillate fuel with a sulfur content no greater than 0.0015% by weight. BACT for SO<sub>2</sub> emissions from Generator #2 shall be the use of distillate fuel with a sulfur content no greater than 0.0015% by weight, and the emission limits listed in the below tables.

#### c. Nitrogen Oxides (NO<sub>x</sub>)

Selective Catalytic Reduction (SCR) and Selective Non-Catalytic Reduction (SNCR) are  $NO_x$  control technologies that are sometimes used to reduce  $NO_x$  emissions from distillate fuel fired engines. Because Generator #2 is an emergency engine that is limited to 100 hours of non-emergency operation per year, the use of SCR or SNCR would not be economically feasible. BACT for  $NO_x$  emissions from Generator #2 shall be proper operation and maintenance, an EPA certified emergency stationary engine as required in 40 C.F.R. § 60.4205(b), and the emission limits listed in the below tables.

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

CO and VOC emissions from distillate fired generators are generally controlled through proper operation and maintenance. Oxidation catalysts have been used on large prime power applications to reduce CO and VOC emissions, but use on limited use emergency generator would not be economically feasible. BACT for CO and VOC emissions from Generator #2 shall be proper operation and maintenance, an EPA certified emergency stationary engine as required in 40 C.F.R. § 60.4205(b), and the emission limits listed in the below tables.

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

PM/PM<sub>10</sub> - 0.12 lb/MMBtu from 06-096 C.M.R. ch. 103

- 0.15 g/bhp-hr from 40 C.F.R. Part 60, Subpart IIII

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> - 4.80 g/bhp-hr from 40 C.F.R. Part 60, Subpart IIII CO - 2.60 g/bhp-hr from 40 C.F.R. Part 60, Subpart IIII

VOC - 0.50 g/bhp-hr from vendor data Visible - 06-096 C.M.R. ch. 115, BACT

**Emissions** 

The BACT emission limits for Generator #2 are the following:

<u>Unit</u>	Pollutant	lb/MMBtu
Generator #2	PM	0.12

<u>Unit</u>	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)
Generator #2 (12.4 MMBtu/hr) Distillate fuel	0.73	0.73	0.02	23.49	12.73	2.45

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

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

Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 C.F.R. Part 60, Subpart IIII is applicable to Generator #2 since the unit was ordered after July 11, 2005, and manufactured after April 1, 2006. [40 C.F.R. § 60.4200] By meeting the requirements of 40 C.F.R. Part 60, Subpart IIII, the unit also meets the requirements found in the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 C.F.R. Part 63, Subpart ZZZZ. [40 C.F.R. § 63.6590(c)]

A summary of the currently applicable federal 40 C.F.R. Part 60, Subpart IIII requirements is listed below.

a. Emergency Engine Designation and Operating Criteria

Under 40 C.F.R. Part 60, Subpart IIII, a stationary reciprocating internal combustion engine (ICE) is considered an **emergency** stationary ICE (emergency engine) as long as the engine is operated in accordance with the following criteria. Operation of an engine outside of the criteria specified below may cause the engine to no longer be considered an emergency engine under 40 C.F.R. Part 60, Subpart IIII, resulting in the engine being subject to requirements applicable to **non-emergency** engines.

(1) Emergency Situation Operation (On-Site)

There is no operating time limit on the use of an emergency engine to provide electrical power or mechanical work during an emergency situation. Examples of use of an emergency engine during emergency situations include the following:

- Use of an engine to produce power for critical networks or equipment (including power supplied to portions of a facility) because of failure or interruption of electric power from the local utility (or the normal power source, if the facility runs on its own power production);
- Use of an engine to mitigate an on-site disaster or equipment failure;
- Use of an engine to pump water in the case of fire, flood, natural disaster, or severe weather conditions; and
- Similar instances.

#### (2) Non-Emergency Situation Operation

An emergency engine may be operated up to a maximum of 100 hours per calendar year for maintenance checks, readiness testing, and other non-emergency situations as described below.

(i) An emergency engine may be operated for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government; the manufacturer; the vendor; the regional transmission organization or equivalent balancing authority and transmission operator; or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE more than 100 hours per calendar year.

(ii) An emergency engine may be operated for up to 50 hours per calendar year for other non-emergency situations. However, these operating hours are counted as part of the 100 hours per calendar year operating limit described in paragraph (2) and (2) (i) above.

The 50 hours per calendar year operating limit for other non-emergency situations cannot be used for peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[40 C.F.R. §§ 60.4211(f) and 60.4219]

- b. 40 C.F.R. Part 60, Subpart IIII Requirements
  - (1) Manufacturer Certification Requirement
    Generator #2 shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in 40 C.F.R. § 60.4202. [40 C.F.R. § 60.4205(b)]
  - (2) Ultra-Low Sulfur Fuel Requirement
    The fuel fired in Generator #2 shall not exceed 15 ppm sulfur (0.0015% sulfur), except that any existing fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted.

    [40 C.F.R. § 60.4207(b)]
  - (3) Non-Resettable Hour Meter Requirement
    A non-resettable hour meter shall be installed and operated on Generator #2.
    [40 C.F.R. § 60.4209(a)]
  - (4) Operation and Maintenance Requirements
    Generator #2 shall be operated and maintained according to the
    manufacturer's emission-related written instructions or procedures developed
    by WCGH that are approved by the engine manufacturer. WCGH may only
    change those emission-related settings that are permitted by the manufacturer.
    [40 C.F.R. § 60.4211(a)]
  - (5) Annual Time Limit for Maintenance and Testing
    As an emergency engine, Generator #2 shall be limited to 100 hours/year for
    maintenance checks and readiness testing. Up to 50 hours/year of the
    100 hours/year may be used in non-emergency situations (this does not
    include peak shaving, demand response, or to generate income for a facility by
    providing power to an electric grid or otherwise supply power as part of a
    financial arrangement with another entity). [40 C.F.R. § 60.4211(f)]

(6) Initial Notification Requirement
No initial notification is required under 40 C.F.R. Part 60, Subpart IIII for
emergency engines. [40 C.F.R. § 60.4214(b)]

#### (7) Recordkeeping

WCGH shall keep records that include maintenance conducted on Generator #2 and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the number of hours the unit operated for emergency purposes, the number of hours the unit operated for non-emergency purposes, and the reason the engine was in operation during each time. [40 C.F.R. § 60.4214(b)]

#### E. Annual Emissions

#### 1. Total Annual Emissions

WCGH shall be restricted to the following annual emissions, based on a calendar year total. The tons per year limits were calculated based on 8,760 hours/year of operation for each of the boilers and the higher emission factor for either distillate fuel or LPG, and 100 hours/year of operation for each of the generators:

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>	<u>CO</u>	VOC
Boilers	5.0	5.0	0.1	7.4	1.2	0.6
Generator #1	0.1	0.1	0.1	0.8	0.1	0.1
Generator #2	0.1	0.1	0.1	1.2	0.7	0.2
Total TPY	5.2	5.2	0.3	9.4	2.0	0.9

Pollutant	Tons/year
Single HAP	9.9
Total HAP	24.9

#### 2. Greenhouse Gases

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

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## Departmental Findings of Fact and Order Air Emission License

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

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

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

#### III. AMBIENT AIR QUALITY ANALYSIS

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

Pollutant	Tons/Year
PM <sub>10</sub>	25
$SO_2$	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.

#### **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-1135-71-A-N subject to the following conditions.

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

#### STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S. § 347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 C.M.R. ch. 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 C.M.R. ch. 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 C.M.R. ch. 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S. § 353-A. [06-096 C.M.R. ch. 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 C.M.R. ch. 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 C.M.R. ch. 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 C.M.R. ch. 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license.

  [06-096 C.M.R. ch. 115]

- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license.

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

C. The licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[06-096 C.M.R. ch. 115]

- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 C.M.R. ch. 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 C.M.R. ch. 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status.

  [06-096 C.M.R. ch. 115]

#### **SPECIFIC CONDITIONS**

#### (16) **Boilers #1-#3**

#### A. Fuel

- 1. WCGH shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm). [06-096 C.M.R. ch. 115, BACT]
- 2. 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 calendar year total (all boilers) basis. [06-096 C.M.R. ch. 115, BACT]

B. Emissions shall not exceed the following:

<b>Emission Unit</b>	Pollutant	<u>Fuel</u>	lb/MMBtu	Origin and Authority
Boiler #1	PM	LPG	0.05	06-096 C.M.R. ch. 115,
		Distillate	0.08	BACT
Boiler #2	PM	LPG	0.05	06-096 C.M.R. ch. 115,
		Distillate	0.08	BACT
Boiler #3	PM	LPG	0.05	06-096 C.M.R. ch. 115,
		Distillate	0.08	BACT

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

Emission Unit	Fuel	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 #1	LPG	0.24	0.24		0.25	0.09	0.04
	Distillate	0.38	0.38	0.01	0.57	0.04	0.01
Boiler #2	LPG	0.24	0.24		0.25	0.09	0.04
	Distillate	0.38	0.38	0.01	0.57	0.04	0.01
Boiler #3	LPG	0.24	0.24		0.25	0.09	0.04
	Distillate	0.38	0.38	0.01	0.57	0.04	0.01

- D. Visible emissions from any boiler firing distillate fuel shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]
- E. Visible emissions from any boiler firing LPG shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]
- F. WCGH shall comply with all requirements of 40 C.F.R. Part 63, Subpart JJJJJJ applicable to Boilers #1-#3 including, but not limited to, the following: [incorporated under 06-096 C.M.R. ch. 115, BACT]
  - 1. An Initial Notification submittal to EPA is due within 120 days after the source becomes subject to the standard. [40 C.F.R. § 63.11225(a)(2)]
  - 2. The facility shall implement a boiler tune-up program. [40 C.F.R. § 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:

Tune-Up
<u>Frequency</u>
Every 5 years

[40 C.F.R. § 63.11223(a) and Table 2]

- b. The first tune-up of Boilers #1-#3 shall be completed no later than 61 months after initial startup of the units. [40 C.F.R. § 63.11210(g)]
- 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 for up to 72 months from the previous inspection for oil fired boilers less than or equal to 5 MMBtu/hour, boilers with oxygen trim systems, seasonal boilers, and limited use boilers. [40 C.F.R. § 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 C.F..R § 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 for up to 72 months from the previous inspection for oil fired boilers less than or equal to 5 MMBtu/hour, boilers with oxygen trim systems, seasonal boilers, and limited use boilers. [40 C.F.R. § 63.11223(b)(3)]
  - (4) Optimize total emissions of CO, consistent with manufacturer's specifications. [40 C.F.R. § 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 C.F.R. § 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 C.F.R. § 63.11223(b)(7)]
- d. <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 C.F.R. § 63.11223(b)(6)]

#### 3. 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/or to the EPA upon request. The report must include the items contained in §§ 63.11225(b)(1) and (2), including the following: [40 C.F.R. § 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:
  - (1) "This facility complies with the requirements in 40 C.F.R. § 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 §§ 63.11214(d) and 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."
- 4. Records shall be maintained consistent with the requirements of 40 C.F.R. Part 63, Subpart JJJJJJ including the following [40 C.F.R. § 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.

#### (17) Generator #1

A. Generator #1 shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 C.M.R. ch. 115, BACT]

- B. WCGH shall keep records that include maintenance conducted on Generator #1 and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the number of hours the unit operated for emergency purposes, the number of hours the unit operated for non-emergency purposes, and the reason the engine was in operation during each time. [06-096 C.M.R. ch. 115, BACT]
- C. The fuel sulfur content for Generator #1 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 C.M.R. ch. 115, BACT]
- D. Emissions shall not exceed the following:

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

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

<u>Unit</u>	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)
Generator #1 (5.54 MMBtu/hr) distillate fuel	0.66	0.66	0.01	14.75	0.55	0.06

#### F. Visible Emissions

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

G. Emergency generators and/or fire pumps 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 generators and/or fire pumps are not to be used for prime power when reliable offsite power is available; nor to operate or to be contractually obligated to be available in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity.

#### **(18) Generator #2**

A. Generator #2 shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 C.M.R. ch. 115, BACT]

B. Emissions shall not exceed the following:

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

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

<u>Unit</u>	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)
Generator #2 (12.4 MMBtu/hr) distillate fuel	0.73	0.73	0.02	23.49	12.73	2.45

#### D. Visible Emissions

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

- E. Generator #2 shall meet the applicable requirements of 40 C.F.R. Part 60, Subpart IIII, including the following: [incorporated under 06-096 C.M.R. ch. 115, BACT]
  - 1. Manufacturer Certification
    Generator #2 shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in § 60.4202.

    [40 C.F.R. § 60.4205(b)]
  - 2. Ultra-Low Sulfur Fuel
    The fuel fired in Generator #2 shall not exceed 15 ppm sulfur (0.0015% sulfur),
    except that any existing fuel purchased (or otherwise obtained) prior to
    October 1, 2010, may be used until depleted. Compliance with the fuel sulfur
    content limit shall be based on fuel records from the supplier documenting the
    type of fuel delivered and the sulfur content of the fuel. [40 C.F.R. § 60.4207(b)
    and 06-096 C.M.R. ch. 115]
  - 3. Non-Resettable Hour Meter
    A non-resettable hour meter shall be installed and operated on Generator #2.

    [40 C.F.R. § 60.4209(a)]

#### 4. Annual Time Limit for Maintenance and Testing

- a. As an emergency engine, Generator #2 shall be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). These limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written log) of all engine operating hours. [40 C.F.R. § 60.4211(f) and 06-096 C.M.R. ch. 115]
- b. WCGH shall keep records that include maintenance conducted on Generator #2 and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the number of hours the unit operated for emergency purposes, the number of hours the unit operated for non-emergency purposes, and the reason the engine was in operation during each time. [40 C.F.R. § 60.4214(b)]

#### 5. Operation and Maintenance

Generator #2 shall be operated and maintained according to the manufacturer's emission-related written instructions or procedures developed by WCGH that are approved by the engine manufacturer. WCGH may only change those emission-related settings that are permitted by the manufacturer. [40 C.F.R. § 60.4211(a)]

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(19) WCGH 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. § 605).

DONE AND DATED IN AUGUSTA, MAINE THIS

31 DAY OF July

, 2018.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: PAUL MERCER COMMISSIONE

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

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

#### PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: <u>June 12, 2018</u>
Date of application acceptance: <u>June 13, 2018</u>

Date filed with the Board of Environmental Protection:

This Order prepared by Benjamin Goundie, Bureau of Air Quality.

