



DEPARTMENT ORDER

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

**Departmental
Findings of Fact and Order
Part 70 Air Emission License
Amendment #6**

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 Minor 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 an existing stationary source currently operating under Part 70 License A-452-70-D-R/A, issued July 23, 2015, and amendments A-452-70-E-A (November 3, 2017), A-452-70-F-A (May 24, 2018), A-452-70-H-A (July 17, 2018), A-452-70-G-A (September 24, 2018), and A-452-70-I-A (August 16, 2019) and licenses to construct issued under the New Source Review (NSR) program as found in *Minor and Major Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115.

PNS has requested an amendment to the facility's Part 70 license to incorporate the terms and conditions of NSR License A-452-77-12-A, issued October 11, 2019. This NSR license was issued for the addition of one 225 kW emergency generator, identified as Emergency Generator G37, and one 500 kW non-emergency generator, identified as Generator G38.

B. Emission Equipment

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

Generators

<u>Equipment</u>	<u>Max. Heat Input Capacity (MMBtu/hr)</u>	<u>Max. Firing Rate (gal/hr)</u>	<u>Output (kW)</u>	<u>Fuel Type, % sulfur</u>	<u>Manuf. Date</u>	<u>Install. Date</u>
Emergency Generator G37	2.2	16.1	225	Distillate fuel, 0.0015%	2019	2019
Generator G38	4.9	35.9	500		2019	2020

C. Definitions

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.

A Part 70 Minor License Modification is for a license change that meets the following criteria:

- Does not violate any Applicable requirement;
- Does not involve a significant change to existing monitoring, reporting, or recordkeeping requirements in the license;
- Does not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impact or a visibility or increment analysis;
- Does not seek to establish or change a Part 70 license term or condition for which there is no corresponding underlying Applicable requirement, and that the source has assumed to avoid an Applicable requirement to which the source would otherwise be subject. Such terms and conditions include a federally enforceable emissions cap assumed to avoid classification as a Title I modification or a modification or reconstruction under any provision of Section 111, or 112 of the Clean Air Act (CAA);

- and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the CAA;
- Is not a Title I modification or a modification or reconstruction under any provision of Section 111 or 112 of the CAA; and
 - Is not required by the Department to be processed under Part 70 Significant License Modification procedures.

PNS has requested incorporation into the Part 70 Air License the relevant terms and conditions of NSR License A-452-77-12-A issued to the Shipyard pursuant to *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115, on October 11, 2019.

The incorporation of a minor modification NSR license into a Part 70 license is not considered a Part 70 Significant License Modification provided the minor modification NSR license addressed only addition of new equipment or addition of new requirements (i.e., does not modify previously existing requirements). Therefore, this request is not considered a Part 70 Significant License Modification.

A minor modification NSR license is not a Title I modification. The facility is not proposing substantial changes to existing monitoring and testing requirements, nor is it proposing the relaxation of existing license conditions.

Therefore, the facility's request to incorporate NSR requirements is classified as a Part 70 Minor License Modification and has been processed under *Part 70 Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 140.

II. AMENDMENT DESCRIPTION

A. NSR License Description

The Department issued NSR License A-452-77-12-A to PNS on October 11, 2019. The license was issued to install two new pieces of equipment at the facility: a 225-kW emergency generator, identified as Emergency Generator G37, to provide backup power at the facility, and a 500 kW non-emergency generator, identified as Generator G38, to support homeported Coast Guard vessels at the Shipyard. 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. 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 as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in 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 Emergency Generator G37 and Generator G38 was documented in NSR License A-452-77-12-A (10/11/2019). The BACT requirements are included in this license.

C. Emergency Generator G37

PNS intends to operate Emergency Generator G37 to provide emergency backup power to support facilities at the Shipyard. Emergency Generator G37 is a generator set consisting of a John Deere Model 6090HF484 engine and a Kohler brand electrical generator. The unit has an engine rated at 2.2 MMBtu/hr (225 kW output) which fires distillate fuel with a maximum sulfur content not to exceed 0.0015% by weight (15 ppm). Emergency Generator G37 was manufactured in 2019 and will be installed at the facility in late 2019.

1. BACT and Emission Standards

The BACT analysis documented in NSR License A-452-77-12-A (10/11/2019) identified the following emission factors as the basis for BACT emission limits for Emergency Generator G37:

PM/PM ₁₀	- 0.12 lb/MMBtu from 06-096 C.M.R. ch. 115, BACT
SO ₂	- combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight)
NO _x	- 4.41 lb/MMBtu from AP-42, Table 3.3-1, dated 10/96
CO	- 0.95 lb/MMBtu from AP-42, Table 3.3-1, dated 10/96
VOC	- 0.35 lb/MMBtu from AP-42, Table 3.3-1, dated 10/96
Visible Emissions	- 06-096 C.M.R. ch. 115, BACT

The BACT emission limits for Emergency Generator G37 are the following:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Emergency Generator G37	0.26	0.26	0.01	9.70	2.09	0.77

Visible emissions from Emergency Generator G37 shall not exceed 20% opacity on a six-minute block average basis, except during periods of startup when the facility may elect to comply with the following work practice standards in lieu of this visible emission standard:

- a. Maintain a log (written or electronic) of the date, time, and duration of all unit startups;
- b. Operate the unit in accordance with the manufacturer's emission-related operating instructions;
- c. Minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup limitations apply; and
- d. Operate the unit, including any associated air pollution control equipment, at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

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 Emergency Generator G37 since the unit was ordered after July 11, 2005, and manufactured after April 1, 2006. By meeting the requirements of 40 C.F.R. Part 60, Subpart IIII, the internal combustion engine (ICE) also meets the requirements found in *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines*, 40 C.F.R. Part 63, Subpart ZZZZ.

a. 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.
- (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.

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

(1) Manufacturer Certification Requirement

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

(2) Ultra-Low Sulfur Fuel Requirement

The distillate fuel fired in the engine shall not exceed 15 ppm sulfur (0.0015% sulfur). [40 C.F.R. § 60.4207(b)]

(3) Non-Resettable Hour Meter Requirement

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

(4) Operation and Maintenance Requirement

The engine shall be operated and maintained according to the manufacturer's emission-related written instructions. 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

The engine 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 for emergency engines. [40 C.F.R. § 60.4214(b)]

(7) Recordkeeping

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

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

NESHAP for Stationary Reciprocating Internal Combustion Engines, 40 C.F.R. Part 63, Subpart ZZZZ is applicable to Emergency Generator G37. The unit is considered a new, emergency stationary reciprocating internal combustion engines at an area HAP source. However, the unit is also subject to New Source Performance Standards. By meeting the requirements of *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*, 40 C.F.R. Part 60, Subpart IIII the unit also meets the requirements found in 40 C.F.R. Part 63, Subpart ZZZZ.

4. Control Equipment

There is no control equipment required for Emergency Generator G37.

5. Periodic Monitoring

The fuel used in Emergency Generator G37 shall be included in the facility's distillate fuel limit of 4,900,000 gallons/year based on a 12-month rolling total. Compliance shall be demonstrated by records of total distillate fuel use kept on a monthly and 12-month rolling total basis.

D. Generator G38

PNS intends to operate Generator G38 to support homeported Coast Guard vessels at the Shipyard. Generator G38 is a generator set consisting of a Caterpillar Model C18 engine and a Caterpillar brand electrical generator. Generator G38 has an engine rated at 5.1 MMBtu/hr (500 kW output) which fires distillate fuel with a maximum sulfur content not to exceed 0.0015% by weight (15 ppm). The unit was manufactured in 2019 and will be installed at the facility in late 2020.

1. BACT and Emission Standards

The BACT analysis documented in NSR License A-452-77-12-A (10/11/2019) identified the following emission factors as the basis for BACT emission limits for Generator G38:

- PM/PM₁₀ - 0.12 lb/MMBtu from 06-096 C.M.R. ch. 103, § 2.B.(1)(a)
- SO₂ - combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight)
- NO_x - 0.67 g/kW-hr from 40 C.F.R. Part 60, Subpart IIII
- CO - 3.5 g/kW-hr from 40 C.F.R. Part 60, Subpart IIII
- VOC - 0.19 g/kW-hr from 40 C.F.R. Part 60, Subpart IIII
- Visible Emissions - 06-096 C.M.R. ch. 115, BACT

The BACT emission limits for Generator G38 are the following:

<u>Unit</u>	<u>Pollutant</u>	<u>lb/MMBtu</u>
Generator G38	PM	0.12

<u>Unit</u>	<u>PM (lb/hr)</u>	<u>PM₁₀ (lb/hr)</u>	<u>SO₂ (lb/hr)</u>	<u>NO_x (lb/hr)</u>	<u>CO (lb/hr)</u>	<u>VOC (lb/hr)</u>
Generator G38	0.59	0.59	0.01	0.82	4.28	0.23

Visible emissions from Generator G38 shall not exceed 20% opacity on a six-minute block average basis, except during periods of startup when the facility may elect to comply with the following work practice standards in lieu of this visible emission standard:

- a. Maintain a log (written or electronic) of the date, time, and duration of all unit startups;
- b. Operate the unit in accordance with the manufacturer's emission-related operating instructions;
- c. Minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply; and
- d. Operate the unit, including any associated air pollution control equipment, at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Documentation of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

Compliance with the above limits shall be demonstrated by emissions testing as required 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 Generator G38 since the unit was ordered after July 11, 2005 and manufactured after April 1, 2006. [40 C.F.R. § 60.4200(a)(2)(i)] By meeting the requirements of 40 C.F.R. Part 60, Subpart IIII, the internal combustion engine (ICE) also meets the requirements found in *NESHAP for Stationary Reciprocating Internal Combustion Engines*, 40 C.F.R. Part 63, Subpart ZZZZ. [40 C.F.R. § 63.6590(c)(1)]

The requirements of 40 C.F.R. Part 60, Subpart IIII applicable to Generator G38 are as follows:

a. Manufacturer Certification Requirement

Generator G38 shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in 40 C.F.R. § 60.4201(a). The unit and its integrated SCR system and diesel oxidation catalyst shall be operated and maintained such that the unit achieves the emission standards over the entire life of the engine. [40 C.F.R. §§ 60.4204(b), 60.4206, and 60.4211(c) and A-452-77-12-A (10/11/2019), BACT]

b. Ultra-Low Sulfur Fuel Requirement

The fuel fired in Generator G38 shall not exceed 15 ppm sulfur (0.0015% sulfur, by weight). [40 C.F.R. § 60.4207(b)]

c. Operation and Maintenance Requirement

Generator G38 and its integrated SCR system and diesel oxidation catalyst shall be operated and maintained according to the manufacturer's emission-related written instructions. PNS may only change those emission-related settings that are permitted by the manufacturer. [40 C.F.R. § 60.4211(a) and A-452-77-12-A (10/11/2019), BACT]

d. Monitoring Requirement

The diesel particulate filter on Generator G38 shall be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. [40 C.F.R. § 60.4209(b)]

e. Recordkeeping Requirement

PNS shall keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached. [40 C.F.R. § 60.4214(c)]

3. National Emission Standards for Hazardous Air Pollutants (NESHAP)

NESHAP for Stationary Reciprocating Internal Combustion Engines, 40 C.F.R. Part 63, Subpart ZZZZ is applicable to Generator G38. The unit is considered a new, non-emergency stationary reciprocating internal combustion engine at an area HAP source. However, the unit is also subject to New Source Performance Standards. By meeting the requirements of *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*, 40 C.F.R. Part 60, Subpart IIII the unit also meets the requirements found in 40 C.F.R. Part 63, Subpart ZZZZ.

4. Control Equipment

Generator G38 is equipped with a diesel particulate filter for control of PM, a selective catalytic reduction system for control of NO_x, and a diesel oxidation catalyst for control of CO and VOC.

5. Periodic Monitoring

The fuel used in Generator G38 shall be included in the facility's distillate fuel limit of 4,900,000 gallons/year based on a 12-month rolling total. Compliance shall be demonstrated by records of total distillate fuel use kept on a monthly and 12-month rolling total basis.

E. Facility Annual Emissions

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

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.

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 the Part 70 License Amendment A-452-70-J-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, in amendments A-452-70-E-A, A-452-70-F-A, A-452-70-H-A, A-452-70-G-A, and A-452-70-I-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**.

Severability. The invalidity or unenforceability of any provision of this License Amendment or part thereof shall not affect the remainder of the provision or any other provisions. This License Amendment 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 are new Conditions to Air Emission License A-452-70-D-R/A (July 23, 2015):

(40) **Emergency Generator G37**

- A. Emergency Generator G37 shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [A-452-77-12-A (10/11/2019), BACT]
- B. Emissions shall not exceed the following limits [A-452-77-12-A (10/11/2019), BACT]:

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Emergency Generator G37	0.26	0.26	0.01	9.70	2.09	0.77

C. Visible Emissions

Visible emissions from Emergency Generator G37 shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time PNS may elect to comply with the following work practice standards in lieu of this visible emission standard [A-452-77-12-A (10/11/2019), BACT]:

1. Maintain a log (written or electronic) of the date, time, and duration of all generator startups.
2. Operate the unit in accordance with the manufacturer's emission-related operating instructions.
3. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations shall apply.
4. Operate the unit, including any associated air pollution control equipment, at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

D. Emergency Generator G37 shall meet the applicable requirements of 40 C.F.R. Part 60, Subpart IIII, including the following:

1. Manufacturer Certification

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

2. Ultra-Low Sulfur Distillate Fuel

The distillate fuel fired in the engine shall not exceed 15 ppm sulfur (0.0015% sulfur by weight). 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 A-452-77-12-A (10/11/2019), BPT]

3. Non-Resettable Hour Meter

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

4. Annual Time Limit for Maintenance and Testing

a. The engine 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 A-452-77-12-A (10/11/2019), BPT]

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

5. Operation and Maintenance

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

(41) **Generator G38**

A. Emissions shall not exceed the following:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Generator G38	PM	0.12	A-452-77-12-A (10/11/2019), BACT

B. Emissions shall not exceed the following limits [A-452-77-12-A (10/11/2019), BACT]:

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator G38	0.59	0.59	0.01	0.82	4.28	0.23

C. Visible Emissions

Visible emissions from Generator G38 shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time PNS may elect to comply with the following work practice standards in lieu of this visible emission standard [A-452-77-12-A (10/11/2019), BACT]:

1. Maintain a log (written or electronic) of the date, time, and duration of all generator startups.
2. Operate the unit in accordance with the manufacturer's emission-related operating instructions.
3. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations shall apply.
4. Operate the unit, including any associated air pollution control equipment, at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.

D. Generator G38 shall meet the applicable requirements of 40 C.F.R. Part 60, Subpart IIII, including the following:

1. Manufacturer Certification Requirement

Generator G38 shall be certified by the manufacturer as meeting the emission standards for new nonroad compression ignition engines found in 40 C.F.R. § 60.4201(a). The unit and its integrated SCR system and diesel oxidation catalyst shall be operated and maintained such that the unit achieves the emission standards over the entire life of the engine. [40 C.F.R. §§ 60.4204(b), 60.4206, and 60.4211(c) and A-452-77-12-A (10/11/2019), BACT]

2. Ultra-Low Sulfur Fuel Requirement

The fuel fired in Generator G38 shall not exceed 15 ppm sulfur (0.0015% sulfur, by weight). 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 A-452-77-12-A (10/11/2019), BACT]

3. Operation and Maintenance Requirement

Generator G38 and its integrated SCR system and diesel oxidation catalyst shall be operated and maintained according to the manufacturer's emission-related written instructions. PNS may only change those emission-related settings that are permitted by the manufacturer. [40 C.F.R. § 60.4211(a) and A-452-77-12-A (10/11/2019), BACT]

4. Monitoring Requirement

The diesel particulate filter on Generator G38 shall be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. [40 C.F.R. § 60.4209(b)]

5. Recordkeeping Requirement

PNS shall keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached. [40 C.F.R. § 60.4214(c)]

DONE AND DATED IN AUGUSTA, MAINE THIS 2nd DAY OF January, 2020.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: 

GERALD D. REID, 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: August 5, 2019

Date of application acceptance: August 15, 2019

Date filed with the Board of Environmental Protection:

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

