

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

### DEPARTMENT ORDER

Portsmouth Naval Shipyard York County Kittery, Maine A-452-70-E-A

Departmental
Findings of Fact and Order
Part 70 Air Emission License
Amendment #1

### FINDINGS OF FACT

After review of the Part 70 License amendment 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

FACILITY	Portsmouth Naval Shipyard (PNS)
LICENSE TYPE	Part 70 Significant License Modification
NAICS CODES	336611 (Ship Building and Repairing)
NATURE OF BUSINESS	National Security (Submarine repair for U.S. Navy)
FACILITY LOCATION	Kittery, Maine

Portsmouth Naval Shipyard (PNS, the Shipyard) is a repair, retrofit, and general maintenance facility for the U.S. Navy's submarines. Activities at the Shipyard are overseen by the Naval Sea Systems Command, based in Washington, D.C. Submarines brought to PNS for maintenance are moored at one of 14 berths and/or one of three dry dock facilities, depending on the nature and extent of repairs and maintenance to be performed.

The facility is an existing stationary source currently operating under the Part 70 license A-452-70-D-R/A issued July 23, 2015, and licenses to construct issued under the New Source Review Program as found in *Minor and Major Source Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 115.

### Departmental Findings of Fact and Order Part 70 Air Emission License Amendment #1

2

PNS has requested an amendment to the facility's Part 70 license to incorporate the terms and conditions of New Source Review (NSR) license A-452-77-8-A issued November 19, 2015. This NSR license was issued for the addition of two new 2.0 MMBtu/hr natural gas boilers to replace existing units in Building 373 and two 1.5 MW Caterpillar emergency generators to provide backup power. The Department is also using this amendment as an opportunity to clarify the distillate fuel sulfur content requirements for Turbine Generator #2 and HRSG #2, to update the boiler and Turbine Generator #2/HRSG #2 distillate fuel sulfur content requirements to reflect the most recent version of 38 M.R.S. § 603-A(2)(A)(3), and to clarify the requirements of Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, 40 C.F.R. Part 60, Subpart Dc, pertaining to Boilers #1 and #2 and Heat Recovery Steam Generator (HRSG) #2.

### **B.** Emission Equipment

The following emission units are addressed by this Part 70 License Amendment:

### **Boilers and Turbines**

<u>Equipment</u>	Maximum Heat Input Capacity (MMBtu/hr)	Max. Firing Rate	Fuel Type, % Sulfur	Manuf. Date	Install.  Date	Stack #	
Boiler #373-1	2 O Facalal	1,951 scf/hr [each]	Notinal Con most	2015	2015	G11	
Boiler #373-3	2.0 [each]	1,931 sci/nr [each]	Natural Gas, negl.	2015	2015	G13	
Boiler #1*	97 0 Facalal	84,466 scf/hr [each]	Natural Gas, negl.	2003	2003	Boilers #1 & #2	
Boiler #2*	87.0 [each]	621 gal/hr [each]	Distillate Fuel, 0.05%	2003	2003	Bollers #1 & #2	
Turbine Generator #2*	67.8	65,825 scf/hr	Natural Gas, negl.	2003	2003	HRSG #2	
(5.5 MW)	(turbine)	484.3 gal/hr	Distillate Fuel, 0.05%	2003	2003	HKSU #2	
HRSG #2*	45.3	45,825 scf/hr	Natural Gas, negl.	2003	2003	HRSG #2	
TROU #2*	(duct burner)	337.1 gal/hr	Distillate Fuel, 0.05%	2003	2003	TIKSU #2	

<sup>\*</sup>Included for clarification of 40 C.F.R. Part 60, Subpart Dc and distillate fuel sulfur content requirements.

When Air Emission License A-452-70-D-R/A (July 23, 2015) was issued, an original third boiler, Boiler #373-3, was non-operational, and it was going to be scrapped and replaced. Therefore, only Boilers #373-1 and #373-2 were included in that license. Boiler #373-1, currently listed on Air Emission License A-452-70-D-R/A (July 23, 2015) has been replaced by Boiler #373-1 listed above, and is hereby removed from the facility's air emission license. Boiler #373-3, listed above, replaces the original, non-operational Boiler #373-3.

### Departmental Findings of Fact and Order Part 70 Air Emission License Amendment #1

### **Emergency Generators**

3

<b>Equipment</b>	Maximum Heat Input Capacity (MMBtu/hr)	Max. Firing Rate (gal/hr)	Power Output (kW)	Fuel Type, % sulfur	Manuf.	Install. Date
Emergency Generator (G26)	14.4 [each]	104 & [each]	1,500 [each]	Distillate fuel, 0.0015%	2015	2015
Emergency Generator (G27)	14.4 [Cacii]	104.6 [each]	1,500 [each]	Distillate fuel, 0.0015%	2015	2015

### C. Definitions

<u>Distillate Fuel</u>. For the purposes of this license, distillate fuel means the following:

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

### D. Application Classification

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

The application for PNS does not include the licensing of increased emissions; however, the inclusion of NSR requirements from NSR #8 is not considered a Part 70 minor modification or Part 70 administrative revision. Therefore, the license application is considered to be a Part 70 Significant License Modification processed under *Part 70 Air Emission License Regulations*, 06-096 C.M.R. ch. 140.

### II. AMENDMENT DESCRIPTION

### A. NSR License Description

### NSR License A-452-77-8-A

The Department issued NSR License A-452-77-8-A to PNS on November 19, 2015. The license was issued to install four new pieces of equipment at the facility: two new 2.0 MMBtu/hr boilers to replace existing units in Building 373 and two new 1.5 MW Caterpillar emergency generators to provide emergency

# Departmental Findings of Fact and Order Part 70 Air Emission License Amendment #1

backup power at the facility. The license was issued pursuant to federal NSR Prevention of Significant Deterioration (PSD) requirements and the Department's air licensing requirements for minor modifications at major stationary sources.

### **B.** Best Practical Treatment (BPT)

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.

BACT for these new units was documented in NSR License A-452-77-8-A (November 19, 2015). The BACT requirements are included in this license.

### C. Boilers #1 and #2 Visible Emission Requirement Revision

Air Emission License A-452-70-D-R/A (July 23, 2015) originally included the following language as part of the visible emissions requirement for Boilers #1 and #2:

Based on the type of fuel for which the boilers will be designed and when operating in a manner consistent with good air pollution control practices, it is unlikely the boilers will exceed the opacity limits. Therefore, initial and periodic monitoring by the source for opacity in the form of visible emission testing in accordance with 40 C.F.R. Part 60, Appendix A, Method 9 is not required at this time.

This language is in regards to the visible emission testing requirements in 40 C.F.R. Part 60, Subpart Dc. Although the language above was correct at one time, the most recent interpretation of these requirements as confirmed with EPA is that this is no longer accurate and that any boiler licensed to fire distillate fuel is subject to the initial compliance and monitoring requirements in 40 C.F.R. Part 60, Subpart Dc related to visible emissions; therefore, the language above pertaining to Boilers #1 and #2 is being removed as part of this licensing action.

### D. Turbine Generator #2 and HRSG #2 Fuel Sulfur Content Clarification

Air Emission License A-452-70-D-R/A (July 23, 2015) stated that PNS was licensed to operate Turbine Generator #2 and HRSG #2 as natural-gas fired units

## Departmental Findings of Fact and Order Part 70 Air Emission License Amendment #1

and to use distillate fuel as an alternative fuel. This license did not, however, clarify the maximum sulfur content of the distillate fuel to be fired in Turbine Generator #2 and HRSG #2.

5

In Air Emission License Amendment A-452-70-B-A (April 16, 2003), Condition (22) specified that the distillate fuel used at the facility would have a maximum sulfur content of no more than 0.05% by weight. This requirement was also included in Condition (18) of Air Emission License A-452-70-C-R (January 25, 2006). In Air Emission License A-452-70-D-R/A, however, this requirement was placed with each piece of equipment instead of with the facility-wide fuel limit and was inadvertently omitted from the section addressing Turbine Generator #2 and HRSG #2.

Based on the above information, Condition (16)(A.) of Air Emission License A-452-70-D-R/A shall be amendment to limit the distillate fuel fired in Turbine Generator #2 and HRSG #2 to a maximum sulfur content of 0.05% by weight until July 1, 2018, at which point the facility shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm) for use in Turbine Generator #2 and HRSG #2 in congruence with 38 M.R.S. § 603-A(2)(A)(3). [06-096 C.M.R. ch. 140, BPT]

### E. Boiler #1 and #2 and HRSG #2 40 C.F.R. Part 60, Subpart Dc Clarification

The requirements of New Source Performance Standards (NSPS) 40 C.F.R. Part 60, Subpart Dc, specific to Boilers #1 and #2 and HRSG #2 were originally included in Air Emission License Renewal A-452-70-D-R/A (July 23, 2015). The Department has determined that some of the 40 C.F.R. Part 60, Subpart Dc requirements included in that license need further delineation. The clarified requirements are included below.

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

### 1. Notifications

PNS shall submit notification to EPA and the Department of the date of construction, anticipated start-up, and actual start-up for Boilers #1 and #2 and HRSG #2. This notification shall include the design heat input capacity of the boiler and the type of fuel to be combusted. PNS has submitted this Notification to EPA. [40 C.F.R. § 60.48c(a)]

### Departmental Findings of Fact and Order Part 70 Air Emission License Amendment #1

### 2. Standards

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

The distillate fuel fired in Boilers #1 and #2 and HRSG #2 shall not exceed 0.5% sulfur by weight. [40 C.F.R. § 60.42c(d)] This requirement has been streamlined to the distillate fuel sulfur content limits included in Conditions (14)(B.)(2.) and (16)(A.)(2.) of this air emission license amendment.

6

### b. Opacity

When firing distillate fuel, visible emissions from Boilers #1 and #2 and HRSG #2 shall each not exceed 20% opacity on a six-minute block average, except for one six-minute block average per hour of not more than 27% opacity. [40 C.F.R. § 60.43c(c)]

### 3. Initial Compliance Requirements

PNS shall perform the following within 30 days after achieving the maximum production rate at which the boiler will be operated but not later than 180 days after the initial start-up of the boiler:

- a. Submit to EPA and the Department copies of the fuel supplier certification of the sulfur content of the distillate fuel fired in Boilers #1 and #2 and HRSG #2. The fuel supplier certification must contain the name of the fuel oil supplier, a statement from the oil supplier that the oil complies with ASTM specifications for distillate oil, and the maximum sulfur content of the oil. PNS has already submitted this certification. [40 C.F.R. §§ 60.42(h), 60.44c(h) and 60.45c(d)]
- b. PNS shall conduct an initial performance test for opacity using 40 C.F.R. Part 60, Appendix A, Method 9 in accordance with 40 C.F.R. § 60.45c(a). [40 C.F.R. § 60.45c(a)(8)]

### 4. Monitoring Requirements

a. Except as provided in paragraph c. below, PNS shall conduct performance tests on Boilers #1 and #2 and HRSG #2 for opacity using 40 C.F.R. Part 60, Appendix A, Method 9 according to the following schedule [40 C.F.R. § 60.47c(a)]:

# Departmental Findings of Fact and Order Part 70 Air Emission License Amendment #1

(1) If no visible emissions were observed in the most recent Method 9 performance test, the next performance test shall be completed within 12 calendar months or within 45 days of firing distillate fuel in the boiler, whichever is later;

7

- (2) If visible emissions were observed in the most recent Method 9 performance test, and the maximum 6-minute block average was less than or equal to 5% opacity, the next performance test shall be completed within 6 calendar months or within 45 days of firing distillate fuel in the boiler, whichever is later;
- (3) If visible emissions were observed in the most recent Method 9 performance test, and the maximum 6-minute block average was greater than 5% but less than or equal to 10% opacity, the next performance test shall be completed within 3 calendar months or within 45 days of firing distillate fuel in the boiler, whichever is later; and
- (4) If visible emissions were observed in the most recent Method 9 performance test, and the maximum 6-minute block average was greater than 10% opacity, the next performance test shall be completed within 45 days.
- b. The observation period for the Method 9 performance test may be reduced from three hours to 60 minutes if all six-minute block averages are less than 10% opacity and all individual 15-second observations are less than or equal to 20% opacity during the initial 60 minutes of observation. [40 C.F.R. § 60.47c(a)]
- c. If the visible emissions observed in the most recent Method 9 performance test were less than 10% opacity, PNS may elect to perform subsequent performance test using 40 C.F.R. Part 60, Appendix A, Method 22 as follows [40 C.F.R. § 60.47c(a)(2)]:
  - (1) PNS shall conduct 10-minute observations each operating day Boilers #1 and #2 and HRSG #2 fire distillate fuel using Method 22;
  - (2) If no visible emissions are observed for 10 operating days, PNS may reduce observations to once every 7 operating days. If any visible emissions are observed, daily observations shall be resumed;
  - (3) If the sum of the occurrence of any visible emissions is greater than 30 seconds per 10-minute observation, PNS shall immediately conduct a 30-minute observation; and
  - (4) If the sum of the occurrence of any visible emissions is greater than 90 seconds per 30-minute observation, PNS shall either document the adjustments made to Boilers #1 and #2 and HRSG #2 and demonstrate within 24 hours that the sum of the occurrence of any visible emissions is not greater than 90 seconds per 30-minute observation or conduct a Method 9 performance test within 45 days.

### 5. Reporting and Recordkeeping

a. PNS shall maintain records of the amounts of each fuel combusted during each calendar month with fuel certifications. [40 C.F.R. § 60.48c(g)]

8

- b. PNS shall submit performance test data from all performance tests required under this subpart to both the Department and EPA. [40 C.F.R. § 60.48c(b)]
- c. For each opacity performance test performed, PNS shall maintain records of the following [40 C.F.R. § 60.48c(c)]:
  - (1) Date and time intervals of all opacity or visible emissions observation periods;
  - (2) Name and affiliation for each visible emission observer participating in the performance test. For Method 9 performance tests, include a copy of the current visible emission reading certification for each visible emission observer;
  - (3) Copies of all visible emission observer opacity field data sheets; and
  - (4) Documentation of any adjustments made and the time the adjustments were completed to demonstrate compliance with the applicable monitoring requirements (Method 22 observations only).
- d. PNS shall submit semi-annual reports to EPA and to the Department. [40 C.F.R. § 60.48c(d)] These reports shall include the following:
  - (1) Calendar dates covered in the reporting period; [40 C.F.R. § 60.48c(e)(1)]
  - (2) Records of fuel supplier certifications; [40 C.F.R. § 60.48c(e)(11)] and
  - (3) Any instances of excess emissions (including opacity) from Boilers #1 and #2 and HRSG #2 required by 40 C.F.R. § 60.48c(c). [40 C.F.R. § 60.48c(c)]
- e. The semi-annual reports are due within 30 days of the end of each six-month period. [40 C.F.R. § 60.48c(j)]
- f. All records required under this section shall be maintained by PNS for a period of two years following the date of such record. [40 C.F.R. § 60.48c(i)]

### Departmental Findings of Fact and Order Part 70 Air Emission License Amendment #1

g. The following address for EPA shall be used for any reports or notifications required to be copied to them:

9

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

### F. Boilers #373-1 and #373-3

PNS operates Boilers #373-1 and #373-3 as low pressure water heating boilers in Building 373. Both units were manufactured and installed in 2015. Each unit has a heat input capacity of 2.0 MMBtu/hr and combusts natural gas. Boilers #373-1 and #373-3 will each exhaust through separate 11-foot stacks, Stacks G11 and G13.

### 1. BACT and Emission Standards

The BACT analysis documented in NSR license A-452-77-8-A (November 19, 2015) identified the following emission factors as the basis for the BACT emission limits for Boilers #373-1 and #373-3:

PM/PM <sub>10</sub> /PM <sub>2.5</sub>	_	0.05 lb/MMBtu based on 06-096 C.M.R. 115, BACT
$SO_2$	-	0.6 lb/MMscf based on AP-42, Table 1.4-2, dated 7/98
NO <sub>x</sub>	_	100 lb/MMscf based on AP-42, Table 1.4-1, dated 7/98
CO	_	84 lb/MMscf based on AP-42, Table 1.4-1, dated 7/98
VOC	-	5.5 lb/MMscf based on AP-42, Table 1.4-2, dated 7/98
Visible Emissions	-	06-096 C.M.R. ch. 140, BPT

The BACT emission limits for Boilers #373-1 and #373-3 are the following:

Unit	PM (lb/hr)	PM <sub>10</sub> (lb/hr)	SO <sub>2</sub> (lb/hr)	NO <sub>x</sub> (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #373-1	0.13	0.13	0.01	0.24	0.16	0.01
Boiler #373-3	0.13	0.13	0.01	0.24	0.16	0.01

Visible emissions from each boiler (Boiler #373-1 and Boiler #373-3) shall not exceed 10% opacity on a six-minute block average basis.

Compliance with the above limits shall be demonstrated by emissions testing as requested by the Department.

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

Due to their size, Boilers #373-1 and #373-3 are not subject to the New Source Performance Standards (NSPS) titled Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, 40 C.F.R. Part 60, Subpart Dc. These standards apply to steam generating units with a heat input capacity of 10 MMBtu/hr or more that are constructed after June 9, 1989. [40 C.F.R. § 60.40c(a)]

### 3. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

10

Boilers #373-1 and #373-3 are not subject to *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, 40 C.F.R. Part 63, Subpart JJJJJJ. The units are gas-fired units, which are considered exempt from 40 C.F.R. Part 63, Subpart JJJJJJ. [40 C.F.R. §§ 63.11193, 63.11195, and 63.11237]

Boilers #373-1 and #373-3 are not subject to National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 C.F.R. Part 63, Subpart DDDDD because they are not located at a major HAP source. [40 C.F.R. § 63.7485]

### 4. Control Equipment

There is no control equipment required for Boilers #373-1 and #373-3.

### 5. Periodic Monitoring

The PNS facility-wide natural gas fuel use limit of 2.26 billion cubic feet per year will not change as a result of bringing these units on line. Periodic monitoring for Boilers #373-1 and #373-3 shall include recordkeeping to document fuel use both on a monthly and 12-month rolling total basis. Documentation shall include the type of fuel used.

### G. Emergency Generator G26 and Emergency Generator G27

PNS operates Emergency Generators G26 and G27 to provide emergency backup power to support facilities at the Shipyard. Emergency Generators G26 and G27 are both Caterpillar units rated at 1.5 MW (14.4 MMbtu/hr) each. Both engines were manufactured and installed in 2015 and are both EPA certified Tier 2 engines that fire distillate fuel with a maximum sulfur content of 0.0015% by weight (15 ppm).

### Departmental Findings of Fact and Order Part 70 Air Emission License Amendment #1

### 1. BACT and Emission Standards

The BACT analysis documented in NSR license A-452-77-8-A (November 19, 2015) identified the following emission factors as the basis for the BACT emission limits for Emergency Generators G26 and G27:

PM/PM<sub>10</sub> - 0.34 g/kW-hr from 40 C.F.R. Part 60, Subpart IIII SO<sub>2</sub> - combustion of distillate fuel with a maximum sulfu

11

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>
- 7.0 g/kW-hr from 40 C.F.R. Part 60, Subpart IIII
CO
- 5.0 g/kW-hr from 40 C.F.R. Part 60, Subpart IIII
VOC
- 1.3 g/kW-hr from 40 C.F.R. Part 60, Subpart IIII

Visible - 06-096 C.M.R. 140, BPT

**Emissions** 

The BACT emission limits for Emergency Generators G26 and G27 are the following:

<u>Unit</u>	Pollutant	lb/MMBtu
Emergency Generator G26	PM	0.12
Emergency Generator G27	PM	0.12

<u>Unit</u>	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)
Emergency Generator G26 (14.4 MMBtu/hr) Distillate fuel	1.12	1.12	0.02	23.13	16.52	4.30
Emergency Generator G27 (14.4 MMBtu/hr) Distillate fuel	1.12	1.12	0.02	23.13	16.52	4.30

Visible emissions from each of the distillate fuel-fired emergency generators shall not exceed 20% opacity on a six-minute block average basis.

Compliance with the above limits shall be demonstrated by emissions testing as requested by the Department.

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

Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, 40 C.F.R. Part 60, Subpart IIII is applicable to the emergency engines (G26 and G27) since the units were ordered after July 11, 2005, and manufactured after April 1, 2006.

Emergency Engine Designation and Operating Criteria

Under 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 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.

12

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

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

[40 C.F.R. § 60.4211(f) and § 60.4219]

- b. 40 C.F.R. Part 60, Subpart IIII Requirements
  - (1) Manufacturer Certification Requirement
    The engines shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in 40 C.F.R. § 60.4202. [40 C.F.R. § 60.4205(b)]
  - (2) Ultra-Low Sulfur Fuel Requirement
    The distillate fuel fired in the engines shall not exceed 15 ppm sulfur (0.0015% sulfur), except that any existing distillate fuel purchased (or otherwise obtained) prior to October 1, 2010, may be used until depleted. [40 C.F.R. § 60.4207(b)]
  - (3) Non-Resettable Hour Meter Requirement
    A non-resettable hour meter shall be installed and operated on each engine. [40 C.F.R. § 60.4209(a)]
  - (4) Operation and Maintenance Requirement

    The engines shall be operated and maintained according to the manufacturer's emission-related written instructions or procedures developed by facility that are approved by the engine manufacturer.

    PNS may only change those emission-related settings that are permitted by the manufacturer. [40 C.F.R. § 60.4211(a)]

### (5) Annual Time Limit for Maintenance and Testing

As emergency engines, the units shall each be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). [40 C.F.R. § 60.4211(f)]

### (6) Initial Notification Requirement

No initial notification is required for emergency engines. [40 C.F.R. § 60.4214(b)]

### (7) Recordkeeping

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

### 3. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 C.F.R. Part 63, Subpart ZZZZ is applicable to Emergency Generator G26 and Emergency Generator G27. The units are considered new, emergency stationary reciprocating internal combustion engines at an area HAP source. However, the units are also subject to New Source Performance Standards. By meeting the requirements of 40 C.F.R. Part 60, Subpart IIII, the units also meet the requirements found in 40 C.F.R. Part 63, Subpart ZZZZ.

### 4. Control Equipment

There is no control equipment required for Emergency Generators G26 and G27.

### H. Facility Annual Emissions

The facility's licensed annual emissions totals are not changing as a result of this amendment and shall remain as currently licensed.

Departmental
Findings of Fact and Order
Part 70 Air Emission License
Amendment #1

### III.AMBIENT AIR QUALITY ANALYSIS

PNS previously submitted an ambient air quality analysis demonstrating that emissions from the facility, in conjunction with all other sources, do not violate ambient air quality standards (see license A-452-70-A-I, issued on March 1, 2000). An additional ambient air quality analysis is not required for this Part 70 License Amendment.

15

### **ORDER**

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

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

The Department hereby grants Part 70 License Amendment A-452-70-E-A pursuant to 06-096 C.M.R. 140 and the preconstruction permitting requirements of *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115 and subject to the conditions found in Air Emission License A-452-70-D-R/A and the following conditions.

Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements in 06-096 C.M.R. ch. 115 for making such changes and pursuant to the applicable requirements in 06-096 C.M.R. ch. 140.

For each specific condition which is state enforceable only, state-only enforceability is designated with the following statement: **Enforceable by State-only**.

<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.

### **SPECIFIC CONDITIONS**

The following shall replace Parts A.-G. of Condition (14) of Air Emission License A-452-70-D-R/A (July 23, 2015); Parts H and I are not being changed:

16

### (14) Fuel Burning Equipment (Boilers, Furnaces, Ovens):

A. PNS is licensed to operate the following boilers and fuel burning equipment:

EMISSION UNIT ID	UNIT CAPACITY (MMBtu/hr)		
Boiler #1	87		
Boiler #2	87		
Furnace/Forge	5.2		
Despatch Oven	3.1		
Boiler #337-1	2.5		
Boiler #337-2	2.5		
Boiler #298	1.3		
Boiler #310	1.26		
Boiler #373-1	2.0		
Boiler #373-2	2.0		
Boiler #373-3	2.0		

### B. Allowable Fuels and Fuel Sulfur Content

### 1. Allowable Fuels

- a. Boilers #1 and #2 are licensed to fire natural gas and distillate fuel. Boilers #298, #310, and the furnace/forge fire distillate fuel. Boilers #337-1, #337-2, #373-1, #373-2, #373-3, and the Despatch Oven fire only natural gas. [A-452-70-D-R/A (7/23/2015), BPT, A-452-77-6-A (8/20/2014), BPT, & A-452-77-8-A (11/19/2015), BPT]
- b. PNS shall maintain records of the quantity of fuel consumed on a monthly and 12-month rolling total basis. [A-452-70-D-R/A (7/23/2015), BPT, A-452-77-6-A (8/20/2014), BPT, & A-452-77-8-A (11/19/2015), BPT]

### 2. Fuel Sulfur Content

- a. Prior to July 1, 2018, the distillate fuel fired in the Boilers and Furnace/Forge shall not exceed a maximum sulfur content limit of 0.05% by weight (except that any existing distillate fuel purchased or otherwise obtained prior to July 1, 2018, may be used until depleted). [A-452-70-D-R/A (7/23/2015), BPT]
- b. 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) for use in the Boilers or Furnace/Forge. [38 M.R.S. § 603-A(2)(A)(3)]
- c. Compliance shall be demonstrated by fuel records from the supplier showing the type and the percent sulfur by weight of the fuel delivered, as applicable. [A-452-70-D-R/A (7/23/2015), BPT & 40 C.F.R. Part 60, Subpart Dc]

### C. Emission Limits

1. Emissions from Boilers #1 and #2 shall not exceed the following limits when firing distillate fuel:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.08 A-452-70-B-A	A-452-70-B-A (4/16/2003), BPT	Federally
FIVI	0.08	A-432-70-B-A (4/10/2003), BF 1	Enforceable
DM	0.08	A 452 70 D A (4/16/2002) DDT	Federally
$PM_{10}$	0.08	A-452-70-B-A (4/16/2003), BPT	Enforceable

PNS shall be limited to the following short-term emission limits for each boiler when firing distillate fuel as an alternative [A-452-70-B-A (4/16/2003), BPT]:

Pollutant	<u>lb/MMBtu</u>	Boilers #1 and #2 (lb/hr) each	Enforceability
PM	0.08	7.0	Federally Enforceable
$PM_{10}$		7.0	Federally Enforceable
SO <sub>2</sub>		4.4	Federally Enforceable
NO <sub>X</sub>	0.20 (oil back-up)	17.4	Federally Enforceable
CO		8.7	Federally Enforceable
VOC		0.9	Federally Enforceable

2. Emissions from Boilers #1 and #2 shall not exceed the following limits when firing natural gas:

18

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
DM	0.05	A 452 70 D A (4/16/2002) DDT	Federally
PM	0.05	A-452-70-B-A (4/16/2003), BPT	Enforceable
D) (	0.05	A 452 70 D A (4/16/2002) DBT	Federally
PM <sub>10</sub>	0.05	A-452-70-B-A (4/16/2003), BPT	Enforceable

PNS shall be limited to the following short-term emission limits for each boiler when firing natural gas [A-452-70-B-A (4/16/2003), BPT]:

Pollutant	lb/MMBtu	Boilers #1 and #2 (lb/hr) each	Enforceability
PM	0.05	4.4	Federally Enforceable
PM <sub>10</sub>		4.4	Federally Enforceable
SO <sub>2</sub>		0.1	Federally Enforceable
NO <sub>x</sub>	0.10 (natural gas)	8.7	Federally Enforceable
CO		6.5	Federally Enforceable
VOC		0.4	Federally Enforceable

3. Emissions from the Furnace/Forge (which fires distillate oil), Boilers #337-1 and #337-2, and Boilers #373-1 and #373-3, and the Despatch Oven (which fire natural gas only) shall not exceed the following federally enforceable limits:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Furnace/Forge	PM	0.20	06-096 C.M.R. 103
Despatch Oven	PM	0.20	06-096 C.M.R. 103
Boiler #337-1	PM	0.05	A-452-77-6-A (8/20/2014), BACT
Boiler #337-2	PM	0.05	A-452-77-6-A (8/20/2014), BACT
Boiler #373-1	PM	0.05	A-452-77-8-A (11/19/2015), BACT
Boiler #373-3	PM	0.05	A-452-77-8-A (11/19/2015), BACT

Emissions from the Furnace/Forge, Boiler #298, and Boiler #310 (which fire distillate oil) and Boilers #337-1, #337-2, #373-1, #373-2, #373-3, and the Despatch Oven (which fire natural gas only) shall not exceed the following federally enforceable limits. [A-452-70-D-R/A (7/23/2015), BPT, A-452-77-6-A (8/20/2014), BACT & A-452-77-8-A (11/19/2015), BACT]:

	11
4	4
- 1	ч.

<u>Unit</u>	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)
Furnace/Forge	1.1	1.1	2.6	0.8	0.2	0.1
Despatch Oven	0.6	0.6	1.6	0.4	0.1	0.1
Boiler #337-1	0.13	0.13	0.01	0.24	0.20	0.01
Boiler #337-2	0.13	0.13	0.01	0.24	0.20	0.01
Boiler #373-1	0.13	0.13	0.01	0.24	0.16	0.01
Boiler #373-2	0.13	0.13	0.01	0.24	0.20	0.01
Boiler #373-3	0.13	0.13	0.01	0.24	0.16	0.01
Boiler #298	0.10	0.10	0.07	0.19	0.05	0.01
Boiler #310	0.10	0.10	0.07	0.19	0.05	0.01

- D. PNS shall operate Boilers #1 and #2 such that the visible emissions from each unit does not exceed an opacity of 20% on a six-minute block average basis, except for one six-minute period per hour of not more than 27% opacity, demonstrated in accordance with 40 C.F.R. Part 60, Appendix A, Method 9. Visible emissions from each unit (Boiler #1 and Boiler #2) firing natural gas shall not exceed 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three-hour period. [40 C.F.R. Part 60, Subpart Dc & 06-096 C.M.R. ch. 101]
- E. Visible emissions from the Furnace/Forge shall each not exceed 20% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three-hour period. [A-452-70-D-R/A (7/23/2015), BPT]
- F. Despatch Oven, Boilers #337-1 and #337-2, and Boilers #373-1, #373-2, and #373-3 Visible Emissions
  - 1. Visible emissions from the Despatch Oven, Boilers #337-1 and #337-2, and Boiler #373-2 firing natural gas shall each not exceed 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three-hour period. [06-096 C.M.R. ch. 101]
  - 2. Visible emissions from Boilers #373-1 and #373-3, firing natural gas shall each not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 140, BPT]

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

Boilers #1 and #2 shall comply with all operating and documentation requirements of *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*, 40 C.F.R. Part 60, Subpart Dc.

Departmental
Findings of Fact and Order
Part 70 Air Emission License
Amendment #1

20

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

### 1. Standards

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

The distillate fuel fired in Boilers #1 and #2 shall not exceed 0.5% sulfur by weight. [40 C.F.R. § 60.42c(d)] By meeting the fuel sulfur content requirements in section B. of this Condition, PNS shall be in compliance with this requirement.

### b. Opacity

Visible emissions from Boilers #1 and #2 when firing distillate fuel each shall not exceed 20% opacity on a six-minute block average, except for one six-minute block average of not more than 27% opacity. [40 C.F.R. § 60.43c(c)]

### 2. Monitoring Requirements

- a. Except as provided in paragraph c. below, PNS shall conduct performance tests on Boilers #1 and #2 for opacity using 40 C.F.R. Part 60, Appendix A, Method 9 according to the following schedule [40 C.F.R. § 60.47c(a)]:
  - (1) If no visible emissions were observed in the most recent Method 9 performance test, the next performance test shall be completed within 12 calendar months or within 45 days of firing distillate fuel in the boiler, whichever is later;
  - (2) If visible emissions were observed in the most recent Method 9 performance test, and the maximum 6-minute block average was less than or equal to 5% opacity, the next performance test shall be completed within 6 calendar months or within 45 days of firing distillate fuel in the boiler, whichever is later;
  - (3) If visible emissions were observed in the most recent Method 9 performance test, and the maximum 6-minute block average was greater than 5% but less than or equal to 10% opacity, the next performance test shall be completed within 3 calendar months or within 45 days of firing distillate fuel in the boiler, whichever is later; and

- (4) If visible emissions were observed in the most recent Method 9 performance test, and the maximum 6-minute block average was greater than 10% opacity, the next performance test shall be completed within 45 days.
- b. The observation period for the Method 9 performance test may be reduced from 3 hours to 60 minutes if all 6-minute block averages are less than 10% opacity and all individual 15-second observations are less than or equal to 20% opacity during the initial 60 minutes of observation. [40 C.F.R. § 60.47c(a)]
- c. If the visible emission observed in the most recent Method 9 performance test were less than 10% opacity, PNS may elect to perform subsequent performance tests using 40 C.F.R. Part 60, Appendix A, Method 22 as follows [40 C.F.R. § 60.47c(a)(2)]:
  - (1) PNS shall conduct 10-minute observations each operating day Boilers #1 and #2 fire distillate fuel using Method 22;
  - (2) If no visible emissions are observed for 10 operating days, PNS may reduce observations to once every 7 operating days. If any visible emissions are observed, daily observations shall be resumed;
  - (3) If the sum of the occurrence of any visible emissions is greater than 30 seconds per 10-minute observation, PNS shall immediately conduct a 30-minute observation; and
  - (4) If the sum of the occurrence of any visible emissions is greater than 90 seconds per 30-minute observation, PNS shall either document the adjustments made to Boilers #1 and #2 and demonstrate within 24 hours that the sum of the occurrence of any visible emissions is not greater than 90 seconds per 30-minute observation or conduct a Method 9 performance test within 45 days.

### 3. Reporting and Recordkeeping

- a. PNS shall maintain records of the amounts of each fuel combusted during each calendar month with fuel certifications. [40 C.F.R. § 60.48c(g)]
- b. PNS shall submit performance test data from all performance tests required under this subpart to both the Department and EPA. [40 C.F.R. § 60.48c(b)]

- c. For each opacity performance test performed, PNS shall maintain records of the following [40 C.F.R. § 60.48c(c)]:
  - (1) Date and time intervals of all opacity or visible emissions observation periods;
  - (2) Name and affiliation for each visible emission observer participating in the performance test. For Method 9 performance tests, include a copy of the current visible emission reading certification for each visible emission observer;
  - (3) Copies of all visible emission observer opacity field data sheets; and
  - (4) Documentation of any adjustments made and the time the adjustments were completed to demonstrate compliance with the applicable monitoring requirements (Method 22 observations only).
- d. PNS shall submit semi-annual reports to EPA and to the Department. [40 C.F.R. § 60.48c(d)] These reports shall include the following:
  - (1) Calendar dates covered in the reporting period; [40 C.F.R. § 60.48c(e)(1)]
  - (2) Records of fuel supplier certifications; [40 C.F.R. § 60.48c(e)(11)] and
  - (3) Any instances of excess emissions (including opacity) from Boilers #1 and #2 required by 40 C.F.R. § 60.48c(c). [40 C.F.R. § 60.48c(c)]
- e. The semi-annual reports are due within 30 days of the end of each six-month period. [40 C.F.R. § 60.48c(j)]
- f. All records required under this section shall be maintained by PNS for a period of two years following the date of such record. [40 C.F.R. § 60.48c(i)]
- g. The following address for EPA shall be sued for any reports or notifications required to be copied to them:

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

The following shall replace Condition (16)(A.) and (C.) of Air Emission License A-452-70-D-R/A (July 23, 2015):

### (16) Turbine Generator #2 with Distillate Fuel Alternative

### A. Operation and Fuel Sulfur Content

1. PNS is licensed to operate a 5.5 MW co-generation natural gas-fired turbine designated as Turbine #2, with distillate fuel as an alternative and with supplemental duct burning. [A-452-70-B-A (4/16/03), BACT]

### 2. Fuel Sulfur Content

- a. Prior to July 1, 2018, the distillate fuel fired in Turbine Generator #2 and HRSG #2 shall have a maximum sulfur content of 0.05% by weight. [06-096 C.M.R. ch. 140, BPT]
- b. Beginning July 1, 2018, PNS shall not purchase or otherwise obtain distillate fuel with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm) for use in Turbine Generator #2 and HRSG #2. [38 M.R.S. § 603-A(2)(A)(3)(a)]
- c. Sulfur content compliance shall be demonstrated by fuel delivery receipts from the supplier indicating the type and percent sulfur of the fuel delivered. [06-096 C.M.R. ch. 140, BPT]
- C. The HRSG duct burner rated at 45.3 MMBtu/hr for Turbine Generator #2 is subject to the New Source Performance Standards (NSPS), Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, 40 C.F.R. Part 60, Subpart Dc.

PNS shall comply with all requirements of 40 C.F.R. Part 60, Subpart Dc applicable to the HRSG including, but not limited to, the following:

### 1. Standards

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

The fuel fired in HRSG #2 shall not exceed 0.5% sulfur by weight. [40 C.F.R. § 60.42c(d)] By meeting the fuel sulfur content requirements in section A. of this Condition, PNS shall be in compliance with this requirement.

### b. Opacity

Visible emissions from HRSG #2 when firing distillate fuel shall not exceed 20% opacity on a six-minute block average, except for one six-minute block average of not more than 27% opacity. [40 C.F.R. § 60.43c(c)]

### 2. Monitoring Requirements

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

24

- c. If the visible emission observed in the most recent Method 9 performance test were less than 10% opacity, PNS may elect to perform subsequent performance tests using 40 C.F.R. Part 60, Appendix A, Method 22 as follows [40 C.F.R. § 60.47c(a)(2)]:
  - (1) PNS shall conduct 10-minute observations each operating day HRSG #2 fires distillate fuel using Method 22;
  - (2) If no visible emissions are observed for 10 operating days, PNS may reduce observations to once every 7 operating days. If any visible emissions are observed, daily observations shall be resumed;
  - (3) If the sum of the occurrence of any visible emissions is greater than 30 seconds per 10-minute observation, PNS shall immediately conduct a 30-minute observation; and
  - (4) If the sum of the occurrence of any visible emissions is greater than 90 seconds per 30-minute observation, PNS shall either document the adjustments made to HRSG #2 and demonstrate within 24 hours that the sum of the occurrence of any visible emissions is not greater than 90 seconds per 30-minute observation or conduct a Method 9 performance test within 45 days.

### 3. Reporting and Recordkeeping

- a. PNS shall maintain records of the amounts of each fuel combusted during each calendar month with fuel certifications. [40 C.F.R. § 60.48c(g)]
- b. PNS shall submit performance test data from all performance tests required under this subpart to both the Department and EPA. [40 C.F.R. § 60.48c(b)]
- c. For each opacity performance test performed, PNS shall maintain records of the following [40 C.F.R. § 60.48c(c)]:
  - (1) Date and time intervals of all opacity or visible emissions observation periods;
  - (2) Name and affiliation for each visible emission observer participating in the performance test. For Method 9 performance tests, include a copy of the current visible emission reading certification for each visible emission observer;
  - (3) Copies of all visible emission observer opacity field data sheets; and
  - (4) Documentation of any adjustments made and the time the adjustments were completed to demonstrate compliance with the applicable monitoring requirements (Method 22 observations only).

- d. PNS shall submit semi-annual reports to EPA and to the Department. [40 C.F.R. § 60.48c(d)] These reports shall include the following:
  - (1) Calendar dates covered in the reporting period; [40 C.F.R. § 60.48c(e)(1)]
  - (2) Records of fuel supplier certifications; [40 C.F.R. § 60.48c(e)(11)] and
  - (3) Any instances of excess emissions (including opacity) from HRSG #2 required by 40 C.F.R. § 60.48c(c). [40 C.F.R. § 60.48c(c)]
- e. The semi-annual reports are due within 30 days of the end of each six-month period. [40 C.F.R. § 60.48c(j)]
- f. All records required under this section shall be maintained by PNS for a period of two years following the date of such record. [40 C.F.R. § 60.48c(i)]
- g. The following address for EPA shall be sued for any reports or notifications required to be copied to them:

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

The following is a new Condition to Air Emission License A-452-70-D-R/A (July 23, 2015):

### (35) Emergency Generators G26 and G27

- A. The Emergency Generators G26 and G27 shall each be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [A-452-77-8-A (11/19/2015), BPT]
- B. Emissions shall not exceed the following:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Emergency Generator G26	PM	0.12	06-096 C.M.R. ch. 103(2)(B)(1)(a)
Emergency Generator G27	PM	0.12	06-096 C.M.R. ch. 103(2)(B)(1)(a)

C. Emissions shall not exceed the following limits [A-452-77-8-A (11/19/2015), BACT]:

<u>Unit</u>	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)
Emergency Generator G26 (14.4 MMBtu/hr)	1.12	1.12	0.02	23.13	16.52	4.30
Emergency Generator G27 (14.4 MMBtu/hr)	1.12	1.12	0.02	23.13	16.52	4.30

### D. Visible Emissions

Visible emissions from each emergency generator shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 140, BPT]

- E. Emergency Generators G26 and G27 shall meet the applicable requirements of 40 C.F.R. Part 60, Subpart IIII, including the following:
  - 1. Manufacturer Certification
    The engines shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in 40 C.F.R. § 60.4202. [40 C.F.R. § 60.4205(b)]
  - 2. Ultra-Low Sulfur Distillate Fuel
    The distillate fuel fired in the engines shall not exceed 15 ppm sulfur (0.0015% sulfur by weight), except that any existing distillate 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) & A-452-77-8-A (11/19/2015), BPT]
  - 3. Non-Resettable Hour Meter
    A non-resettable hour meter shall be installed and operated on each engine.
    [40 C.F.R. § 60.4209(a)]

Departmental
Findings of Fact and Order
Part 70 Air Emission License
Amendment #1

28

- 4. Annual Time Limit for Maintenance and Testing
  - a. The engines shall each be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). These limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written log) of all engine operating hours. [40 C.F.R. § 60.4211(f) and A-452-77-8-A (11/19/2015), BPT]
  - b. PNS shall keep records that include maintenance conducted on the engines and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the number of hours each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason each engine was in operation during each time. [40 C.F.R. § 60.4214(b)]
- 5. Operation and Maintenance

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

DONE AND DATED IN AUGUSTA, MAINE THIS	3	DAY OF	November	, 2017
---------------------------------------	---	--------	----------	--------

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc allen beleit (ine for PAUL MERCER, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-452-70-D-R/A.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 8/3/2016

Date of application acceptance: 8/8/2016

Date filed with the Board of Environmental Protection:

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

NOV 0 3 2017

State of Maine
Board of Environmental Protection