Portsmouth Naval Shipyard
York County
Kittery, Maine
A-452-70-D-R/A

Departmental
Findings of Fact and Order
Part 70 Air Emission License
Renewal/Amendment

FINDINGS OF FACT

After review of the Part 70 License renewal and amendment applications, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes Annotated (M.R.S.A.), §344 and §590, the Maine Department of Environmental Protection (Department) finds the following facts:

I. REGISTRATION

A. Introduction

Facility	Portsmouth Naval Shipyard (PNS)
LICENSE NUMBER	A-452-70-D-R/A
LICENSE TYPE	Part 70 License Renewal
NAIC CODES	336611 – Shipbuilding and Repair
NATURE OF BUSINESS	National Security (Submarine repair for U.S. Navy)
FACILITY LOCATION	Kittery, Maine

PNS 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 fourteen berths and/or one of three dry dock facilities, depending on the nature and extent of repairs and maintenance to be performed.

PNS has the potential to emit more than 100 tons per year (TPY) of nitrogen oxides (NOx) and carbon monoxide (CO) and more than 50 TPY of volatile organic compounds (VOC); therefore, the source is a major source for these criteria pollutants. PNS is limited through its federally enforceable air emissions license to emit less than 10 TPY of a single hazardous air pollutant (HAP) and 25 TPY of combined HAP; therefore, the source is an area source for HAP.

B. Emission Equipment

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

Boiler and Turbines

Equipment	Location	Maximum Heat Input Capacity (MMBtu/hr)	Max. Firing Rate	Fuel Type	Manufacture Date
Boiler #1	Building 72	87	84,466 scf/hr 621 gal/hr	Natural gas, distillate	2003
Boiler #2	Building 72	87	84,466 scf/hr 621 gal/hr	Natural gas, distillate	2003
Boiler #337-1	Building 337	2.5	2,439 scf/hr	Natural gas	2014
Boiler #337-2	Building 337	2.5	2,439 scf/hr	Natural gas	2014
Turbine Generator #1 (5.5 MW)	Building 72	67.8 (turbine)	65,825 scf/hr	Natural gas	2000
HRSG #1	Building 72	47.2 (duct burner)	45,825 scf/hr	Natural gas	2000
Turbine Generator #2 (5.5 MW)	Building 72	67.8 (turbine)	65,825 scf/hr 484.3 gal/hr	Natural gas, distillate	2003
HRSG #2	Building 72	45.3 (duct burner)	45,825 scf/hr 337.1 gal/hr	Natural gas, distillate	2003
Boiler 298	Building 298	1.3	9.3 gal/hr	Distillate	2002
Boiler 310	Building 310	1.3	9.0 gal/hr	Distillate	2012
Boiler 373-1	Building 373	2.0	1942 scf/hr	Natural Gas	2004
Boiler 373-2	Building 373	2.0	1942 scf/hr	Natural Gas	2004

Generators and Engines (Distillate Fuel)

Equipment	Location	Maximum Heat Input Capacity (MMBtu/hr)	Max. Firing Rate (gal/hr)	Output (kW)	Mfr. Date
G01	Building 72	20	145.9	2000	2003
G02	Building 72	20	145.9	2000	2003
G03	Building 29	3.0	21.9	300	2005
G05	Dry Dock 1	3.0	21.9	300	pre 1990
G06	Dry Dock 2	3.0	21.9	300	pre 1990
G08	Dry Dock 3	3.0	21.9	300	pre 1990
G09	CECC Building	6.0	47.2	600	2010
G10	Gate No.2 ECF	1.6	11.8	150	2012
G11	Building 79	0.7	5.2	60	2013
G12	Building 292	3.1	22.2	300	2014
G13	Building 43	1.9	13.8	175	2014

G14	Dry Dock 2	3.9	28.6	350	2014
G15	Building 174	0.5	3.7	40	2014
G16	Building 163	1.9	13.8	175	2015
(6) MUSE generators	Various locations, long term temporary	9.0	65.6	900	2007
Fire Pump	Building 170	1.1	8.0	150	2010
G17	Building 167	1.0	7.3	100	pre-2000
G18	Building 243	2.51	18.3	250	pre-2000
G19	Building 264	2.01	14.7	200	2004
G20	Building 298	2.51	18.3	250	2008
G21	Building 373	1.25	9.1	125	2003
G22	Dry Dock 1	2.51	18.3	250	pre-2000
G23	Dry Dock 1	2.01	14.7	200	pre-2000
G24	Dry Dock 2	2.51	18.3	250	pre-2000
G25	Dry Dock 3	2.51	18.3	250	pre-2000
Fire Pump	Building 86A	1.23	9.0	123	1988
Fire Pump	Building 132	0.90	6.6	90	1986
Fire Pump	Building 136	0.87	6.4	87	1986
Fire Pump	Building 306	0.74	5.4	74	1980
Fire Pump	Building 341	0.90	6.6	90	1989
Fire Pump	Building 343	1.56	11.4	155	1993

Other Fuel Burning Equipment

Equipment	Location	Maximum Heat Input Capacity (MMBtu/hr)	Max. Firing Rate	Fuel Type	Manufacture Date
Furnace/Forge	Building 76	5.2	37.1 gal/hr	distillate	1940
Despatch Oven	Building 240	3.1	3022scf/hr	Natural Gas	1954

Process Equipment

EMISSION UNIT ID	LOCATION	UNIT CAPACITY	UNIT TYPE
Painting and Coating Operations	Misc buildings/dry docks	n/a	process equipment
Abrasive Blasting and Containment Structures	Misc buildings/dry docks	n/a	process equipment
Gasoline Storage Tanks	n/a	n/a	miscellaneous equipment
Parts Washers	Misc buildings/dry docks	3-7 ft^2 (freeboard surface area)	miscellaneous equipment
Water Evaporator	Building 291	28 gal/hr	miscellaneous equipment
Radionuclides	Misc buildings/dry docks	n/a	miscellaneous equipment

PNS has additional insignificant activities which do not need to be listed in the emission equipment tables above. The list of insignificant activities at the Shipyard is maintained and updated by the facility. PNS has previously submitted an insignificant activity list in prior Part 70 license applications and will make the current list available upon Department request.

PNS has removed some equipment that was previously licensed. The following equipment has been removed from service and is not addressed in this air license:

Equipment	Location	Maximum Heat Input Capacity (MMBtu/hr)	Max. Firing Rate (gal/hr)	Output (kW)
Air Compressor	Dry docks	2.7	19.7	790
Air Compressor	Dry docks	2.7	19.7	790
Air Compressor	Dry docks	2.7	19.7	790
G04	Building 72	6.0	43.8	1750
G07	Dry Dock 2	3.5	25.5	1000

C. Application Classification

The application for PNS is for the renewal of their existing Part 70 Air License, A-452-70-C-R. This license renewal also includes fuel burning equipment that was considered "insignificant activities" per 06-096 CMR 140 Appendix B, however, the rule changed and now these units are subject to federally applicable requirements and therefore are no longer considered insignificant. Pursuant to Section 2(A) of 06-096 Code of Maine Rules (CMR) 140, PNS has also requested incorporation into the Part 70 Air License the relevant terms and conditions of the 06-096 CMR 115 New Source Review (NSR) licenses issued to PNS, including A-452-77-1-M issued November 24, 2008, A-452-77-2-M issued July 12, 2010, A-452-77-3-A issued December 1, 2010, A-452-77-4-A issued April 25, 2013, A-452-77-5-A issued April 16, 2014, A-452-77-6-A issued August 20, 2014, and A-452-77-7-A issued December 22, 2014. Therefore, the license is considered to be a Part 70 License renewal with the incorporation of NSR requirements.

D. Facility Description

The Portsmouth Naval 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 fourteen berths and/or one of three dry dock facilities, depending on the nature and extent of repairs and maintenance to be performed. There are two classes of submarines that are overhauled at the Shipyard, the older 688 Los Angeles Class and the newer 774

Virginia Class. A submarine may spend up to eighteen months in dry dock and another six months at a berth while repairs and maintenance take place. An overhaul may include such functions as systems upgrading and sandblasting and painting of the hull. An overhaul may also include system upgrading for internal components, such as ballast tanks and other structures, some of which are removed from the boat and reconditioned in one or more of the facility's numerous buildings. Activities at the shipyard include use of teflon, epoxy, other surface coatings, sealants, adhesives, metal cleaning agents and degreasers. Other activities at PNS include abrasive blasting, fiberglass processing, welding, woodworking, and operation of a central heating plant and emergency generators.

The PNS Power Plant has power and steam generation equipment consisting of two dual fuel-fired 87 MMBtu/hr boilers, two 20 MMBtu/hr diesel-fired backup generators, and two turbine generators with supplemental duct burners/HRSG. Turbine Generator #1 and the associated HRSG fire natural gas only while Turbine Generator #2/HRSG #2 have the ability to fire natural gas or #2 fuel oil with ≤0.05% sulfur content. The boilers will provide 70,000 pounds per hour of steam each. The generators will operate as backup for the gas turbines to provide electricity when utility or source-generated service power is unavailable.

E. General Facility Requirements

PNS is subject to the following state and federal regulations listed below, in addition to the regulations listed for specific units as described further in this license.

State Regulations:

Citation	Requirement Title
06-096 CMR 101	Visible Emissions
06-096 CMR 102	Open Burning
06-096 CMR 103	Fuel Burning Equipment Particulate Emission Standard
06-096 CMR 105	General Process Source Particulate Emission Standard
06-096 CMR 106	Low Sulfur Fuel
06-096 CMR 109	Emergency Episode Regulation
06-096 CMR 110	Ambient Air Quality Standard
06-096 CMR 115	Major and Minor Source Air Emission License Regulations
06-096 CMR 116	Prohibited Dispersion Techniques
06-096 CMR 118	Gasoline Dispensing Stations Vapor Control
06-096 CMR 129	Surface Coating Facilities
06-096 CMR 130	Solvent Degreasers
06-096 CMR 134	Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds
06-096 CMR 137	Emission Statements
06-096 CMR 138	Reasonably Available Control Technology for Facilities that Emit Nitrogen Oxides

06-096 CMR 140	Part 70 Air Emission License Regulations
06-096 CMR 143	New Source Performance Standards
06-096 CMR 144	National Emission Standards for Hazardous Air Pollutants (NESHAP)
06-096 CMR 148	Emission from small-scale electric generating sources

Federal Rules:

Before proceeding with the specific emission units' limits and requirements, the following table describes the federal rules applicable to PNS facility-wide:

Regulatory Citation	**Requirement Title (PNS applicable units and description)**
40 CFR 60 Subpart Dc	*Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.* This subpart applies to steam generating units constructed after June 1989 with a maximum heat input between 10 and 100 MMBtu/hr. PNS has two boilers rated at 87 MMBtu/hr each that are subject to this Subpart.
40 CFR 60 Subpart GG	*Standards of Performance for Stationary Gas Turbine* for which construction is commenced after October 3, 1977. PNS operates two turbine generators subject to the requirements set forth in Subpart GG.
40 CFR Part 60 Subpart IIII	*New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines.* PNS has several emergency generators subject to this rule.
40 CFR 61 Subpart I	*National Emission Standards for Radionuclide Emissions From Federal Facilities Other Than Nuclear Regulatory Commission Licensees and Not Covered by Subpart H.* PNS demonstrates compliance with the standards listed in Part 61.102 using alternative procedures approved by the EPA, as documented in a letter to the Department of the Navy from the EPA dated 1 October, 1997.
40 CFR 61 Subpart M	*National Emission Standard for Asbestos* PNS will follow appropriate procedures for asbestos emission control listed in Subpart 61.145. These procedures are compiled in an environmental corporation manual. PNS will also follow the standards of Subpart 61.150 for the disposal of asbestos. All asbestos is properly disposed of at PNS's hazardous waste disposal facility.
40 CFR Part 63 Subpart JJJJJJ	*National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters.* PNS operates Boilers #1 and #2 which are subject to this rule along with smaller heating units at the facility.

40 CFR Part 63 Subpart ZZZZ	*National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)* PNS operates emergency generators manufactured prior to 2006 which are subject to this rule.
40 CFR Part 70	*State Operating Permit Programs.* PNS submitted a timely and complete 40 CFR Part 70 operating license renewal application consistent with an EPA approved Maine Title V program.
40 CFR 82 Subpart F	*Recycling and Emissions Reduction.* Subpart F requires that ozone depleting refrigerants be recovered during the servicing of non-motor vehicle air conditioning or refrigerant equipment. PNS will ensure that any disposal or repair work done at the Shipyard is done only by technicians who are properly certified.

F. Units of Measurement

The following units of measurement are used in this license:

K	degree Kelvin
gal/hr	gallons per hour
g/s	grams per second
gr/dscf	grains per dry standard cubic feet
km	kilometers
kW	kilowatt
lb/hr	pounds per hour
lb/MMBtu	pounds per million British Thermal Units
lb/ton	pounds per ton
m	meters
m/s	meters per second
mg/dscm	milligrams per dry standard cubic meters
MMBtu/hr	million British Thermal Units per hour
MW	megawatt
ppm	parts per million
scf/hr	standard cubic feet per hour
tons/day	tons per day
tpy	tons per year
$\mu g/m^3$	micrograms per cubic meter

II. BEST PRACTICAL TREATMENT (BPT) AND EMISSION STANDARDS

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 06-096 CMR 100 (as amended). Separate control requirement

categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. NO_X RACT (Reasonably Available Control Technology)

Reasonably Available Control Technology for Facilities that Emit Nitrogen Oxides, 06-096 CMR 138 (as amended) is applicable to sources that have the potential to emit quantities of NO_X equal to or greater than 100 tons/year. Amendment A-452-71-D-A; issued to the facility on October 21, 1996, addressed NO_X RACT requirements. PNS has undergone significant changes to the units at the Shipyard with major changes in 2003 and later in 2005. The changes along with the subsequent new units were subject to and licensed under Best Available Control Technology, which was considered more stringent than NOx RACT requirements. Therefore, by meeting NOx BACT requirements, PNS meets the applicable requirements of 06-096 CMR 138, NOx RACT.

C. VOC RACT (Reasonably Available Control Technology)

Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds, 06-096 CMR 134 (as amended) is applicable to sources that have the potential to emit quantities of VOC equal to or greater than 40 tons/year. Amendment A-452-71-D-A, issued to the facility on October 21, 1996, addressed VOC RACT requirements. The processes at the Shipyard were determined to be meeting VOC RACT and the requirements are incorporated in this renewal.

D. NSR Review

Since the last Part 70 license renewal issued January 25, 2006, the Department has issued several New Source Review licenses under 06-096 CMR 115. This Part 70 air license renewal will incorporate all the following NSR amendments.

NSR License Number	Issue Date	To License...
A-452-77-1-M	November 24, 2008	Installation of a steam driven water evaporation unit.
A-452-77-2-M	July 12, 2010	Process modification associated modifying the Dry Dock #2 Refueling Building's ventilation system with the installation of a high efficiency particulate air (HEPA) filter.

NSR License Number	Issue Date	To License...
A-452-77-3-A	December 1, 2010	Installation of a 6.0 MMBtu/hr emergency generator for the Consolidated Emergency control Center (CECC).
A-452-77-4-A	April 25, 2013	Installation of a 1.6 MMBtu/hr emergency diesel generator for the reconstructed Gate #2 Entry Control Facility (ECF).
A-452-77-5-A	April 16, 2014	Installation of a 0.72 MMBtu/hr emergency diesel generator to support activities in Building 79 at the Shipyard.
A-452-77-6-A	August 20, 2014	Licensed the addition of two boilers each with a maximum heat input of 2.5 MMBtu/hr and the installation of a 3.1 MMBtu/hr emergency diesel generator (and allowed the installation of six temporary MUSE emergency generators)
A-452-77-7-A	December 22, 2014	Licensed the addition of four emergency diesel generators for back-up power in various buildings located at the Shipyard.

E. PSD/BACT Review

The Department issued Air License A-452-70-B-A on April 16, 2003 to PNS. The license was issued to permit construction and installation of a 5.5 megawatt (MW) dual fuel-fired turbine and supplemental duct burner, two dual fuel-fire boilers (87 MMBtu/hr each) to replace the existing older boilers and two large (20 MMBtu/hr each) diesel-fired emergency generators. The license was issued pursuant to Department's air licensing requirements for modifications of major sources.

F. Mandatory Greenhouse Gas (GHG) Reporting

Federal regulation 40 CFR Part 98, *Mandatory Greenhouse Gas Reporting*, which contains GHG reporting and related monitoring and recordkeeping requirements, is applicable to the owners/operators of any facility which falls into any one of the following three categories, per 40 CFR Part 98, Subpart A, *General Provision*, § 98.2, *Who must report?*

(a)(1) A facility that contains any source category that is listed in Table A–3 of this subpart in any calendar year starting in 2010.

(a)(2) A facility that contains any source category that is listed in Table A–4 of this subpart and that emits 25,000 metric tons CO_2e or more per year in combined emissions from stationary fuel combustion units, miscellaneous uses of carbonate, and all applicable source categories that are listed in Table A–3 and Table A–4 of this subpart

(a)(3) A facility that in any calendar year starting in 2010 meets all three of the conditions listed in this paragraph (a)(3). For these facilities, the annual

GHG report must cover emissions from stationary fuel combustion sources only.

(i) The facility does not meet the requirements of either paragraph (a)(1) or (a)(2) of this section.

(ii) The aggregate maximum rated heat input capacity of the stationary fuel combustion units at the facility is 30 MMBtu/hour or greater.

(iii) The facility emits 25,000 metric tons CO_2e or more per year in combined emissions from all stationary fuel combustion sources.

If PNS exceeds the use of 2,430,000* gallons of distillate in a calendar year (emits more than 25,000 metric tons (27,557 tons) of CO_2e in a calendar year), the facility will meet all three conditions listed in paragraph (a)(3) above, and will be subject to the recordkeeping and reporting requirements of 40 CFR Part 98.

* Based on a CO2e of 22,680 lb/1,000 gallons distillate oil

G. Compliance Assurance Monitoring (CAM)

40 CFR Part 64, *Compliance Assurance Monitoring,* is applicable to units at major sources if the unit has emission limits, a control device to meet the limits, and pre-control emissions greater than 100 tons/year for any pollutant. PNS does not have any units that have the pre-control emissions greater than 100 tons/year for any pollutant. Therefore CAM does not apply to this facility.

H. Stack Testing for Particulate Matter

PNS was required to and has performed initial performance NOx and PM stack tests for both the boilers and turbine generators. The stack tests have demonstrated compliance with the respective applicable state and/or federal emission limits. At this time, PNS does not have any ongoing required stack tests and is required to stack test only upon Department request.

I. Boilers (Boiler #1, Boiler #2, HRSG #1, HRSG #2, Boiler #337-1, Boiler #337-2, Boiler #310, Boiler #298-1, Boiler #373-1, and Boiler #373-2)

PNS implemented a project to downsize and modernize the Power Plant in 2003. The older oil-fired Boilers #2, #3, #4, and #5 were removed from service and replaced, per license amendment A-452-70-B-A issued April 16, 2003. PNS now operates two dual fuel fired boilers (Boilers #1 and #2) for steam and heating needs throughout the base, which are licensed to fire natural gas and distillate fuel as an alternative. PNS also operates (2) HRSG units (described in greater detail in Section K of this license) and several small boilers to assist in base operations. HRSG #1, #337-1, #337-2, #373-1, and #373-2 operate on natural gas only. HRSG #2 can fire distillate or natural gas. Boilers #298-1, #310, are significantly smaller units and fire distillate only.

Emissions from Boilers #1 and #2 exit through a common stack which has a diameter of five feet and above ground level (AGL) height of 167 feet.

1. Distillate Fuel requirement

   PNS shall monitor and record parameters for the boilers at the facility that fire distillate fuel by meeting the following:

   a. Prior to July 1, 2016 or the date specified in 38 MRSA §603-A(2)(A)(3), the distillate fuel fired in the boilers shall have a maximum sulfur content of 0.05% by weight. [06-096 CMR 115, BPT]
   b. Beginning July 1, 2016 or on the date specified in 38 MRSA §603-A(2)(A)(3), the facility shall fire distillate fuel with a maximum sulfur content limit of 0.005% by weight (50 ppm). [38 MRSA §603-A(2)(A)(3)]
   c. Beginning January 1, 2018 or on the date specified in 38 MRSA §603-A(2)(A)(3), the facility shall fire distillate fuel with a maximum sulfur content limit of 0.0015% by weight (15 ppm). [38 MRSA §603-A(2)(A)(3)]
   d. Compliance shall be demonstrated by fuel records from the supplier showing the quantity, type, and the percent sulfur of the fuel delivered (if applicable).

2. New Source Performance Standards (NSPS)

   Boilers #1 and #2, each rated at 87 MMBtu/hr, are subject to the New Source Performance Standards (NSPS), *Standards of Performance for Small Industrial-Commercial Steam Generating Units*, 40 CFR Part 60, Subpart Dc. This subpart applies to steam generating units constructed after June 1989 with a maximum heat input between 10 and 100 MMBtu/hr.

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

   a. PNS has submitted notification to EPA and the Department of the date of construction, anticipated start-up, and actual start-up. This notification included the design heat input capacity of the boilers and the type of fuel to be combusted. [40 CFR §60.48c(a)]
   b. PNS performed and submitted to EPA and the Department an initial performance test within 30 days after achieving the maximum production rate at which the facility will be operated but not later than 180 days after the initial start-up of the facility. The performance test consisted of fuel supplier certification of the sulfur content of the fuel fired in Boilers #1 and #2. The fuel supplier certification must contain the name of the oil supplier and a statement from the oil supplier that the oil complies with ASTM specifications for #2 fuel oil. [40 CFR §60.44c and 40 CFR §60.45c]

c. PNS shall record and maintain records of the amounts of each fuel combusted during each day or, if applicable, monthly records with fuel certifications. [40 CFR §60.48c(g)]
d. PNS shall submit to EPA and the Department semi-annual reports. These reports shall include the calendar dates covered in the reporting period and records of fuel supplier certifications. The semi-annual reports are due within 30 days of the end of each 6-month period.
e. PNS shall meet the Compliance and Performance Test Methods, Emissions Monitoring, and Reporting and Recordkeeping requirements for Particulate Matter and Sulfur Dioxide as specified in 40 CFR Part 60 Subpart Dc.
f. The following address for EPA shall be used for any reports or notifications required to be copied to them:

Compliance Clerk
USEPA Region 1
5 Post Office Sq. Suite 100
Boston, MA 02109-3912

40 CFR Part 60, Subpart Dc, 06-096 CMR 106 of the Department's regulations, and BPT requirements are applicable. NSPS specifies that SO_2 emissions must be less than 0.5 lb/MMBtu, or fuel with sulfur content less than 0.5% must be used. The fuel sulfur content of 0.05% to be used by Boilers #1 and #2 meets this standard. The BPT sulfur content limit and limits specified in 38 MRSA §603-A(2)(A)(3) are more stringent. Therefore, only these more stringent sulfur content limits are included in this license.

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

Since PNS is an area source for HAP, the boilers are not subject to *NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters* for Major Sources: contained in 40 CFR Part 63, Subpart DDDDD.

The Boilers #1 and #2 are subject to *NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters* for Area Sources: contained in 40 CFR Part 63, Subpart JJJJJJ. This Subpart is not applicable to units firing only natural gas which includes Boilers #337-1, #337-2, #373-1, and #373-2. This subpart also does not apply to hot water heaters which includes #298.

A summary of the currently applicable federal 40 CFR Part 63, Subpart JJJJJJ requirements is listed below. Boilers #1 and #2 are considered existing boilers. Notification forms and additional rule information can be found on the following website: http://www.epa.gov/ttn/atw/boiler/boilerpg.html.

a. Compliance Dates, Notifications, and Work Practice Requirements

i. Initial Notification of Compliance

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

ii. Boiler Tune-Up Program

(a) A boiler tune-up program was to be implemented to include the initial tune-up of applicable boilers no later than March 21, 2014. [40 CFR Part 63.11196(a)(1)]

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

1. As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted; not to exceed 72 months from the previous inspection for boilers with oxygen trim systems.[40 CFR Part 63.11223(b)(1) & (c)]
2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 CFR Part 63.11223(b)(2)]
3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted; 72 months from the previous inspection for boilers with oxygen trim systems. [40 CFR Part 63.11223(b)(3) & (c)]
4. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 CFR Part 63.11223(b)(4)]
5. Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 CFR Part 63.11223(b)(5)]
6. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 CFR Part 63.11223(b)(7)]

(c) The facility shall implement a boiler tune-up program after the initial tune-up and initial compliance report (called a Notification of Compliance Status) has been submitted.

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

Boiler Category	Tune-Up Frequency
New or Existing Oil, Biomass and Coal fired boilers that are not designated as "Boilers with less frequent tune up" requirements listed below	Every 2 years
New and Existing Oil, Biomass, and Coal fired Boilers with less frequent tune up requirements	
Boiler with oxygen trim system which maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune up	Every 5 years

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

2. The tune-up compliance report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the concentration of CO in the effluent stream (ppmv) and oxygen in volume percent, measured at high fire or typical operating load, before and after the boiler tune-up, a description of any corrective actions taken as part of the tune-up of the boiler, and the types and amounts of fuels used over the 12 months prior to the tune-up of the boiler. [40 CFR Part 63.11223(b)(6)]

   The compliance report shall also include the company name and address; a compliance statement signed by a responsible official certifying truth, accuracy, and completeness; and a description of any deviations and corrective actions. [40 CFR Part 63.11225(b)]

iii. Energy Assessment

Boilers #1 and #2 are subject to the energy assessment requirement as follows:

(a) A one-time energy assessment was required to be performed by a qualified energy assessor on the applicable boilers no later than March 21, 2014. [40 CFR Part 63.11196(a)(3)]

(b) The energy assessment shall include a visual inspection of the boiler system; an evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints; an inventory of major energy use systems consuming energy from affected boilers and which are under control of the boiler owner or operator; a review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage; a list of major energy conservation measures that are within the facility's control; a list of the energy savings potential of the energy conservation measures identified; and a comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.
[40 CFR Part 63, Table 2(16)]

(c) A Notification of Compliance Status was required to be submitted to EPA no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(c)]

b. Recordkeeping

Records shall be maintained consistent with the requirements of 40 CFR Part 63 Subpart JJJJJJ including the following [40 CFR Part 63.11225(c)]: copies of notifications and reports with supporting compliance documentation; 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; documentation of fuel type(s) used monthly by each boiler; the occurrence and duration of each malfunction of the boiler; and actions taken during periods of malfunction to minimize emissions and actions taken to restore the malfunctioning boiler to its usual manner of operation. Records shall be in a form suitable and readily available for expeditious review.

4. Control Equipment

Boilers #1 and #2 are equipped with low NOx burners and flue gas recirculation (FGR) to reduce NOx emissions.

5. Emission Limits

A listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits for each boiler can be found below.

Boilers #1 and #2 (Each)

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.05 lb/MMBtu (NG) 0.08 lb/MMBtu (distillate)	06-096 CMR 140, BPT	0.05 lb/MMBtu (NG) 0.08 lb/MMBtu (distillate)
	4.4 lb/hr (NG) 7.0 lb/hr (distillate)	06-096 CMR 140, BPT (A-452-70-B-A issued 4/16/03)	4.4 lb/hr (NG) 7.0 lb/hr (distillate)
PM_{10}	4.4 lb/hr (NG) 7.0 lb/hr (distillate)	06-096 CMR 140, BPT (A-452-70-B-A issued 4/16/03)	4.4 lb/hr (NG) 7.0 lb/hr (distillate)
SO_2	0.1 lb/hr (NG) 4.4 lb/hr (distillate)	06-096 CMR 140, BPT (based on 0.05% S content fuel)	0.1 lb/hr (NG) 4.4 lb/hr (distillate)
NOx	0.10 lb/MMBtu (NG) 0.20 lb/MMBtu (distillate)	06-096 CMR 140, BPT (A-452-70-B-A issued 4/16/03)	0.10 lb/MMBtu (NG) 0.20 lb/MMBtu (distillate)
	8.7 lb/hr (NG) 17.4 lb/hr (distillate)	06-096 CMR 140, BPT (A-452-70-B-A issued 4/16/03)	8.7 lb/hr (NG) 17.4 lb/hr (distillate)
CO	6.5 lb/hr (NG) 8.7 lb/hr (distillate)	06-096 CMR 140, BPT (A-452-70-B-A issued 4/16/03)	6.5 lb/hr (NG) 8.7 lb/hr (distillate)
VOC	0.4 lb/hr (NG) 0.9 lb/hr (distillate)	06-096 CMR 140, BPT (A-452-70-B-A issued 4/16/03)	0.4 lb/hr (NG) 0.9 lb/hr (distillate)
Visible Emissions	When firing distillate fuel, 20% opacity on a six (6) minute block average basis except for one (1) six (6) minute period per hour of not more than 27% opacity.	06-096 CMR 140, BPT (A-452-70-B-A issued 4/16/03) and 40 CFR Part 60 Subpart Dc	20% opacity on a six(6) minute block average basis except for one (1) six (6) minute period per hour of not more than 27% opacity.
	When firing natural gas, 10% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block period in a 3 hour period.	06-096 CMR 140, BPT	10% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block period in a 3 hour period.

Boilers #337-1, #337-2, #373-1, and #373-2 firing natural gas (Each)

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.05 lb/MMBtu	06-096 CMR 140, BPT (A-452-77-6-A issued 8/20/14)	0.05 lb/MMBtu
	0.13 lb/hr	06-096 CMR 140, BPT (A-452-77-6-A issued 8/20/14)	0.13 lb/hr

PM_{10}	0.13 lb/hr	06-096 CMR 140, BPT (A-452-77-6-A issued 8/20/14)	0.13 lb/hr
SO_2	0.01 lb/hr	06-096 CMR 140, BPT (A-452-77-6-A issued 8/20/14)	0.01 lb/hr
NOx	0.24 lb/hr	06-096 CMR 140, BPT (A-452-77-6-A issued 8/20/14)	0.24 lb/hr
CO	0.2 lb/hr	06-096 CMR 140, BPT (A-452-77-6-A issued 8/20/14)	0.2 lb/hr
VOC	0..01 lb/hr	06-096 CMR 140, BPT (A-452-77-6-A issued 8/20/14)	0.01 lb/hr
Visible Emissions	10% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block period in a 3 hour period.	06-096 CMR 140, BPT (A-452-77-6-A issued 8/20/14)	10% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block period in a 3 hour period.

Boilers #298 and 310 firing distillate fuel (Each)

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.10 lb/hr	0.08 lb/MMBtu based on 06-096 CMR 140, BPT	0.10 lb/hr
PM_{10}	0.10 lb/hr	0.08 lb/MMBtu based on 06-096 CMR 140, BPT	0.10 lb/hr
SO_2	0.07 lb/hr	based on firing ASTM D396 compliant #2 fuel oil (0.5% sulfur by weight)	0.07 lb/hr
NOx	0.19 lb/hr	20 lb/1000 gal based on AP-42, Table 1.3-1, dated 5/10	0.19 lb/hr
CO	0.05 lb/hr	5 lb/1000 gal based on AP-42, Table 1.3-1, dated 5/10	0.05 lb/hr
VOC	0.01 lb/hr	0.34 lb/1000 gal based on AP-42, Table 1.3-3, dated 5/10	0.01 lb/hr
Visible Emissions	20% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block period in a 3 hour period.	06-096 CMR 140, BPT	20% opacity on a six (6) minute block average basis except for no more than one (1) six (6) minute block period in a 3 hour period.

6. Emission Limit Compliance Methods

Compliance with the emission limits associated with the boilers shall be demonstrated in accordance with the appropriate test methods (or other methods or frequencies as approved by the Department) upon request of the Department as indicated in the table below:

Pollutant	Applicable Emission Limit	Compliance Method	Frequency
PM	lb/MMBtu lb/hr	40 CFR Part 60, App. A, Method 5	As requested
PM_{10}	lb/hr	40 CFR Part 60, App. A, Method 5 or EPA Test Method 201 or 201A	As requested
SO_2	lb/hr	40 CFR Part 60, App. A, Method 6	As requested
NOx	lb/hr	40 CFR Part 60, App. A, Method 7	As requested
CO	lb/hr	40 CFR Part 60, App. A, Method 10	As requested
VOC	lb/hr	40 CFR Part 60, App. A, Method 25 or 25A	As requested
Visible Emissions	opacity	40 CFR Part 60, App. A, Method 9	As requested

7. Periodic Monitoring

PNS shall monitor and record parameters for the boilers (Boiler #1, Boiler #2, HRSG #1, and HRSG #2) as indicated in the following table.

Boilers			
Parameter	**Units of Measure**	**Monitoring Tool/Method**	**Frequency**
Natural Gas fired	Standard Cubic Feet	Fuel Receipts Logbook	Monthly and 12-month rolling total
Distillate fuel fired	Gallons	Fuel Receipts Logbook	Monthly and 12-month rolling total
Maintenance Activity	---	Logbook	Maintain records documenting maintenance activities performed on the boiler

8. Parameter Monitors

There are no Parameter Monitors required for any of the boilers licensed at PNS.

9. Compliance Assurance Monitoring

Boilers #1 and #2 at PNS do have Flue Gas Recirculation to control NOx emissions, however, the boilers do not have a NOx potential to emit greater than 100 tons per year without this control. Therefore, PNS is not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM).

J. Furnace/Forge and Despatch Oven

PNS operates a Furnace/Forge and Despatch Oven for various needs at the Shipyard. These units were manufactured in 1940 and 1954 respectively. These units had been previously listed in the "Boiler" section of the air license, but since they are not boilers these units were removed from that section. The Despatch Oven located in Building 240 has multiple uses including:

- Pre Heating electric motors/rotors prior to varnish dipping
- Drying out the electric motors after they have been cleaned
- Curing the motors/rotors after they have been varnish dipped.

The Furnace/Forge located in Building 76 is used for heating up materials to be forged into parts, stress relief of parts that are welded and also for hardening, annealing and tempering of materials. These units are not considered "boilers" and therefore are not subject to 40 CFR Part 63 Subpart JJJJJJ.

Emissions shall not exceed the following:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Furnace/Forge	PM	0.20	06-096 CMR 103
Despatch Oven	PM	0.20	06-096 CMR 103

Emissions shall not exceed the following [06-096 CMR 140, BPT]:

Emission Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (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

K. Turbine Generators / HRSG

PNS operates two turbine generators designated as Turbine Generator #1 and Turbine Generator #2. The gas fired Turbine Generator #1 was licensed and installed in 2000 and Turbine Generator #2 was installed and licensed in 2003. Turbine Generator #1 uses only natural gas and Turbine Generator #2 uses natural gas as the primary fuel and uses distillate oil as the alternate fuel. The gas turbine generators are scheduled for engine replacement after approximately 35,000 hours

of operation. Turbine Generators #1 and #2 are currently GE model 60-7800S, any replacement engine for the turbines will continue to operate within the current size and licensed limits; also no increase in emission limits or fuel caps will result from these changes.

Emissions from each turbine generator and ancillary duct burner/Heat Recovery Steam Generator (HRSG) exit through stacks that are 167 feet above ground level (AGL) and each have a diameter of 5 feet.

1. New Source Performance Standards (NSPS)

Turbine Generators #1 and #2 are not defined as boilers and therefore are not subject to the New Source Performance Standards (NSPS) titled *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, 40 CFR Part 60, Subpart Dc. Although the Turbine Generators are not considered boilers, the ancillary HRSG are and therefore the next section will include the requirements of 40 CFR Part 60 Subpart Dc for the duct burners.

The turbines are subject to New Source Performance Standards (NSPS), 40 CFR Part 60, Subpart GG - Standards of Performance for Stationary Gas Turbines, for which construction is commenced after October 3, 1977.

40 CFR Part 60, Subpart GG establishes the following emission limits:
Pursuant to 40 CFR Part 60.333, SO_2 is limited to (a) 0.015% by volume @ 15% O_2 on a dry basis or (b) the fuel sulfur content shall not exceed 0.8% by weight.

Pursuant to 40 CFR Part 60.332(a)(2) NOx ppm concentration is limited based on the following equation:

$STD = 0.015*(14.4/Y) + F,$

where STD is the allowable NOx emissions concentration (percent by volume at 15% O_2 and on a dry basis), Y is a function of the manufacturer's rated load (kilojoules per watt hour), and F is a function of the fuel-bound nitrogen.

The NSPS, for turbines less than 100 MMBtu/hr capacity, establishes a nominal NOx emission limit for PNS of 150 ppmdv at 100% load. Subpart GG also limits the fuel sulfur content to no more than 0.8% by weight. While the NSPS does apply, the BPT is more stringent; compliance with BPT will insure compliance with the NSPS emission limits.

NSPS Requirements: The combustion turbine shall comply with all applicable requirements of 40 CFR 60, listed below. The Department determines that compliance with the BACT emissions performance requirements also assures

compliance with the NSPS for Subpart GG. Some separate reporting and monitoring may be required by these subparts.

(a) Subpart A, General Provisions, including:
- 40 CFR 60.7, Notification and Record Keeping
- 40 CFR 60.8, Performance Tests
- 40 CFR 60.11, Compliance with Standards and Maintenance
- 40 CFR 60.12, Circumvention
- 40 CFR 60.13, Monitoring Requirements
- 40 CFR 60.19, General Notification and Reporting Requirements

(b) Subpart GG, Standards of Performance for Stationary Gas Turbines: These provisions include standards for combustion gas turbines and duct burners.

40 CFR Part 60, Subpart Dc

The HRSG duct burner rated at 47.2 MMBtu/hr for Turbine Generator #1 and the 45.3 MMBtu/hr HRSG duct burner for Turbine Generators #2, are subject to the New Source Performance Standards (NSPS), *Standards of Performance for Small Industrial-Commercial Steam Generating Units*, 40 CFR Part 60, Subpart Dc. This subpart applies to steam generating units constructed after June 1989 with a maximum heat input between 10 and 100 MMBtu/hr. These units, when originally licensed in 2000 and 2003 respectively, were inadvertently stated as subject to NSPS 40 CFR Part 60, Subpart GG. This error has been corrected in this Part 70 air license renewal.

PNS shall comply with all requirements of 40 CFR Part 60, Subpart Dc applicable to the HRSGs including, but not limited to, the following:

a. PNS shall submit notification to EPA and the Department of the date of construction, anticipated start-up, and actual start-up. This notification includes the design heat input capacity of the boiler and the type of fuel to be combusted. [40 CFR §60.48c(a)]
b. PNS performed and submitted to EPA and the Department an initial performance test within 30 days after achieving the maximum production rate at which the facility will be operated but not later than 180 days after the initial start-up of the facility. The performance test consisted of fuel supplier certification of the sulfur content of the fuel fired in the HRSGs. The fuel supplier certification must contain the name of the oil supplier and a statement from the oil supplier that the oil complies with ASTM specifications for #2 fuel oil. [40 CFR §60.44c and 40 CFR §60.45c]
c. PNS shall record and maintain records of the amounts of each fuel combusted during each day or, if applicable, monthly records with fuel certifications. [40 CFR §60.48c(g)]
d. PNS shall submit to EPA and the Department semi-annual reports. These reports shall include the calendar dates covered in the reporting period and

records of fuel supplier certifications. The semi-annual reports are due within 30 days of the end of each 6-month period.

e. PNS shall meet the Compliance and Performance Test Methods, Emissions Monitoring, and Reporting and Recordkeeping requirements for Particulate Matter and Sulfur Dioxide as specified in 40 CFR Part 60 Subpart Dc.

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

Compliance Clerk
USEPA Region 1
5 Post Office Sq. Suite 100
Boston, MA 02109-3912

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

Since PNS is an area source for HAP, the HRSG duct burners are not subject to *NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters* for Major Sources: contained in 40 CFR Part 63, Subpart DDDDD.

The HRSG unit on Turbine Generator #2 is subject to *NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters* for Area Sources: contained in 40 CFR Part 63, Subpart JJJJJJ. This Subpart is not applicable to units firing only natural gas. Therefore the HRSG duct burner for Turbine Generator #1 is not subject.

A summary of the currently applicable federal 40 CFR Part 63, Subpart JJJJJJ requirements is listed below. HRSG for Turbine Generator #2 is considered an existing boiler. Notification forms and additional rule information can be found on the following website: www.epa.gov/ttn/atw/boiler/boilerpg.html.

a. Compliance Dates, Notifications, and Work Practice Requirements

i. Initial Notification of Compliance

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

ii. Boiler Tune-Up Program

(a) A boiler tune-up program was to be implemented to include the initial tune-up of applicable boilers no later than March 21, 2014. [40 CFR Part 63.11196(a)(1)]

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

1. As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted; not to exceed 72 months from the previous inspection for boilers with oxygen trim systems.[40 CFR Part 63.11223(b)(1) & (c)]

2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 CFR Part 63.11223(b)(2)]

3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted; 72 months from the previous inspection for boilers with oxygen trim systems. [40 CFR Part 63.11223(b)(3) & (c)]

4. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 CFR Part 63.11223(b)(4)]

5. Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 CFR Part 63.11223(b)(5)]

6. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 CFR Part 63.11223(b)(7)]

(c) The facility shall implement a boiler tune-up program after the initial tune-up and initial compliance report (called a Notification of Compliance Status) has been submitted.

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

Boiler Category	Tune-Up Frequency
New or Existing Oil, Biomass and Coal fired boilers that are not designated as "Boilers with less frequent tune up requirements" listed below	Every 2 years

New and Existing Oil, Biomass, and Coal fired Boilers with less frequent tune up requirements	
Boiler with oxygen trim system which maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune up	Every 5 years

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

2. The tune-up compliance report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the concentration of CO in the effluent stream (ppmv) and oxygen in volume percent, measured at high fire or typical operating load, before and after the boiler tune-up, a description of any corrective actions taken as part of the tune-up of the boiler, and the types and amounts of fuels used over the 12 months prior to the tune-up of the boiler. [40 CFR Part 63.11223(b)(6)]

   The compliance report shall also include the company name and address; a compliance statement signed by a responsible official certifying truth, accuracy, and completeness; and a description of any deviations and corrective actions. [40 CFR Part 63.11225(b)]

iii. Energy Assessment

HRSG for Turbine Generator #2 is subject to the energy assessment requirement as follows:

(a) A one-time energy assessment was required to be performed by a qualified energy assessor on the applicable boilers no later than March 21, 2014. [40 CFR Part 63.11196(a)(3)]

(b) The energy assessment shall include a visual inspection of the boiler system; an evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints; an inventory of major energy use systems consuming energy from affected boilers and which are under control of the boiler owner or operator; a review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage; a list of major energy conservation measures that are within the facility's control; a list of the energy savings potential of the energy conservation measures identified; and a comprehensive report detailing the ways to improve

efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.
[40 CFR Part 63, Table 2(16)]

(c) A Notification of Compliance Status was required to be submitted to EPA no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(c)]

b. Recordkeeping

Records shall be maintained consistent with the requirements of 40 CFR Part 63 Subpart JJJJJJ including the following [40 CFR Part 63.11225(c)]: copies of notifications and reports with supporting compliance documentation; 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; documentation of fuel type(s) used monthly by each boiler; the occurrence and duration of each malfunction of the boiler; and actions taken during periods of malfunction to minimize emissions and actions taken to restore the malfunctioning boiler to its usual manner of operation. Records shall be in a form suitable and readily available for expeditious review.

2. Control Equipment

There is no add-on pollution control equipment required for either Turbine Generator #1 or Turbine Generator #2 or its ancillary HRSG duct burners.

BPT for the Turbine Generators and HRSGs includes dry low NOx combustors including SOLONOx (dry low NOx combustors) burners, clean burn controls, and proper turbine design/operation to meet a NOx rate of 0.10 lb/MMBtu each on gas.

3. Emission Limits

A listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below.

Turbine Generator #1 and its HRSG duct burner (which only fire natural gas):

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.02 lb/MMBtu (turbine) 0.02 lb/MMBtu (duct burner)	06-096 CMR 140, BPT	0.02 lb/MMBtu (turbine) 0.02 lb/MMBtu (duct burner)
	1.3 lb/hr (turbine)	06-096 CMR 140, BPT	1.3 lb/hr (turbine)

	1.0 lb/hr (duct burner)	(A-452-70-A-I issued 3/1/00)	1.0 lb/hr (duct burner)
PM_{10}	1.3 lb/hr (turbine) 1.0 lb/hr (duct burner)	06-096 CMR 140, BPT (A-452-70-A-I issued 3/1/00)	1.3 lb/hr (turbine) 1.0 lb/hr (duct burner)
SO_2	0.4 lb/hr (turbine) 0.1 lb/hr (duct burner)	06-096 CMR 140, BPT (A-452-70-A-I issued 3/1/00)	0.4 lb/hr (turbine) 0.1 lb/hr (duct burner)
NOx	0.10 lb/MMBtu (turbine) 0.10 lb/MMBtu (duct burner) 6.7 lb/hr (turbine) 4.7 lb/hr (duct burner)	06-096 CMR 140, BPT (A-452-70-A-I issued 3/1/00)	0.10 lb/MMBtu (turbine) 0.10 lb/MMBtu (duct burner) 6.7 lb/hr (turbine) 4.7 lb/hr (duct burner)
CO	5.7 lb/hr (turbine) 3.8 lb/hr (duct burner)	06-096 CMR 140, BPT (A-452-70-A-I issued 3/1/00)	5.7 lb/hr (turbine) 3.8 lb/hr (duct burner)
VOC	2.4 lb/hr (turbine) 0.2 lb/hr (duct burner)	06-096 CMR 140, BPT (A-452-70-A-I issued 3/1/00)	0.4 lb/hr (turbine) 0.9 lb/hr (duct burner)
Visible Emissions	Visible emissions from any unit firing natural gas or propane shall not exceed an opacity of 10 percent on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 3 hour period.	06-096 CMR 101 is streamlined into 06-096 CMR 140, BPT	Visible emissions from the Turbine Generator #1 and HRSG shall not exceed an opacity of 10 percent on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 3 hour period.

Turbine Generator #2 and its HRSG duct burner (which fires natural gas with distillate oil as an alternative):

Pollutant	Applicable Emission Standards and Licensed Emission Limits	Origin and Authority
PM	0.02 lb/MMBtu (turbine generator firing natural gas) 0.02 lb/MMBtu (HRSG firing natural gas) 0.08 lb/MMBtu (turbine generator firing distillate) 0.12 lb/MMBtu (HRSG firing distillate)	06-096 CMR 140, BPT
	1.3 lb/hr (turbine generator firing natural gas) 0.9 lb/hr (HRSG firing natural gas) 5.0 lb/hr (turbine generator firing distillate) 5.4 lb/hr (HRSG firing distillate)	06-096 CMR 140, BPT (A-452-70-B-A issued 4/16/03)
PM_{10}	1.3 lb/hr (turbine generator firing natural gas) 0.9 lb/hr (HRSG firing natural gas) 5.0 lb/hr (turbine generator firing distillate) 5.4 lb/hr (HRSG firing distillate)	06-096 CMR 140, BPT (A-452-70-B-A issued 4/16/03)
SO_2	0.23 lb/hr (turbine generator firing natural gas) 0.1 lb/hr (HRSG firing natural gas) 3.2 lb/hr (turbine generator firing natural gas) 2.3 lb/hr (HRSG firing distillate)	06-096 CMR 140, BPT (A-452-70-B-A issued 4/16/03)

NOx	0.10 lb/MMBtu (turbine generator firing natural gas) 25 ppmdv corrected to 15% O_2 (turbine on NG) 0.10 lb/MMBtu (HRSG firing natural gas) 25 ppmdv corrected to 15% O_2 (HRSG firing NG) 0.40 lb/MMBtu (turbine generator firing distillate) 96 ppmdv corrected to 15% O2 (turbine on distillate) 0.20 lb/MMBtu (HRSG firing distillate) 6.7 lb/hr (turbine generator firing natural gas) 4.5 lb/hr (HRSG firing natural gas) 25.2 lb/hr (turbine generator firing distillate) 8.8 lb/hr (HRSG firing distillate)	06-096 CMR 140, BPT (A-452-70-B-A issued 4/16/03)
CO	5.7 lb/hr (turbine generator firing natural gas) 2.7 lb/hr (HRSG firing natural gas) 8.0 lb/hr (turbine generator firing distillate) 4.4 lb/hr (HRSG firing distillate)	06-096 CMR 140, BPT (A-452-70-B-A issued 4/16/03)
VOC	2.4 lb/hr (turbine generator firing natural gas) 0.3 lb/hr (HRSG firing natural gas) 2.3 lb/hr (turbine generator firing distillate) 0.5 lb/hr (HRSG firing distillate)	06-096 CMR 140, BPT (A-452-70-B-A issued 4/16/03)
Visible Emissions	Visible emissions from any unit firing distillate shall not exceed an opacity of 20 percent on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 3 hour period.	06-096 CMR 101 is streamlined into 06-096 CMR 140, BPT
	Visible emissions from any unit firing natural gas shall not exceed an opacity of 10 percent on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 3 hour period.	06-096 CMR 101 is streamlined into 06-096 CMR 140, BPT

4. Emission Limit Compliance Methods

Compliance with the emission limits associated with Turbine Generators #1 and #2 and HRSG duct burners shall be demonstrated in accordance with the appropriate test methods (or other methods or frequencies as approved by the Department) upon request of the Department as indicated in the table below:

Pollutant	**Applicable Emission Limit**	**Compliance Method**	**Frequency**
PM	lb/MMBtu lb/hr	40 CFR Part 60, App. A, Method 5	As requested
PM_{10}	lb/hr	40 CFR Part 60, App. A, Method 5 or EPA Test Method 201 or 201A	As requested
SO_2	lb/hr	40 CFR Part 60, App. A, Method 6	As requested
NOx	lb/hr	40 CFR Part 60, App. A, Method 7	As requested

CO	lb/hr	40 CFR Part 60, App. A, Method 10	As requested
VOC	lb/hr	40 CFR Part 60, App. A, Method 25 or 25A	As requested
Visible Emissions	opacity	40 CFR Part 60, App. A, Method 9	As requested

5. Periodic Monitoring

PNS shall monitor and record parameters for the Turbine Generators and HRSG duct burners as indicated in the following table.

Turbine Generators #1 and #2 and HRSGs			
Parameter	**Units of Measure**	**Monitoring Tool/Method**	**Frequency**
Natural Gas fired	Standard Cubic Feet	Fuel Receipts Logbook	Monthly and 12-month rolling total
Distillate fuel fired	Gallons	Fuel Receipts Logbook	Monthly and 12-month rolling total
Maintenance Activity	---	Logbook	Maintain records documenting maintenance activities performed on the boiler

6. Parameter Monitors

There are no Parameter Monitors required for the Turbine Generators and HRSG duct burners.

7. Compliance Assurance Monitoring

The Turbine Generators and HRSG duct burners at PNS have potential emissions for each criteria pollutant less than 100 tons per year and do not have add-on control equipment to reduce emissions, therefore, these units are not subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) (§64.2).

L. Emergency Generators and Fire Pumps

PNS operates several emergency generators and fire pumps of various sizes throughout the Shipyard. PNS is also licensed (per A-452-77-6-A issued 8/20/14) to rent/install six MUSE emergency generators on a temporary basis. PNS operates emergency diesel fired generators to provide back-up for various activities at the Shipyard.

1. New Source Performance Standards (NSPS)

The federal regulation 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)* is applicable to diesel engines ordered after July 11, 2005 and manufactured after April 1, 2006. The following engines were manufactured and installed after these dates. Therefore these units are subject to Subpart IIII.

Equipment	Maximum Heat Input Capacity (MMBtu/hr)	Mfr. Date
G09	6.0	2010
G10	1.6	2012
G11	0.7	2013
G12	3.1	2014
G13	1.9	2014
G14	3.9	2014
G15	0.5	2014
G16	1.9	2014
(6) MUSE generators (each)	9.0	2007
Fire Pump	1.1	2010
G20	2.51	2008

40 CFR Part 60, Subpart IIII

The federal regulation 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)* is applicable to the Emergency Stationary ICE listed above since the units were ordered after July 11, 2005 and manufactured after April 1, 2006.

a. Emergency Definition:
Emergency Stationary ICE means any stationary reciprocating internal combustion engine that meets all of the following criteria:

(1) The stationary ICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary ICE used to pump water in the case of fire or flood, etc. There is no time limit on the use of emergency stationary ICE in emergency situations.

(2) Paragraph (1) above notwithstanding, the emergency stationary ICE may be operated for any combination of the purposes specified below for a maximum of 100 hours per calendar year:

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

(ii) Emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Paragraphs (1) and (2) above notwithstanding, emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. These 50 hours are counted as part of the 100 hours per calendar year for maintenance checks and readiness testing, emergency demand response, and periods of voltage deviation or low frequency, as provided in paragraph (2) above.

The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity, except if the following conditions are met:

(i) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

(ii) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

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

(iv) The power is provided only to the facility itself or to support the local transmission and distribution system.

(v) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[40 CFR §60.4211(f) and §60.4219]

b. 40 CFR Part 60, Subpart IIII Requirements:

(1) Manufacturer Certification Requirement
The ICE shall be certified by the manufacturer as meeting the emission standards for new non-road compression ignition engines found in 40 CFR §60.4202. [40 CFR §60.4205(b)]

(2) Ultra-Low Sulfur Fuel Requirement
The fuel fired in the ICE 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 CFR §60.4207(b)]

(3) Non-Resettable Hour Meter Requirement
A non-resettable hour meter shall be installed and operated on each ICE [40 CFR §60.4209(a)]

(4) Operation and Maintenance Requirements
The ICE 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 CFR §60.4211(a)]

(5) Annual Time Limit for Maintenance and Testing
The ICE shall each be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity unless the conditions in §60.4211(f)(3)(i) are met). [40 CFR §60.4211(f)]

(6) Initial Notification Requirement
No initial notification is required for emergency engines. [40 CFR §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 hours spent for emergency operation, including what classified the operation as emergency and how many hours spent for non-emergency. If the generators are operated during a period of demand response or deviation from standard voltage or frequency, or to supply power during a non-emergency situation as part of a financial arrangement with another entity as specified in §60.4211(f)(3)(i), PNS shall keep records of the notification of the emergency situation, and the date, start time, and end time of generator operation for these purposes. [40 CFR §60.4214(b)]

(8) Annual Reporting Requirements for Demand Response Availability Over 15 Hours Per Year (for generators greater than 100 brake hp)
If PNS operates or is contractually obligated to be available for more than 15 hours per calendar year 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 as specified in §60.4211(f)(3)(i), the facility shall submit an annual report containing the information in §60.4214(d)(1)(i) through (vii). The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year. The annual report must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form is not available in CEDRI at the time that the report is due, the written report must be submitted to the following address:

Director, Office of Ecosystem Protection
U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, MA 02109-3912

[40 CFR §60.4214(d)]

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

The federal regulation 40 CFR Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines* is applicable to the following engines:

Equipment	Maximum Heat Input Capacity (MMBtu/hr)	Mfr. Date
G01	20	2003
G02	20	2003
G03	3.0	2005
G05	3.0	Pre 1990
G06	3.0	Pre 1990
G08	3.0	Pre 1990
G17	1.0	Pre-2000
G18	2.51	Pre-2000
G19	2.01	2004
G21	1.25	2003
G22	2.51	Pre-2000
G23	2.01	Pre-2000
G24	2.51	Pre-2000
G25	2.51	Pre-2000
Fire Pump 86A	1.23	1988
Fire Pump 132	0.90	1986
Fire Pump 136	0.87	1986
Fire Pump 306	0.74	1980
Fire Pump 341	0.90	1989
Fire Pump 343	1.56	1993

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

a. Emergency Definition:

Emergency stationary RICE means any stationary reciprocating internal combustion engine that meets all of the following criteria:

(1) The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include

stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc.

(2) Paragraph (1) above notwithstanding, the emergency stationary RICE may be operated for any combination of the purposes specified below for a maximum of 100 hours per calendar year:

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

(ii) Emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Paragraphs (1) and (2) above notwithstanding, emergency stationary RICE may be operated for up to 50 hours per calendar year in non-emergency situations. These 50 hours are counted as part of the 100 hours per calendar year for maintenance checks and readiness testing, emergency demand response, and periods of voltage deviation or low frequency, as provided in paragraph (2) above.

The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity, except provided in the following paragraphs:

(i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
(a)The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
(b) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
(c) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
(d) The power is provided only to the facility itself or to support the local transmission and distribution system.
(e) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

The engines shall be limited to the usage outlined in §63.6640(f) and therefore may be classified as existing emergency stationary RICE as defined in 40 CFR Part 63, Subpart ZZZZ. Failure to comply with all of the requirements listed in §63.6640(f) may cause these engines to not be considered emergency engines and therefore subject to all the requirements for non-emergency engines.

b. 40 CFR Part 63, Subpart ZZZZ Requirements:

	Compliance Dates	**Operating Limitations* (40 CFR §63.6603(a) and Table 2(d))**
G01, G02, G03, G05, G06, G08, G17, G18, G19, G21, G22, G23, G24, G25, FP86A, FP132, FP136, FP306, FP341, FP343	No later than May 3, 2013	- Change oil and filter every 500 hours of operation or annually, whichever comes first; - Inspect the air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary; and - Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

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

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

A non-resettable hour meter shall be installed and operated on each engine. [40 CFR §63.6625(f)]

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

The engines shall each be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity unless the conditions in §63.6640(f)(4)(ii) are met). [40 CFR §63.6640(f)]

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 hours spent for emergency operation, including what classified the operation as emergency and how many hours spent for non-emergency. If the engines are operated during a period of demand response or deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii), PNS must keep records of the notification of the emergency situation, and the date, start time, and end time of generator operation for these purposes. [40 CFR §63.6655(e) and (f)]

If PNS operates or is contractually obligated to be available for more than 15 hours per calendar year 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 as specified in §63.6640(f)(4)(ii), beginning January 1, 2015, the diesel fuel fired in the engines shall not exceed 15 ppm sulfur (0.0015%). Any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted. [40 CFR §63.6604(b)]

If PNS operates or is contractually obligated to be available for more than 15 hours per calendar year 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 as specified in §63.6640(f)(4)(ii), the facility shall submit an annual report containing the information in §63.6650(h)(1)(i) through (ix). The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year. The annual report must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form is not available in CEDRI at the time that the report is due, the written report must be submitted to the following address:

Director, Office of Ecosystem Protection
U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, MA 02109-3912

[40 CFR §63.6650(h)]

3. Emission Limits and Streamlining

A listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits for each engine can be found below.

G01 and G02

Pollutant	Applicable Emission Standard(s)	Origin and Authority	Licensed Emission Limit(s)
PM	0.12 lb/MMBtu	06-096 CMR 103	0.12 lb/MMBtu
	1.4 lb/hr	06-096 CMR 140, BPT	1.4 lb/hr
PM_{10}	1.4 lb/hr	06-096 CMR 140, BPT	1.4 lb/hr
SO_2	1.0 lb/MMBtu	06-096 CMR 140, BPT	1.0 lb/hr

NO_X	34.3 lb/hr	AP-42 Table 3.4-1 dated 10/96 (3.2 lb/MMBtu) & 06-096 CMR 140, BPT	34.3 lb/hr
CO	2.2 lb/hr	AP-42 Table 3.4-1 dated 10/96 (0.85 lb/MMBtu) & 06-096 CMR 140, BPT	2.2 lb/hr
VOC	0.8 lb/hr	AP-42 Table 3.4-1 dated 10/96 (0.09 lb/MMBtu) & 06-096 CMR 140, BPT	0.8 lb/hr
Visible Emissions	No greater than 20% opacity on a 6-min block avg, except for no more than two 6-min block avg in a 3-hr period	06-096 CMR 101	No greater than 20% opacity on a 6-min block avg, except for no more than two 6-min block avg in a 3-hr period

G03, G05, G06, G08, G09, G10, G11, G12, MUSE generators, G13, G14, G15, G16, and Fire Pump

Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Emergency Generator (G03)	0.4	0.4	0.2	13.2	2.9	1.1
Emergency Generator (G05)	0.4	0.4	0.2	13.2	2.9	1.1
Emergency Generator (G06)	0.7	0.7	0.1	26.5	5.7	2.1
Emergency Generator (G08)	0.4	0.4	0.2	13.2	2.9	1.1
Emergency Generator (G09)	0.7	0.7	0.1	12.2	15.1	1.7
Emergency Generator (G10)	0.1	0.1	0.1	3.1	1.2	0.4
Emergency Generator (G11)	0.1	0.1	0.1	1.2	0.7	0.2
Emergency Generator (G12)	0.3	0.3	0.1	6.1	3.3	0.9
Emergency MUSE generators (each at ~900 kW)	0.4	0.4	0.2	18.2	6.9	2.6
Emergency Generator (G13)	0.1	0.1	0.1	3.6	1.4	0.5
Emergency Generator (G14)	0.2	0.2	0.1	7.1	2.7	1.0
Emergency Generator (G15)	0.1	0.1	0.1	0.8	0.5	0.1
Emergency Generator (G16)	0.1	0.1	0.1	3.6	1.4	0.5

Fire Pump	0.1	0.1	0.1	4.9	1.1	0.4

* The newly listed emergency generators (G17, G18, G19, G21, G22, G23, G24, G25, and additional fire pumps) that were considered "insignificant activities" in previous licensing actions, will meet the applicable federal and state regulations (specifically including 40 CFR Part 63, Subpart ZZZZ and 06-096 CMR 101), however, these relatively small units will not have licensed short term lb/hr emission limits.

Origin and Authority of applicable Emission Standards for above generators and fire pumps:

Pollutant	Applicable Emission Standard(s)	Origin and Authority
PM	lb/MMBtu	06-096 CMR 103
	lb/hr	06-096 CMR 140, BPT and/or NSR air license
PM_{10}	lb/hr	06-096 CMR 140, BPT
SO_2	lb/hr	Based on 0.0015% S content by weight fuel.
NO_X	lb/hr	AP-42 Table 3.3-1 dated 10/96 (4.41 lb/MMBtu) & 06-096 CMR 140, BPT and/or NSR air license.
CO	lb/hr	AP-42 Table 3.3-1 dated 10/96 (0.95 lb/MMBtu) & 06-096 CMR 140, BPT and/or NSR air license.
VOC	lb/hr	AP-42 Table 3.3-1 dated 10/96 (0.36 lb/MMBtu) & 06-096 CMR 140, BPT and/or NSR air license.
Visible Emissions	No greater than 20% opacity on a 6-min block avg, except for no more than two 6-min block avg in a 3-hr period	06-096 CMR 101 and NSR air license

Table Notes: % S = percent fuel sulfur, by weight

4. Emission Limit Compliance Methods

Compliance with the emission limits associated with emergency generators, MUSE generators, and Fire Pumps shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

5. Compliance Assurance Monitoring

CAM is not applicable to the emergency generators, MUSE generators, and Fire Pumps.

6. Periodic Monitoring

PNS shall monitor and record parameters for all emergency generators and Fire Pumps as indicated in the following table whenever the equipment is operating.

Parameter	Units of Measure	Monitoring Tool/Method	Frequency
fuel oil sulfur content	Percent, by weight	Fuel receipts from supplier	As fuel is purchased
Operating time	Hours	Hour Meter	Monthly and 12-month calendar year total

BPT is met through good combustion practices, computerized controls, and maintaining a log to demonstrate compliance with the 100 hours per calendar year operation for non-emergency use for each unit. Fuel receipts shall be kept to demonstrate compliance with the sulfur content.

7. CEMS and COMS

There are no CEMS or COMS required for the emergency generators, MUSE generators, and Fire Pumps.

M. Painting and Coating Operations

PNS conducts painting and coating operations while overhauling and performing maintenance for the submarines at the base. The following summary of regulatory requirements applies to the coating and painting areas of the shipyard. PNS is subject to the following summary of regulatory requirements.

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

PNS is restricted to a federally enforceable emission limit of 10 tons per year of any single HAP and 25 tons per year of total HAPs. The MACT standard 40 CFR Part 63, Subpart II is applicable to Major Sources of HAP and therefore does not apply to PNS operations. This federal regulation (40 CFR Part 63, Subpart II) will be included in the Permit Shield located in Standard Statement (6) of the Order section of this license.

2. 06-096 CMR 134 (VOC RACT)

06-096 CMR 134 of the Department regulations requires facilities that have the potential to emit forty (40) tons or more of VOC per calendar year to apply VOC RACT (Reasonable Available Control Technology) to their applicable VOC emissions. PNS has a source specific RACT determination for volatile

organic compounds. PNS proposed to the Department a VOC emission rate from non-exempt sources of 48 tons per year as a facility-wide emission limitation. PNS has implemented good housekeeping practices and has implemented reformulated coatings. 06-096 CMR 134 VOC RACT requirements are incorporated into this Part 70 license renewal.

The total non-exempt fugitive VOC emissions (not including VOC emissions from degreasing operations) from the Portsmouth Naval Shipyard shall not exceed 48 tons per year based on a 12-month rolling total updated monthly and shall not exceed 15 tons during any one calendar month, where:

- In 2013 the HSMS tracking system, approved by the Department on July 11, 1997 was replaced with an equivalent system, Hazardous Material Management System (HMMS). HMMS is used to track hazardous materials, VOC, and HAP emissions. PNS may create an equivalent system, approved by the Department, to track VOC and HAP emissions.
- HMMS shall provide VOC and HAP emissions using calculation methods equivalent to those described in Enclosure (1) of the July 11, 1997 letter, for HSMS. To summarize, whenever HM is used in HMMS, a transaction is performed in HMMS identifying the material, quantity used, and the process code the material is assigned to. HMMS then applies an algorithm associated with the process code to calculate emissions for the chemical constituents within the product identified as VOCs/HAPs. A report generator is then used to summarize the amount of each VOC/HAP, by CAS number, that was released as point and non-point emissions.

3. 06-096 CMR129

The Coating operations are subject to 06-096 CMR 129 of the Department's regulations. 06-096 CMR 129 states that "only Section 10 of 06-096 CMR 129 apply to Shipbuilding and Ship Repair". Section 10 of 06-096 CMR 129 incorporates by reference the requirements of the Shipbuilding MACT 40 CFR Part 63, Subpart II (National Emission Standards for Hazardous Air Pollutants for Shipbuilding and Ship Repair (Surface Coating) Operations". PNS is not subject to the Shipbuilding MACT due to their federally enforceable emission limit of 10 tons per year of any individual HAP and 25 tpy of total HAP. However, PNS being an "area" source, will meet the requirements set forth in EPA's Shipbuilding Control Technique Guidance, which are similar to the requirements of the Shipbuilding MACT.

4. Control Equipment

PNS does not control VOC or HAP because add-on pollution control when dealing with the relatively low VOC concentrations in relatively large volumes

of air has been determined not to be technically or economically feasible. However, PNS does operate filters to limit PM emission from the paint booth areas.

5. Emission Limits and Periodic Monitoring

PNS shall use the HMMS tracking system, or equivalent system approved by the Department, as noted above. The system tracks hazardous material issuance and use, and quantifies VOC emissions by material balance. PNS shall meet the following Volatile Organic Hazardous Air Pollutants (VOHAP) limits for Marine Coatings:

	VOHAP limits *abc*		
Coating Categories	**Grams/liter coating (minus water and exempt compounds)**	**Grams/liter solids temp ≥ 4.5°C**	**Grams/liter solids temp < 4.5°C** *d*
General Use	340	571	728
Specialty Air Flask	340	571	728
Antenna	530	1,439	
Antifoulant	400	765	971
Heat resistant	420	841	1,069
High-gloss	420	841	1,069
High-temperature	500	1,237	1,597
Inorganic zinc high build	340	571	728
Military exterior	340	571	728
Mist	610	2,235	---
Navigational aids	550	1,597	---
Nonskid	340	571	728
Nuclear	420	841	1,069
Organic zinc	360	630	802
Pretreatment wash primer	780	11,095	---
Repair and maint. of thermoplastics	550	1,597	---
Rubber camouflage	340	571	728
Sealant for thermal spray aluminum	610	2,235	---
Special marking	490	1.178	---
Specialty interior	340	571	728
Tack coat	610	2,235	---
Undersea weapons systems	340	571	728
Weld-through primer	650	2,885	---

a. The limits are expressed in two sets of equivalent units. Either set of limits may be used for the compliance procedure described in 63.785(c)(1) of the "National Emission Standards for Hazardous Air Pollutants for Shipbuilding and Ship Repair Operations", but only the limits expressed in units of g/l solids (nonvolatile) shall be used for the compliance procedures described in 63.785(c)(2) through (4).

b. VOC (including exempt compounds listed as HAP) shall be used as a surrogate for VOHAP for those compliance procedures described in 63.785(c)(1) through (3).

c. To convert from g/l to lb/gal, multiply by (3.785 liters/gal)(1/453.6 grams/lb) or 1/120.

d. These limits apply during cold-weather time periods, as defined in 63.782. Cold-weather allowances are not given to coatings in categories that permit over a 40 percent VOHAP content by volume. Such coatings are subject to the same limits regardless of weather conditions.

1. PNS may use up to fifty gallons of any combination of coatings which exceed the VOC emission limitation of the above table during any twelve consecutive month period.
2. In the event that small amounts of specialty coating with a higher VOC content than is allowed is needed, then emissions averaging over a 30 day period will be allowed to provide flexibility. When using the emissions averaging, PNS must show compliance by averaging actual daily emissions over the 30 day period.

N. Abrasive Blasting and Containment Structures

PNS does abrasive blasting and spray painting. These operations (excluding aerosol spray can painting) take place in containments such as removable submarine covers, sandblast booths, paint booths, large fabricated enclosures, etc. The Shipyard performs abrasive blasting mostly to support coating operations. Emissions from sandblast booths or paint booths vent through air filters or bag houses/other type of equivalent dust collection system (filter systems).

The filter systems are used to control Particulate Matter (PM) emissions and are operated with a gauge to monitor the pressure drop across the filters. The air filters do not have pressure drop readings. The filter systems are operated with a pressure drop within manufacturers' recommendations. The Shipyard performs monthly inspections of the filter systems to ensure there is no damage that would allow excess emissions. Monthly inspections are required only when the filter systems are in use.

Whenever opacity compliance testing is required, USEPA Method 9 shall be used. When approved in writing an equivalent test method may be substituted for the required test method.

Abrasive Blast Cabinets (Glovebox). The Shipyard has a number of Glovebox units. These units are a dry abrasive blasting process, designed to replace chemical paint stripping operations and conventional sand blasting. The Glovebox is a direct-pressure, blast-cleaning cabinet with manually controlled nozzles through which blast media, fluidized with compressed air, is projected. The Glovebox is designed to enable the operator to work through the glove ports and manually direct the abrasive blast against the work piece. The blast action can be observed through a window. Filtration systems minimize any fugitive emissions from the process. Shipyard units can exhaust indoors or outside after filtration (i.e., bag filter). The Glovebox units that vent indoors are considered insignificant/exempt based on 06-096 CMR 140 (Appendix B, Section A, #58) because "a. activity is performed indoors; and b. no fugitive particulate emissions

enter the environment," therefore no monthly inspections are required for these units.

O. Woodworking Activities

PNS's woodworking activities have historically been included in the Air license but have been determined to be insignificant due to potential to emit per 06-096 CMR 140, Appendix B.B.1.

P. Water Evaporator

The steam driven water evaporator was licensed through NSR A-452-77-1-M issued November 24, 2008. The evaporator has a maximum capacity to evaporate 28 gallons of water per hour and will use 200 pound steam from the licensed PNS steam generating units to achieve the temperatures needed to evaporate water. The pollutant of concern is the slight amount of tritium that could be released; therefore a thorough analysis of the maximum quantity was needed. It was estimated that this water evaporation unit would result in a release of 9.08×10^{-7} lbs/year of tritium, at the conservative evaporation rate of 28 gal/hour.

1. Federal Requirements

40 CFR 61, Subpart I, "National Emission Standards for Radionuclide Emissions from Federal Facilities other than the Nuclear Regulatory Commission Licensees and Not Covered by Subpart H". This subpart applies to facilities owned or operated by any Federal agency other than the Department of Energy and not licensed by the Nuclear Regulatory Commission. The Shipyard is not a major source of Hazardous Air Pollutants (HAPs) because it is limited to 25 tons/year of total HAPs and 10 tons/year for each individual HAP, however it is subject to 40 CFR 61, Subpart I.

According to 40 CFR 61.106, "An application under 61.07 does not need to be filed for any new construction of or modification within an existing facility if the following condition is met. The effective dose equivalent calculated by using methods described in 61.103, that is caused by all emissions from the new construction or modification, is less than 1% of the limit prescribed in 61.102." The effective dose equivalent was calculated by the Shipyard based on the potential to emit 24 hours/day, 365 days/year, for the proposed new construction. The calculated exposure is estimated to be less than 1% of the limit prescribed in section 61.102. Therefore, according to section 61.106, PNS does not need to submit an application to construct or modify per the federal regulations. However, since the evaporator will emit more than 0 lbs/year of a radionuclide, it is subject to the Department's minor revision requirements.

2. Reporting Requirements

Facilities emitting radionuclides in an amount that would cause less than 10% of the dose standard in 40 CFR 61.102 are exempt from the reporting requirements of 40 CFR 61.104. In accordance with 40 CFR 61.104(b), PNS annually determines whether it is exempt from reporting. Thus far it has always been determined that PNS is exempt and it is anticipated to maintain that status after the proposed new construction is in place, however that determination will be made annually as required by 40 CFR 61.104(a).

PNS demonstrates that the unit is below emission limits and meets reporting compliance with 40 CFR 61, Subpart I by using alternative procedures approved by the EPA, as documented in a letter to the Department of the Navy from the EPA dated October 1997. This calculation method is described in Attachment 3 of the September 2008 application submittal, which is the current PNS practice for reporting all radionuclide emissions. Emissions of radionuclides, including iodine, are limited by 40 CFR 61.102 to those levels that would cause any member of the public to receive in any year an effective dose equivalent of 10 mrem/year. Emissions of iodine shall not exceed those amounts that would cause any member of the public to receive in any year an effective dose equivalent of 3 mrem/year. PNS will demonstrate compliance using the approved computer model COMPLY.

By meeting the emission and reporting requirements of Subpart I, PNS meets BPT per this license renewal.

3. MACT Emission Limitations, 40 CFR 63

The evaporator is not subject to any MACT standard that has been promulgated to date.

Q. Radionuclides

Facilities emitting radionuclides in any amount that would cause less than 10% of the dose standard in 40 Code of Federal Regulations (CFR) 61.102 are exempt from the reporting requirements of 40 CFR 61.104. In accordance with 40 CFR 61.104(b), the Shipyard annually determines whether it is exempt from reporting. Thus far it has always been determined that the Shipyard is exempt and it is anticipated to maintain that status, however that determination will be made annually as required by 40 CFR 61.104(a).

1. Below is a list of existing emission sources of radionuclides at the Shipyard.

Description	Unit	Comment
Radiological Repair Facility (Building 291)	Ventilation systems	None
Submarine Engine Room and Reactor Compartment monitored ventilation (Dry Dock #1)	Portable ventilation systems	None
Submarine Engine Room and Reactor Compartment monitored ventilation (Dry Dock #2)	Portable ventilation systems	None
Submarine Engine Room and Reactor Compartment monitored ventilation (Dry Dock #3)	Portable ventilation systems	None
Temporary engineering spaces exhausts	Unavailable	None
Portable radioactive fluid collection tanks	Unavailable	None
Refueling Complex Facility (Dry Dock #2)	Building ventilation systems	None
Water Evaporation Unit Ventilation	Evaporator	New Source Review license, A-452-77-1-M (issued 11/24/08)
Refueling Complex Facility (Dry Dock #2) M-140 Addition	Building ventilation system	New Source Review license, A-452-77-2-M (issued 7/12/10)

2. Federal Requirements

40 CFR 61, Subpart I, "National Emission Standards for Radionuclide Emissions from Federal Facilities other than the Nuclear Regulatory Commission Licensees and Not Covered by Subpart H". This subpart applies to facilities owned or operated by any Federal agency other than the Department of Energy and not licensed by the Nuclear Regulatory Commission. The Shipyard is not a major source of Hazardous Air Pollutants (HAPs) because it is limited to 25 tons/year of total HAPs and 10 tons/year for each individual HAP, however it is subject to 40 CFR 61, Subpart I.

According to 40 CFR 61.106, "An application under §61.07 does not need to be filed for any new construction of or modification within an existing facility if one of the following conditions is met: (1) The effective dose equivalent calculated by using methods described in §61.103, that is caused by all emissions from the facility including those potentially emitted by the proposed new construction or modification, is less than 10 percent of the standard prescribed in §61.102, or (2) The effective dose equivalent calculated by using methods described in 61.103, that is caused by all emissions from the new construction or modification, is less than 1% of the limit prescribed in 61.102."

3. Reporting and Testing Requirements

The Shipyard will continue to demonstrate that radionuclide sources are below emission limits and meet the reporting requirements of 40 CFR 61, Subpart I by using alternative procedures approved by the Environmental Protection Agency (EPA), as documented in a letter to the Department of the Navy from the EPA dated October 1997. Emissions of radionuclides are limited by 40 CFR 61.102 to those levels that would cause any member of the public to receive in any year an effective dose equivalent of 10 mrem/year. The Shipyard will demonstrate compliance using the approved computer model COMPLY Code – V1.6.

By meeting the emission testing and reporting requirements of Subpart I, the Shipyard meets BPT.

4. BPT Summary

Existing radionuclide emission sources shall meet the emissions testing and reporting requirements of 40 CFR 61 Subpart I. In order to provide flexibility and to minimize license modifications/revisions, the Shipyard is allowed new construction of or modification of radionuclide sources within the facility if the following conditions are met:

- The effective dose equivalent calculated by using methods described in §61.103, that is caused by all emissions from the facility including those potentially emitted by the proposed new construction or modification, is less than 10 percent of the standard prescribed in §61.102, or

- The effective dose equivalent calculated by using methods described in 61.103, that is caused by all emissions from the new construction or modification, is less than 1% of the limit prescribed in 61.102, and

- To meet BPT, the Shipyard shall meet the emission testing and reporting requirements of 40 CFR Part 61 Subpart I.

R. Gasoline Storage Tanks

The Gasoline Storage Tanks and dispensing operations shall meet the requirements of 06-096 CMR 118:

1. The fill pipe shall extend within 6 inches of the bottom of the gasoline storage tank.
2. The licensee shall maintain records of the monthly and annual throughput of gasoline.

S. Parts Washers

PNS operates several parts washers/cleaners that are installed throughout the Shipyard and maintained by a vendor. The vendor cleans and maintains the units on a quarterly basis. Records are maintained of all the solvent added. The Shipyard is allowed to add or remove parts washers without requiring license modifications as long as all these units are operated in accordance with the requirements set forth in 06-096 CMR 130 *Solvent Degreasers* (as amended).

Periodic monitoring for the parts washers shall consist of recordkeeping including records of solvent added and removed.

T. Facility Annual Emissions and Fuel Use Cap

1. Total Annual Emissions

PNS shall not exceed a maximum firing of 2.26 billion cubic feet of natural gas and 4,900,000 gallons of distillate oil, with a maximum sulfur content of 0.05% by weight, per year based on a 12 month rolling total facility wide. In case of an emergency, these facility-wide fuel limits may be adjusted. Based on allowable fuel use in the combustion sources and allowable emissions from the processes at PNS, total facility emissions are limited to the following:

Total Licensed Allowed Annual Emissions for the Facility
(used to calculate the annual license fee)

Equipment	PM	PM_{10}	SO_2	NO_X	CO	VOC
Small boilers (<10 MMBtu/hr)	4.7	4.7	18.4	13.6	1.3	0.3
Emergency Generators and Fire Pumps	0.8	0.8	0.1	27.2	5.9	0.7
Turbine Generator #1 and Duct Burner	8.3	8.3	2.7	37.9	28.4	1.5
Turbine Generator #2 and Duct Burner	8.9	8.9	7.6	69.2	39.7	11.2
Boilers #1 & #2	8.3	8.3	11.1	29.6	46.3	2.4
Process VOC emissions	--	--	--	--	--	48
TOTALS (TPY)	**31.0**	**31.0**	**39.9**	**177.5**	**121.6**	**64.1**

Pollutant	Tons/year
Single HAP	<10
Total HAP	<25

2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans,* 40 CFR Part 52, Subpart A, §52.21 Prevention of Significant Deterioration of Air Quality rule. Greenhouse gases, as defined in 06-096 CMR 100 (as amended), are the aggregate group of the following gases: Carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO_2e).

The quantity of CO_2e emissions from this facility is less than 100,000 tons per year, based on the following:

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

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

III. AMBIENT AIR QUALITY ANALYSIS

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.

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 A-452-70-D-R/A pursuant to 06-096 CMR 140 and the preconstruction permitting requirements of 06-096 CMR 115 and subject to the standard and specific conditions below.

All federally enforceable and State-only enforceable conditions in existing air licenses previously issued to PNS pursuant to the Department's preconstruction permitting requirements in 06-096 CMR 108 or 115 have been incorporated into this Part 70 license,

except for such conditions that the Department has determined are obsolete, extraneous or otherwise environmentally insignificant, as explained in the findings of fact accompanying this permit. As such, the conditions in this license supersede all previously issued air license conditions.

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

For each standard and 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, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD STATEMENTS

(1) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both; [06-096 CMR 140]

(2) The Part 70 license does not convey any property rights of any sort, or any exclusive privilege; [06-096 CMR 140]

(3) All terms and conditions are enforceable by EPA and citizens under the CAA unless specifically designated as state enforceable. [06-096 CMR 140]

(4) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license; [06-096 CMR 140]

(5) Notwithstanding any other provision in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 140]

(6) Compliance with the conditions of this Part 70 license shall be deemed compliance with any Applicable requirement as of the date of license issuance and is deemed a permit shield, provided that:

A. Such Applicable and state requirements are included and are specifically identified in the Part 70 license, except where the Part 70 license term or condition is specifically identified as not having a permit shield; or
B. The Department, in acting on the Part 70 license application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the Part 70 license includes the determination or a concise summary, thereof.

Nothing in this section or any Part 70 license shall alter or affect the provisions of Section 303 of the CAA (emergency orders), including the authority of EPA under Section 303; the liability of an owner or operator of a source for any violation of Applicable requirements prior to or at the time of permit issuance; or the ability of EPA to obtain information from a source pursuant to Section 114 of the CAA.

The following requirements have been specifically identified as not applicable based upon information submitted by the licensee in an application dated July 2010.

Standard	Program:	Reason Why Not Applicable to the Portsmouth Naval Shipyard
National Emission Standards for Hazardous Air Pollutants 40 CFR Part 61	Subpart V. Equipment Leaks (Fugitive Emission Sources)	Subpart is applicable to pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, flanges, and other connectors, vessels, and control devices that operate in volatile hazardous air pollutant (VOHAP) service. VOHAP includes only Benzene and Vinyl Chloride. No equipment using benzene or vinyl chloride is in service at PNS.
Standards of Performance for New Stationary Sources 40 CFR Part 60	Subpart D Fossil Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971	Applicable to fossil fuel fired steam generating units with maximum heat input rates greater than 250 MMBtu/hr. Portsmouth Naval Shipyard has no boilers with a total heat input of 250 MMBtu/hr. Therefore, the standard is not applicable.
	Subpart Da Electric Utility Steam Generation Units for Which Construction is Commenced After September 1978.	No affected units or facilities.
	Subpart Db Industrial-Commercial Steam Generating Units	Applicable to steam generating units that commenced Construction, modification, or reconstruction after June 19, 1984 with maximum heat input rates greater than 100 MMBtu/hr. All PNS boilers have maximum heat input Design capacities less than 100 MMBtu/hr.
Standards of Performance for New Stationary Sources 40 CFR Part 60	Subpart K Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 1978	No affected units or facilities. Definition of petroleum liquids exempts #2 and #6 fuel oils.
	Subpart Ka Storage Vessels for Petroleum Liquid for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984	No affected units or facilities. Definition of petroleum liquids exempts #2 and #6 fuel oils.
	Subpart Kb Storage Vessels for Volatile Organic Liquids for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984	Applicable to Volatile Organic Liquid storage tanks with a capacity greater than or equal to 40 cubic meters (10,567 gal) that were constructed, modified or reconstructed after July 23, 1984. PNS does not have any tanks constructed after 7/23/84. Standard is not applicable.

National Emission Standards for Hazardous Air Pollutants 40 CFR Part 63	Subpart II Shipbuilding and ship repair (surface coating) facilities which are major sources of HAPs are required to control emissions using the maximum achievable c technology (MACT). Subpart XXXXXX NESHAP for Nine Metal Fabrication and Finishing Source Categories.	PNS is not a major source of HAPs. The facility has total potential HAP emissions of approximately 13 tpy and all individual potential HAP emissions are below the 10 tpy threshold. PNS is not primarily engaged with this activity, therefore, this rule does not apply to PNS based on the definition of "primarily engaged" in 63.11522
Chemical Accident Prevention 40 CFR 68	Chemical Accident Prevention Provisions	The need for a Risk Management Plan has been evaluated and PNS does not exceed applicable thresholds.

Section Title/Description (State Regulations)	**Comment**
(06-096 CMR 104) Incinerator Particulate Emission Standard This regulation establishes a limitation on the amount of particulate matter allowed to be emitted from each of several categories and sizes of incinerators and a limitation on the opacity of emissions from all incinerators.	Portsmouth Naval Shipyard has no incinerators and therefore this regulation is not applicable.
(06-096 CMR 111). Petroleum Liquid Storage Vapor Control This regulation requires all owners of fixed roof storage tanks with capacities greater than 39,000 gallons, storing gasoline, crude oil or any petroleum liquid whose vapor pressure is greater than 1.0 psia to install floating roofs to reduce the hydrocarbon vapors lost to the atmosphere.	Portsmouth Naval Shipyard does not have any volatile petroleum liquids with vapor pressure greater than 1.0 psia stored in fixed roof storage vessels with capacities greater than 39,000 gallons.
(06-096 CMR 112). Bulk Terminal Petroleum Liquid Transfer Requirements This regulation requires bulk gasoline terminals loading tank trucks or trailers and who dispense 20,000 gallons or more of gasoline per day to install a vapor control system and requires tank truck tightness certification. This system must control gasoline vapors so that not more than 35 milligrams of vapor escapes for each liter of gasoline transferred.	*Bulk gasoline terminal* means a gasoline storage facility which receives gasoline from refineries...and delivers gasoline to bulk gasoline plants...and has a daily throughput of more than 20,000 gallons of gasoline." [06-096 CMR 100]. PNS is not a bulk gasoline terminal and is therefore not applicable.
(06-096 CMR 117) Source Surveillance This regulation specifies which air emission sources are required to operate (CEMS).	PNS fires primarily natural gas in the boilers and turbine generators and is therefore not required to install continuous opacity monitors per 06-096 CMR 117. PNS does not operate any fuel burning equipment greater than 200 MMBtu/hr, therefore, NOx CEMs is not required.

[06-096 CMR 140]

(7) The Part 70 license shall be reopened for cause by the Department or EPA, prior to the expiration of the Part 70 license, if:

A. Additional Applicable requirements under the CAA become applicable to a Part 70 major source with a remaining Part 70 license term of 3 or more years. However, no opening is required if the effective date of the requirement is later than the date on which the Part 70 license is due to expire, unless the original

Part 70 license or any of its terms and conditions has been extended pursuant to 06-096 CMR 140;

B. Additional requirements (including excess emissions requirements) become applicable to a Title IV source under the acid rain program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the Part 70 license;

C. The Department or EPA determines that the Part 70 license contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Part 70 license; or

D. The Department or EPA determines that the Part 70 license must be revised or revoked to assure compliance with the Applicable requirements.

The licensee shall furnish to the Department within a reasonable time any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the Part 70 license or to determine compliance with the Part 70 license.
[06-096 CMR 140]

(8) No license revision or amendment shall be required, under any approved economic incentives, marketable licenses, emissions trading and other similar programs or processes for changes that are provided for in the Part 70 license. [06-096 CMR 140]

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 and this license (38 M.R.S.A. §347-C).

(2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 140. [06-096 CMR 140]

(3) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 140]
Enforceable by State-only

(4) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to 38 M.R.S.A. §353-A.

(5) The licensee shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 140]
Enforceable by State-only

(6) The licensee shall retain records of all required monitoring data and support information for a period of at least six (6) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Part 70 license. The records shall be submitted to the Department upon written request or in accordance with other provisions of this license. [06-096 CMR 140]

(7) The licensee shall comply with all terms and conditions of the air emission license. The submission of notice of intent to reopen for cause by the Department, 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 the renewal of a Part 70 license or amendment shall not stay any condition of the Part 70 license. [06-096 CMR 140]

(8) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:

A. Perform stack testing 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;

2. To demonstrate compliance with the applicable emission standards; or

3. Pursuant to any other requirement of this license to perform stack testing.

B. Install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

C. Submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 CMR 140]

Enforceable by State-only

(9) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicates emissions in excess of the applicable standards, then:

A. Within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

B. The days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

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

[06-096 CMR 140]

Enforceable by State-only

(10) The licensee shall maintain records of all deviations from license requirements. Such deviations shall include, but are not limited to malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emission unit itself that is not consistent with the terms and conditions of the air emission license.

A. The licensee shall notify the Commissioner within 48 hours of a violation of any emission standard and/or a malfunction or breakdown in any component part that causes a violation of any emission standard, and shall report the probable cause, corrective action, and any excess emissions in the units of the applicable emission limitation;

B. The licensee shall submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component part causes a violation of any emission standard, together with any exemption requests.

Pursuant to 38 M.R.S.A. § 349(9), the Commissioner may exempt from civil penalty an air emission in excess of license limitations if the emission occurs during start-up or shutdown or results exclusively from an unavoidable malfunction entirely beyond the control of the licensee and the licensee has taken all reasonable steps to minimize or prevent any emission and takes corrective action as soon as possible. There may be no exemption if the malfunction is caused, entirely or in part, by poor maintenance, careless operation, poor design or any other reasonably preventable condition or preventable equipment breakdown. The burden of proof is on the licensee seeking the exemption under this subsection.

C. All other deviations shall be reported to the Department in the facility's semiannual report.

[06-096 CMR 140]

(11) Upon the written request of 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 manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 140]

(12) The licensee shall submit semiannual reports of any required periodic monitoring. All instances of deviations from Part 70 license requirements must be clearly identified in such reports. All required reports must be certified by a responsible official. [06-096 CMR 140]

(13) The licensee shall submit a compliance certification to the Department and EPA at least annually, or more frequently if specified in the applicable requirement or by the Department. The compliance certification shall include the following:

A. The identification of each term or condition of the Part 70 license that is the basis of the certification;

B. The compliance status;

C. Whether compliance was continuous or intermittent;

D. The method(s) used for determining the compliance status of the source, currently and over the reporting period; and

E. Such other facts as the Department may require to determine the compliance status of the source.

[06-096 CMR 140]

SPECIFIC CONDITIONS

(14) **Fuel Burning Equipment (Boilers, Furnaces, Ovens):**
[06-096 CMR 140, BPT & Air License Amendment A-452-70-B-A issued 4/16/03]

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

B. Allowable Fuels
1. 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, and the Despatch Oven fire only natural gas
2. PNS shall maintain records of the quantity of fuel consumed on a monthly and 12-month rolling total basis.

Fuel Sulfur Content
1. Distillate fuel
   a. Prior to July 1, 2016, 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 diesel fuel purchased or otherwise obtained prior to July 1, 2016, may be used until depleted). [06-096 CMR 140, BPT]
   b. Beginning July 1, 2016 or on the date specified in 38 MRSA §603-A(2)(A)(3), the distillate fuel fired shall not exceed a maximum sulfur content limit of 0.005% by weight (50 ppm) [38 MRSA §603-A(2)(A)(3)].
   c. Beginning January 1, 2018 or on the date specified in 38 MRSA §603-A(2)(A)(3), distillate fuel fired shall not exceed a maximum sulfur content limit of 0.0015% by weight (15 ppm). [38 MRSA §603-A(2)(A)(3)]
2. 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. [06-096 CMR 140, BPT, 40 CFR 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 (4/16/2003)	Federally Enforceable
PM_{10}	0.08	A-452-70-B-A (4/16/2003)	Federally Enforceable

PNS shall be limited to the following short-term emission limits for each boiler when firing distillate fuel as an alternative:

Pollutant	lb/MMBtu	Boilers #1 and #2 (lb/hr) each	Enforceability
PM	0.08	7.0	Federally Enforceable
PM_{10}	--	7.0	Federally Enforceable
SO_2	--	4.4	Federally Enforceable
NO_X	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:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.05	A-452-70-B-A (4/16/2003)	Federally Enforceable
PM_{10}	0.05	A-452-70-B-A (4/16/2003)	Federally Enforceable

PNS shall be limited to the following short-term emission limits for each boiler when firing natural gas:

Pollutant	lb/MMBtu	Boilers #1 and #2 (lb/hr) each	Enforceability
PM	0.05	4.4	Federally Enforceable
PM_{10}	--	4.4	Federally Enforceable
SO_2	--	0.1	Federally Enforceable
NO_X	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) and Boilers #337-1, #337-2, 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 CMR 103
Despatch Oven	PM	0.20	06-096 CMR 103
Boiler #337-1	PM	0.05	06-096 CMR 115, BPT
Boiler #337-2	PM	0.05	06-096 CMR 115, BPT

Emissions from the Furnace/Forge, Boiler #298, and Boiler #310 (which fire distillate oil) and Boilers #337-1, #337-2, #373-1, #373-2, and the Despatch Oven (which fire natural gas only) shall not exceed the following federally enforceable limits. [06-096 CMR 140, BPT]:

Emission Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (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	0.20	0.01
Boiler #373-2	0.13	0.13	0.01	0.24	0.20	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 (6) minute block average basis, except for one 6-minute period per hour of not more than 27% opacity, demonstrated in accordance with 40 CFR Part 60, Appendix A, Method 9. Visible emissions from each unit (Boiler #1 and Boiler #2) firing natural gas shall each not exceed 10 % opacity on a 6 minute block average basis, except for no more than one (1) six (6) minute block average in a 3 hour period.

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 CFR Part 60, Appendix A, Method 9 is not required at this time. [40 CFR Part 60 Subpart Dc & 06-096 CMR 140, BPT]

E. Visible emissions from the Furnace/Forge shall each not exceed 20 % opacity on a 6 minute block average basis, except for no more than one (1) six (6) minute block average in a 3 hour period. [06-096 CMR 140, BPT]

F. Visible emissions from the Despatch Over, Boilers #337-1, and #337-2 firing natural gas shall each not exceed 10 % opacity on a 6 minute block average basis, except for no more than one (1) six (6) minute block average in a 3 hour period. [A-452-77-6-A, 06-096 CMR 140, BPT]

G. New Source Performance Standards (NSPS)
Boilers #1 and #2 shall comply with all operating and documentation requirements of 40 CFR Part 60 Subpart Dc (NSPS), *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*. When using distillate fuel, PNS shall maintain records of monthly distillate fuel use indicating the quantity of fuel consumed and the percent (%) sulfur content of the fuel. The sulfur content of the distillate fuel shall be less than or equal to 0.05% by weight documented by fuel receipts or records from the supplier.

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

1. PNS has submitted notification to EPA and the Department of the date of construction, anticipated start-up, and actual start-up. This notification included the design heat input capacity of the boiler and the type of fuel to be combusted. [40 CFR §60.48c(a)]
2. PNS performed and submitted to EPA and the Department an initial performance test within 30 days after achieving the maximum production rate at which the facility will be operated but not later than 180 days after the initial start-up of the facility. The performance test consisted of fuel supplier certification of the sulfur content of the fuel fired in Boilers #1 and #2. The fuel supplier certification must contain the name of the oil supplier and a statement from the oil supplier that the oil complies with ASTM specifications for #2 fuel oil. [40 CFR §60.44c and 40 CFR §60.45c]
3. PNS shall record and maintain records of the amounts of each fuel combusted during each day or, if applicable, monthly records with fuel certifications. [40 CFR §60.48c(g)]
4. PNS shall submit to EPA and the Department semi-annual reports. These reports shall include the calendar dates covered in the reporting period and records of fuel supplier certifications. The semi-annual reports are due within 30 days of the end of each 6-month period.
5. PNS shall meet the Compliance and Performance Test Methods, Emissions Monitoring, and Reporting and Recordkeeping requirements for Particulate Matter and Sulfur Dioxide as specified in 40 CFR Part 60 Subpart Dc.

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

   Compliance Clerk
   USEPA Region 1
   5 Post Office Sq. Suite 100
   Boston, MA 02109-3912

H. National Emission Standards for Hazardous Air Pollutants (NESHAP)
Boilers #1 and #2 are subject to NESAHP *for Industrial/Commercial/Institutional Boilers* contained in 40 CFR Part 63, Subpart JJJJJJ. PNS shall comply with all applicable requirements contained in 40 CFR Part 63, Subpart JJJJJJ including, but not limited to, the following:

1. PNS submitted an Initial Notification to EPA no later than January 20, 2014. [40 CFR Part 63.11225(a)(2)]
2. PNS implemented a boiler tune-up program, to include the initial tune-up of Boiler #1 and Boiler #2, no later than March 21, 2014. [40 CFR Part 63.11196(a)(1)]
3. The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:
   a. As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted; not to exceed 72 months from the previous inspection for boilers with oxygen trim systems. [40 CFR Part 63.11223(b)(1) & (c)]
   b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 CFR Part 63.11223(b)(2)]
   c. 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; 72 months from the previous inspection for boilers with oxygen trim systems. [40 CFR Part 63.11223(b)(3) & (c)]
   d. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 CFR Part 63.11223(b)(4)]
   e. Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 CFR Part 63.11223(b)(5)]
   f. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 CFR Part 63.11223(b)(7)]

4. PNS shall maintain the tune-up compliance report onsite and, if requested, submit to EPA. The report shall contain the concentration of CO in the effluent stream (ppmv) and oxygen in volume percent, measured at high fire or typical operating load, before and after the boiler tune-up, a description of any corrective actions taken as part of the tune-up of the boiler, and the types and amounts of fuels used over the 12 months prior to the tune-up of the boiler. The compliance report shall also include the company name and address; a compliance statement signed by a responsible official certifying truth, accuracy, and completeness; and a description of any deviations and corrective actions.
   [40 CFR Part 63.11223(b)(6) and 40 CFR Part 63.11225(b)]
5. PNS performed a one-time energy assessment by a qualified energy assessor on each of the applicable boilers no later than March 21, 2014. [40 CFR Part 63.11196(a)(3)]
6. The energy assessment shall include a visual inspection of the boiler system; an evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints; an inventory of major energy use systems consuming energy from Boilers #1 and #2 and which are under control of PNS; a review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage; a list of major energy conservation measures that are within the facility's control; a list of the energy savings potential of the energy conservation measures identified; and a comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.[40 CFR Part 63, Table 2(16)]
7. PNS submitted a Notification of Compliance Status to EPA no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(b)]

I. PNS shall perform NOx and particulate stack testing on Boilers #1 and #2 to demonstrate their ability to meet the NOx and particulate limits shown in Condition (14)C upon Department request. If NOx stack testing is required, it shall be done for both fuels (when operating with natural gas and when operating with distillate fuel) however, the particulate stack test shall be done when operating with distillate fuel only. [06-096 CMR 140, BPT]

(15) **Turbine Generator #1:**
[06-096 CMR 140, BPT & A-452-70-A-I issued 3/1/00]

A. PNS is licensed to operate a co-generation project that consists of a 5.5 megawatt (MW) natural gas-fired turbine with supplemental duct burning.

B. Turbine Generator #1 is subject to New Source Performance Standards (NSPS), 40 CFR Part 60, Subpart GG - *Standards of Performance for Stationary Gas Turbines*, for which construction is commenced after October

3, 1977. Compliance with the BPT emissions performance requirements assures compliance with the NSPS for Subpart GG. Some separate reporting and monitoring may be required by Subpart GG including:

- 40 CFR 60.7, Notification and Record Keeping
- 40 CFR 60.8, Performance Tests
- 40 CFR 60.11, Compliance with Standards and Maintenance
- 40 CFR 60.12, Circumvention
- 40 CFR 60.13, Monitoring Requirements
- 40 CFR 60.19, General Notification and Reporting Requirements

C. The HRSG duct burner rated at 47.2 MMBtu/hr for Turbine Generator #1 is subject to the New Source Performance Standards (NSPS), *Standards of Performance for Small Industrial-Commercial Steam Generating Units*, 40 CFR Part 60, Subpart Dc.

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

1. PNS shall submit notification to EPA and the Department of the date of construction, anticipated start-up, and actual start-up. This notification included the design heat input capacity of the boiler and the type of fuel to be combusted. [40 CFR §60.48c(a)]
2. PNS performed and submitted to EPA and the Department an initial performance test within 30 days after achieving the maximum production rate at which the facility will be operated but not later than 180 days after the initial start-up of the facility.
3. PNS shall record and maintain records of the amounts of the fuel combusted during each day or, if applicable, monthly records with fuel certifications. [40 CFR §60.48c(g)]
4. PNS shall submit to EPA and the Department semi-annual reports. These reports shall include the calendar dates covered in the reporting period and records of fuel supplier certifications. The semi-annual reports are due within 30 days of the end of each 6-month period.
5. PNS shall meet the Compliance and Performance Test Methods, Emissions Monitoring, and Reporting and Recordkeeping requirements for Particulate Matter and Sulfur Dioxide as specified in 40 CFR Part 60 Subpart Dc.
6. The following address for EPA shall be used for any reports or notifications required to be copied to them:

Compliance Clerk
USEPA Region 1
5 Post Office Sq. Suite 100
Boston, MA 02109-3912

D. PNS shall meet the following requirements for the natural gas fired Turbine Generator #1 with a heat recovery steam generator and supplemental duct burner:

The natural gas-fired combustion turbine shall meet the following limits:

Pollutant	Load	ppmdv	lb/MMBtu	lb/hr	Enforceability
PM	All	--	0.02	1.3	Federally Enforceable
PM_{10}	All	--	--	1.3	Federally Enforceable
SO_2	All	--	--	0.4	Federally Enforceable
NOx	All	25 (corrected to 15% O_2)	0.10	6.7	Federally Enforceable
CO	All	--	--	5.7	Federally Enforceable
VOC	All	--	--	2.4	Federally Enforceable

The natural gas-fired duct burner shall not exceed the following emission limits:

Pollutant	Load	ppmdv	lb/MMBtu	lb/hr	Enforceability
PM	All	--	0.02	1.0	Federally Enforceable
PM_{10}	All	--	--	1.0	Federally Enforceable
SO_2	All	--	--	0.1	Federally Enforceable
NOx	All	25 (corrected to 15% O_2)	0.10	4.7	Federally Enforceable
CO	All	--	--	3.8	Federally Enforceable
VOC	All	--	--	0.2	Federally Enforceable

E. Exhaust from Turbine Generator #1 shall vent through a 167 foot above ground stack. Visible emissions from the turbine shall not exceed 10% on a six (6) minute block average basis, except for no more than two (2) six (6) minute block averages in a 3-hour period, demonstrated in accordance with 40 CFR Part 60, Appendix A, Method 9.

F. For scheduled turbine generator replacements, actual emissions for each criteria pollutant will be less than 3 tons per year to be considered insignificant and there will be no increase from current licensed allowed emissions.

(16) **Turbine Generator #2 with distillate fuel alternative:**
[06-096 CMR 140, BPT & A-452-70-B-A issued 4/16/03]

A. 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.

B. Turbine Generator #2 is subject to New Source Performance Standards (NSPS), 40 CFR Part 60, Subpart GG - *Standards of Performance for Stationary Gas Turbines*, for which construction is commenced after October 3, 1977. Compliance with the BPT emissions performance requirements assures compliance with the NSPS for Subpart GG. Some separate reporting and monitoring may be required by Subpart GG including:

- 40 CFR 60.7, Notification and Record Keeping
- 40 CFR 60.8, Performance Tests
- 40 CFR 60.11, Compliance with Standards and Maintenance
- 40 CFR 60.12, Circumvention
- 40 CFR 60.13, Monitoring Requirements
- 40 CFR 60.19, General Notification and Reporting Requirements

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 Steam Generating Units*, 40 CFR Part 60, Subpart Dc.

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

1. PNS submitted notification to EPA and the Department of the date of construction, anticipated start-up, and actual start-up. This notification included the design heat input capacity of the boiler and the type of fuel to be combusted. [40 CFR §60.48c(a)]
2. PNS performed and submitted to EPA and the Department an initial performance test within 30 days after achieving the maximum production rate at which the facility will be operated but not later than 180 days after the initial start-up of the facility. The performance test consisted of fuel supplier certification of the sulfur content of the fuel fired in the HRSGs. The fuel supplier certification must contain the name of the oil supplier and a statement from the oil supplier that the oil complies with ASTM specifications for #2 fuel oil. [40 CFR §60.44c and 40 CFR §60.45c]
3. PNS shall record and maintain records of the amounts of each fuel combusted during each day or, if applicable, monthly records with fuel certifications. [40 CFR §60.48c(g)]
4. PNS shall submit to EPA and the Department semi-annual reports. These reports shall include the calendar dates covered in the reporting period and

records of fuel supplier certifications. The semi-annual reports are due within 30 days of the end of each 6-month period.

5. PNS shall meet the Compliance and Performance Test Methods, Emissions Monitoring, and Reporting and Recordkeeping requirements for Particulate Matter and Sulfur Dioxide as specified in 40 CFR Part 60 Subpart Dc.
6. The following address for EPA shall be used for any reports or notifications required to be copied to them:

   Compliance Clerk
   USEPA Region 1
   5 Post Office Sq. Suite 100
   Boston, MA 02109-3912

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

The HRSG unit on Turbine Generator #2 is subject to *NESHAP for Industrial, Commercial, and Institutional Boilers and Process Heaters* for Area Sources: contained in 40 CFR Part 63, Subpart JJJJJJ.

A summary of the currently applicable federal 40 CFR Part 63, Subpart JJJJJJ requirements is listed below. HRSG for Turbine Generator #2 is considered an existing boiler. Notification forms and additional rule information can be found on the following website: www.epa.gov/ttn/atw/boiler/boilerpg.html.

a. Compliance Dates, Notifications, and Work Practice Requirements

i. Initial Notification of Compliance

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

ii. Boiler Tune-Up Program

(a) A boiler tune-up program was to be implemented to include the initial tune-up of applicable boilers no later than March 21, 2014. [40 CFR Part 63.11196(a)(1)]

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

1. As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted; not to exceed 72 months from the previous inspection for boilers with oxygen trim systems.[40 CFR Part 63.11223(b)(1) & (c)]

2. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 CFR Part 63.11223(b)(2)]
3. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted; 72 months from the previous inspection for boilers with oxygen trim systems. [40 CFR Part 63.11223(b)(3) & (c)]
4. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 CFR Part 63.11223(b)(4)]
5. Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 CFR Part 63.11223(b)(5)]
6. If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up. [40 CFR Part 63.11223(b)(7)]

(c) The facility shall implement a boiler tune-up program after the initial tune-up and initial compliance report (called a Notification of Compliance Status) has been submitted.

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

Boiler Category	**Tune-Up Frequency**
New or Existing Oil, Biomass and Coal fired boilers that are not designated as "Boilers with less frequent tune up requirements" listed below	Every 2 years
New and Existing Oil, Biomass, and Coal fired Boilers with less frequent tune up requirements	
Boiler with oxygen trim system which maintains an optimum air-to-fuel ratio that would otherwise be subject to a biennial tune up	Every 5 years

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

2. The tune-up compliance report shall be maintained onsite and, if requested, submitted to EPA. The report shall contain the concentration of CO in the effluent stream (ppmv) and oxygen in volume percent, measured at high fire or typical operating load, before and after the boiler tune-up, a description of any corrective actions taken as part of the tune-up of the boiler, and the types and amounts of fuels used over the 12 months prior to the tune-up of the boiler. [40 CFR Part 63.11223(b)(6)]

   The compliance report shall also include the company name and address; a compliance statement signed by a responsible official certifying truth, accuracy, and completeness; and a description of any deviations and corrective actions. [40 CFR Part 63.11225(b)]

iii. Energy Assessment

HRSG for Turbine Generator #2 is subject to the energy assessment requirement as follows:

(a) A one-time energy assessment was required to be performed by a qualified energy assessor on the applicable boilers no later than March 21, 2014. [40 CFR Part 63.11196(a)(3)]

(b) The energy assessment shall include a visual inspection of the boiler system; an evaluation of operating characteristics of the affected boiler systems, specifications of energy use systems, operating and maintenance procedures, and unusual operating constraints; an inventory of major energy use systems consuming energy from affected boilers and which are under control of the boiler owner or operator; a review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage; a list of major energy conservation measures that are within the facility's control; a list of the energy savings potential of the energy conservation measures identified; and a comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.
[40 CFR Part 63, Table 2(16)]

(c) A Notification of Compliance Status was required to be submitted to EPA no later than July 19, 2014. [40 CFR Part 63.11225(a)(4) and 40 CFR Part 63.11214(c)]

b. Recordkeeping
Records shall be maintained consistent with the requirements of 40 CFR Part 63 Subpart JJJJJJ including the following [40 CFR Part 63.11225(c)]: copies of notifications and reports with supporting compliance documentation; 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; documentation of fuel type(s) used monthly by each boiler; the occurrence and duration of each malfunction of the boiler; and actions taken during periods of malfunction to minimize emissions and actions taken to restore the malfunctioning boiler to its usual manner of operation. Records shall be in a form suitable and readily available for expeditious review.

E. When firing natural gas, Turbine Generators #2 shall meet the following limits:

Pollutant	Load	ppmdv	lb/MMBtu	lb/hr	Enforceability
PM	All	--	0.02	1.3	Federally Enforceable
PM_{10}	All	--	--	1.3	Federally Enforceable
SO_2	All	--	--	0.23	Federally Enforceable
NOx	All	25 (corrected to 15% O_2)	0.10	6.7	Federally Enforceable
CO	All	--	--	5.7	Federally Enforceable
VOC	All	--	--	2.4	Federally Enforceable

When firing natural gas, the duct burner shall not exceed the following emission limits:

Pollutant	Load	ppmdv	lb/MMBtu	lb/hr	Enforceability
PM	All	--	0.02	0.9	Federally Enforceable
PM_{10}	All	--	--	0.9	Federally Enforceable
SO_2	All	--	--	0.1	Federally Enforceable
NOx	All	25 (corrected to 15% O_2)	0.10	4.5	Federally Enforceable
CO	All	--	--	2.7	Federally Enforceable
VOC	All	--	--	0.3	Federally Enforceable

When firing distillate fuel, Turbine Generator #2 shall meet the following limits:

Pollutant	ppmdv	lb/MMBtu	lb/hr	Enforceability
PM	--	0.08	5.0	Federally Enforceable
PM_{10}	--	--	5.0	Federally Enforceable
SO_2	--	--	3.2	Federally Enforceable
NOx	96 (corrected to 15% O_2)	0.40	25.2	Federally Enforceable
CO	--	--	8.0	Federally Enforceable
VOC	--	--	2.3	Federally Enforceable

When firing distillate fuel, the duct burner shall not exceed the following emission limits:

Pollutant	lb/MMBtu	lb/hr	Enforceability
PM	0.12	5.4	Federally Enforceable
PM_{10}	--	5.4	Federally Enforceable
SO_2	--	2.3	Federally Enforceable
NOx	0.20	8.8	Federally Enforceable
CO	--	4.4	Federally Enforceable
VOC	--	0.5	Federally Enforceable

F. Exhaust from Turbine Generator #2 shall vent through a 167 foot above ground stack. When firing distillate fuel, visible emissions from the turbine shall not exceed 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block averages in a 3-hour period. When firing natural gas, visible emissions from the turbine shall not exceed 10% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block averages in a 3-hour period, demonstrated in accordance with 40 CFR Part 60, Appendix A, Method 9.

G. PNS has performed the required NOx stack tests after the installation of the turbine. PNS shall perform NOx and particulate stack testing to demonstrate their ability to meet the NOx and particulate limits shown in Condition (16)E upon Department request.

H. For scheduled turbine generator replacements, actual emissions for each criteria pollutant will be less than 3 tons per year to be considered insignificant and there will be no increase from current licensed allowed emissions

(17) **Emergency Generators and Fire Pump**:

A. Allowable Operation and Fuels

1. The emergency generators, temporary MUSE generators, and the Fire Pumps are licensed to fire distillate fuel.
2. Each emergency generator is limited to 100 hours per year for non-emergency operation, based on a 12-month calendar year total. Compliance shall be demonstrated by a written log of all generator operating hours.
   [A-452-70-A-I, 06-096 CMR 140, BPT]

B. Fuel Sulfur Content

1. The fuel oil sulfur content for the Emergency Generators and Fire Pumps shall be limited to 0.0015% sulfur by weight for units subject to 40 CFR Part 60 Subpart IIII and 0.05 % sulfur for units subject to 40 CFR Part 63 Subpart ZZZZ. [06-096 CMR 140, BPT]
2. Fuel sulfur content compliance shall be demonstrated by fuel delivery receipts from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [06-096 CMR 140, BPT]

C. New Source Performance Standards (NSPS)
The federal regulation 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)* is applicable to diesel engines ordered after July 11, 2005 and manufactured after April 1, 2006. The following engines were manufactured and installed after these dates, therefore these units are subject to Subpart IIII.

Equipment	Maximum Heat Input Capacity (MMBtu/hr)	Mfr. Date
G09	6.0	2010
G10	1.6	2012
G11	0.7	2013
G12	3.1	2014
G13	1.9	2014
G14	3.9	2014
G15	0.5	2014
G16	1.9	2014
(6) MUSE generators (each)	9.0	2007
Fire Pump	1.1	2010
G20	2.51	2008

The above units are subject to Subpart IIII, including the following:

1. Manufacturer Certification
   The engines shall be certified by the manufacturer as meeting the emission standards for new non-road compression ignition engines found in §60.4202. [40 CFR §60.4205(b)]

2. Ultra-Low Sulfur Diesel Fuel
   The diesel fuel fired in the engines shall not exceed 15 ppm sulfur (0.0015% sulfur), except that any existing diesel 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 CFR §60.4207(b) and 06-096 CMR 115]

3. Non-Resettable Hour Meter
   A non-resettable hour meter shall be installed and operated on each generator and fire pump. [40 CFR §60.4209(a)]

4. Annual Time Limit for Maintenance and Testing
   a. The generators and fire pump shall each be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity unless the conditions in §60.4211(f)(3)(i) are met). These limits are based on a calendar year. Compliance shall be demonstrated by a written log of all generator operating hours. [40 CFR §60.4211(f) and 06-096 CMR 115]

   b. PNS shall keep records that include maintenance conducted on the generator(s) and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the hours spent for emergency operation, including what classified the operation as emergency and how many hours spent for non-emergency. If the generators are operated during a period of demand response or deviation from standard voltage or frequency, or to supply power during a non-emergency situation as part of a financial arrangement with another entity as specified in §60.4211(f)(3)(i), the PNS shall keep records of the notification of the emergency situation, and the date, start time, and end time of generator operation for these purposes.

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

6. Annual Reporting for Demand Response Availability Over 15 Hours Per Year (for generators greater than 100 brake hp)
   If PNS operates or is contractually obligated to be available for more than 15 hours per calendar year 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 as specified in §60.4211(f)(3)(i), the facility shall submit an annual report containing the information in §60.4214(d)(1)(i) through (vii). The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year. The annual report must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form is not available in CEDRI at the time that the report is due, the written report must be submitted to the following address:

   Director, Office of Ecosystem Protection
   U.S. Environmental Protection Agency
   5 Post Office Square, Suite 100
   Boston, MA 02109-3912

   [40 CFR §60.4214(d)]

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

The federal regulation 40 CFR Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines* is applicable to the following engines.

Equipment	Maximum Heat Input Capacity (MMBtu/hr)	Manufacture Date
G01	20	2003
G02	20	2003
G03	3.0	2005

G05	3.0	Pre 1990
G06	3.0	Pre 1990
G08	3.0	Pre 1990
G17	1.0	pre-2000
G18	2.51	pre-2000
G19	2.01	2004
G21	1.25	2008
G22	2.51	2003
G23	2.01	pre-2000
G24	2.51	pre-2000
G25	2.51	pre-2000
Fire Pump86A	1.23	pre-2000
Fire Pump132	0.90	1988
Fire Pump136	0.87	1986
Fire Pump306	0.74	1986
Fire Pump341	0.90	1980
Fire Pump343	1.56	1989

These engines shall meet the applicable requirements of 40 CFR Part 63, Subpart ZZZZ, including the following:

1. PNS shall meet the following operational limitations for engines:

   a. Change the oil and filter annually,
   b. Inspect the air cleaner annually, and
   c. Inspect the hoses and belts annually and replace as necessary.

   A log shall be maintained documenting compliance with the operational limitations:[40 CFR §63.6603(a) and Table 2(d); and 06-096 CMR 140]
2. PNS has the option of utilizing an oil analysis program which complies with the requirements of §63.6625(i) in order to extend the specified oil change requirement. If this option is used, PNS must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR§63.6625(i)]

3. A non-resettable hour meter shall be installed and operated on each engine. [40 CFR §63.6625(f)]

4. Maintenance, Testing, and Non-Emergency Operating Situations
   a. The engines will each be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or

otherwise supply power as part of a financial arrangement with another entity unless the conditions in §63.6640(f)(4)(ii) are met). These limits are based on a calendar year. Compliance shall be demonstrated by a written log of all engine operating hours. [40 CFR §63.6640(f) and 06-096 CMR 115]

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 hours spent for emergency operation, including what classified the operation as emergency and how many hours spent for non-emergency. If the engine is operated during a period of demand response or deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii), PNS must keep records of the notification of the emergency situation, and the date, start time, and end time of generator operation for these purposes. [40 CFR §63.6655(e) and (f)]

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

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

7. If PNS operates or is contractually obligated to be available for more than 15 hours per calendar year 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 as specified in §63.6640(f)(4)(ii), beginning January 1, 2015, the diesel fuel fired in the generators shall not exceed 15 ppm sulfur (0.0015%). Any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted. [40 CFR §63.6604(b)]

8. If PNS operates or is contractually obligated to be available for more than 15 hours per calendar year 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 as specified in §63.6640(f)(4)(ii), the facility shall submit an annual report containing the information in §63.6650(h)(1)(i) through (ix). The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year. The annual report must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form is not available in CEDRI at the time that the report is due, the written report must be submitted to the following address:

Director, Office of Ecosystem Protection
U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, MA 02109-3912

[40 CFR §63.6650(h)]

E. Emissions for each generator shall not exceed the following limit:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.12	06-096 CMR 140, BPT A-452-70-C-R (issued 1/25/06)	**Federally Enforceable**

F. Emissions shall not exceed the following limits [06-096 CMR 140, BPT]:

Unit	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Emergency Generator (G01)	2.4	2.4	0.2	64.0	17.0	1.8
Emergency Generator (G02)	2.4	2.4	0.2	64.0	17.0	1.8
Emergency Generator (G03)	0.4	0.4	0.2	13.2	2.9	1.1
Emergency Generator (G05)	0.4	0.4	0.2	13.2	2.9	1.1
Emergency Generator (G06)	0.7	0.7	0.1	26.5	5.7	2.1
Emergency Generator (G08)	0.4	0.4	0.2	13.2	2.9	1.1
Emergency Generator (G09)	0.7	0.7	0.1	12.2	15.1	1.7

Emergency Generator (G10)	0.1	0.1	0.1	3.1	1.2	0.4
Emergency Generator (G11)	0.1	0.1	0.1	1.2	0.7	0.2
Emergency Generator (G12)	0.3	0.3	0.1	6.1	3.3	0.9
Emergency MUSE generators (each at ~900 kW)	0.4	0.4	0.2	18.2	6.9	2.6
Emergency Generator (G13)	0.1	0.1	0.1	3.6	1.4	0.5
Emergency Generator (G14)	0.2	0.2	0.1	7.1	2.7	1.0
Emergency Generator (G15)	0.1	0.1	0.1	0.8	0.5	0.1
Emergency Generator (G16)	0.1	0.1	0.1	3.6	1.4	0.5
Fire Pump	0.1	0.1	0.1	4.9	1.1	0.4

* The emergency generators (G17, G18, G19, G21, G22, G23, G24, G25, and additional fire pumps) that were considered "insignificant activities" in previous licensing actions, will meet the applicable federal and state regulations (specifically including 40 CFR Part 63, Subpart ZZZZ and 06-096 CMR 101), however, these relatively small units will not have licensed short term lb/hr emission limits.

G. Visible Emissions

Visible emissions from each emergency generator shall not exceed 20% opacity on a 6-minute block average, except for no more than two (2) six (6) minute block averages in a 3-hour period. [06-096 CMR 101]

(18) PNS facility-wide fuel usage shall be limited to 2.26 billion cubic feet of natural gas and 4,900,000 gallons of distillate oil, based on a 12-month rolling total. In case of an emergency, these facility-wide fuel limits may be adjusted.

(19) **Painting and Coating Operations**:

A. PNS is subject to the following requirements in order to minimize VOC emissions from painting and coating operations.

The total non-exempt fugitive VOC emissions (not including VOC emissions from degreasing operations) from the Portsmouth Naval Shipyard shall not exceed 48 tons per year based on a 12 month rolling total updated monthly and shall not exceed 15 tons during any one calendar month, where:

i. In 2013 the HSMS tracking system, approved by the Department on July 11, 1997 was replaced with an equivalent system, Hazardous Material

Management System (HMMS). PNS may create an equivalent system, approved by the Department, to track VOC and HAP emissions.

ii. The HMMS shall provide VOC and HAP emissions using calculation methods equivalent to those described in Enclosure (1) of the July 11, 1997 letter, for HSMS. To summarize, whenever HM is used in HMMS, a transaction is performed in HMMS identifying the material, quantity used, and the process code the material is assigned to. HMMS then applies an algorithm associated with the process code to calculate emissions for the chemical constituents within the product identified as VOCs/HAPs. A report generator is then used to summarize the amount of each VOC/HAP, by CAS number, that was released as point and non-point emissions.

[06-96 CMR 140, BPT, A-452-71-F-M, issued 7/25/97]

B. PNS shall use the HMMS tracking system, or equivalent system approved by the Department, as noted above. PNS shall meet the following Volatile Organic HAP (VOHAP) limits for Marine Coatings:

Coating Categories	**Grams/liter coating (minus water and exempt compounds)**	**Grams/liter solids temp ≥ 4.5°C**	**Grams/liter solids temp < 4.5°C**
General Use	340	571	728
Specialty Air Flask	340	571	728
Antenna	530	1,439	
Antifoulant	400	765	971
Heat resistant	420	841	1,069
High-gloss	420	841	1,069
High-temperature	500	1,237	1,597
Inorganic zinc high build	340	571	728
Military exterior	340	571	728
Mist	610	2,235	---
Navigational aids	550	1,597	---
Nonskid	340	571	728
Nuclear	420	841	1,069
Organic zinc	360	630	802
Pretreatment wash primer	780	11,095	---
Repair and maint. of thermoplastics	550	1,597	---
Rubber camouflage	340	571	728
Sealant for thermal spray aluminum	610	2,235	---
Special marking	490	1.178	---
Specialty interior	340	571	728
Tack coat	610	2,235	---
Undersea weapons systems	340	571	728
Weld-through precon. primer	650	2,885	---

PNS may use up to fifty gallons of any combination of coatings which exceed the VOC emission limitation of the above table during any twelve consecutive month period.

In the event that small amounts of specialty coating with a higher VOC content is needed, then emissions averaging over a 30 day period will be allowed to provide flexibility. When using the emissions averaging, PNS must show compliance by actual daily emissions averaged over the 30-day period.

[06-096 CMR 140, BPT, A-452-71-F-M, issued 7/25/97]

C. PNS, for the purpose of demonstrating ongoing non-applicability to the Shipbuilding MACT and ongoing compliance with VOC RACT and BPT requirements, shall continue to track HAP and VOC emissions and report the results to the Department annually as is currently required under 06-096 CMR 137. PNS shall limit total HAP emissions to less than 25 tons per year and shall limit any individual HAP to less than 10 tons per year. [06-096 CMR 140, BPT & A-452-71-D-A issued 10/21/96]

D. PNS shall maintain "Good Housekeeping" practices, including but not limited to: careful application of aerosol spray materials, sealing of VOC material containers to reduce evaporative loss, proper personnel training in the use of VOC application equipment and clean-up activities, and proper handling of all VOC containing materials in a manner to minimize the likelihood of spills. [06-096 CMR 140, BPT & A-452-71-D-A issued 10/21/96]

(20) **Water Evaporator**

PNS is licensed to operate a steam driven evaporator unit to evaporate reprocessed water with slightly elevated levels of tritium. To meet BPT, PNS shall meet the emission and reporting requirements of 40 CFR Part 61 Subpart I. [06-096 CMR, BPT, A-452-77-1-M issued 11/24/08]

(21) **Radionuclides**

Existing radionuclide emission sources shall meet the emissions testing and reporting requirements of 40 CFR 61 Subpart I. In order to provide flexibility and to minimize license modifications/revisions, the Shipyard is allowed new construction of or modification of radionuclide sources within the facility if the following conditions are met:

- The effective dose equivalent calculated by using methods described in §61.103, that is caused by all emissions from the facility including those potentially emitted by the proposed new construction or modification, is less than 10 percent of the standard prescribed in §61.102, or

- The effective dose equivalent calculated by using methods described in 61.103, that is caused by all emissions from the new construction or modification, is less than 1% of the limit prescribed in 61.102, and

- To meet BPT, the Shipyard shall meet the emission testing and reporting requirements of 40 CFR Part 61 Subpart I.

[06-096 CMR, BPT, 40 CFR Part 61 Sub part I]

(22) **Abrasive Blasting and Containment Structures**

PNS does abrasive blasting and spray painting. These operations (excluding aerosol spray can painting) take place in containments such as removable submarine covers, sandblast booths, paint booths, large fabricated enclosures, etc. The Shipyard performs abrasive blasting mostly to support coating operations. Emissions from sandblast booths or paint booths vent through air filters or bag houses/other type of equivalent dust collection system (filter systems).

The filter systems are used to control Particulate Matter (PM) emissions and are operated with a gauge to monitor the pressure drop across the filters. The air filters do not have pressure drop readings. The filter systems are operated with a pressure drop within manufacturers' recommendations. The Shipyard performs monthly inspections of the filter systems to ensure there is no damage that would allow excess emissions. Monthly inspections are required only when the filter systems are in use.

Whenever opacity compliance testing is required, USEPA Method 9 shall be used. When approved in writing an equivalent test method may be substituted for the required test method. Emissions from baghouses or air filters shall be limited to 10% opacity on a six minute block average.

[06-096 CMR 140, BPT, A-452-70-A-I issued 3/1/00] **Enforceable by State-Only**

(23) **Parts Washers**

Parts washers at PNS are subject to *Solvent Cleaners*, 06-096 CMR 130 (as amended).

A. PNS shall keep records of the amount of solvent added to each parts washer. [06-096 CMR 115, BPT]
B. The following are exempt from the requirements of 06-096 CMR 130 [06-096 CMR 130]:
   1. Solvent cleaners using less than two liters (68 oz) of cleaning solvent with a vapor pressure of 1.00 mmHg, or less, at 20° C (68° F);
   2. Wipe cleaning; and,
   3. Cold cleaning machines using solvents containing less than or equal to 5% VOC by weight.

C. The following standards apply to cold cleaning machines that are applicable sources under 06-096 CMR 130.
   1. PNS shall attach a permanent conspicuous label to each unit summarizing the following operational standards [06-096 CMR 130]:
      a. Waste solvent shall be collected and stored in closed containers.
      b. Cleaned parts shall be drained of solvent directly back to the cold cleaning machine by tipping or rotating the part for at least 15 seconds or until dripping ceases, whichever is longer.
      c. Flushing of parts shall be performed with a solid solvent spray that is a solid fluid stream (not a fine, atomized or shower type spray) at a pressure that does not exceed 10 psig. Flushing shall be performed only within the freeboard area of the cold cleaning machine.
      d. The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.
      e. Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the degreaser.
      f. When a pump-agitated solvent bath is used, the agitator shall be operated to produce no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used.
      g. Spills during solvent transfer shall be cleaned immediately. Sorbent material used to clean spills shall then be immediately stored in covered containers.
      h. Work area fans shall not blow across the opening of the degreaser unit.
      i. The solvent level shall not exceed the fill line.
   2. The remote reservoir cold cleaning machine shall be equipped with a perforated drain with a diameter of not more than six inches. [06-096 CMR 130]

(24) **Gasoline Storage Tank**

A. The fill pipe shall extend within 6 inches of the bottom of the gasoline storage tank. [06-096 CMR 118]
B. The licensee shall maintain records of the monthly and annual throughput of gasoline. [06-096 CMR 118]

(25) **Fugitive Emissions**

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed an opacity of 20 percent, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20 percent in any one (1) hour. [06-096 CMR 101]

(26) **General Process Sources**

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

(27) **Semiannual Reporting** [06-096 CMR 140]

A. The licensee shall submit to the Bureau of Air Quality semiannual reports which are due on **January 31st** and **July 31st** of each year. The facility's designated responsible official must sign this report.
B. The semiannual report shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the DEP within seven calendar days of the due date.
C. All instances of deviations from license requirements and the corrective action taken must be clearly identified and provided to the Department in summary form for each six-month interval.

(28) **Annual Compliance Certification**

PNS shall submit an annual compliance certification to the Department and EPA in accordance with Standard Condition (13) of this license. The annual compliance certification is due January 31 of each year. The facility's designated responsible official must sign this report.

The annual compliance certification shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the Department within seven calendar days of the due date. Certification of compliance is to be based on the stack testing or monitoring data required by this license. Where the license does not require such data, or the license requires such data upon request of the Department and the Department has not requested the testing or monitoring, compliance may be certified based upon other reasonably available information such as the design of the equipment or applicable emission factors.
[06-096 CMR 140]

(29) **Annual Emission Statement**

In accordance with *Emission Statements*, 06-096 CMR 137 (as amended), the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of either:

A. A computer program and accompanying instructions supplied by the Department; or
B. A written emission statement containing the information required in 06-096 CMR 137.

The emission statement must be submitted by the date as specified in 06-096 CMR 137.

[06-096 CMR 137]

(30) **General Applicable State Regulations**

The licensee is subject to the State regulations listed below.

Origin and Authority	Requirement Summary	Enforceability
06-096 CMR 102	Open Burning	-
06-096 CMR 109	Emergency Episode Regulation	-
06-096 CMR 110	Ambient Air Quality Standard	-
06-096 CMR 116	Prohibited Dispersion Techniques	-
38 M.R.S.A. §585-B, §§5	Mercury Emission Limit	Enforceable by State-only

(31) **Units Containing Ozone Depleting Substances**

When repairing or disposing of units containing ozone depleting substances, the licensee shall comply with the standards for recycling and emission reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioning units in Subpart B. Examples of such units include refrigerators and any size air conditioners that contain CFCs.
[40 CFR, Part 82, Subpart F]

(32) **Asbestos Abatement**

When undertaking Asbestos abatement activities, PNS shall comply with the Standard for Asbestos Demolition and Renovation 40 CFR Part 61, Subpart M.

(33) **Expiration of a Part 70 license**

A. PNS shall submit a complete Part 70 renewal application at least 6 months prior, but no more than 18 months prior, to the expiration of this air license.

B. Pursuant to Title 5 MRSA §10002, and 06-096 CMR 140, the Part 70 license shall not expire and all terms and conditions shall remain in effect until the Department takes final action on the renewal application of the Part 70 license. An existing source submitting a complete renewal application under 06-096 CMR 140 prior to the expiration of the Part 70 license will not be in violation of operating without a Part 70 license. **Enforceable by State-only**

(34) **New Source Review**

PNS is subject to all previous New Source Review (NSR) requirements summarized in this Part 70 air emissions license and the NSR requirements remain in effect even if this 06-096 CMR 140 Air Emissions License, A-452-70-D-R/A, expires.

DONE AND DATED IN AUGUSTA, MAINE THIS 23 DAY OF July , 2015.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Cone for
PATRICIA W. AHO, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

[Note: If a complete renewal application as determined by the Department, is submitted at least 6 months prior to expiration but no earlier than 18 months, then pursuant to Title 5 MRSA §10002, all terms and conditions of the Part 70 license shall remain in effect until the Department takes final action on the renewal of the Part 70 license.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: July 22, 2010
Date of application acceptance: July 22, 2010

Date filed with the Board of Environmental Protection:

Filed
JUL 24 2015
State of Maine
Board of Environmental Protection

This Order prepared by Edwin Cousins, Bureau of Air Quality