



DEPARTMENT ORDER

**Portland Pipe Line Corporation
 Cumberland County
 South Portland, Maine
 A-197-77-3-M**

**Departmental
 Findings of Fact and Order
 New Source Review
 NSR #3**

FINDINGS OF FACT

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

I. REGISTRATION

A. Introduction

FACILITY	Portland Pipe Line Corporation (PPLC)
LICENSE TYPE	06-096 C.M.R. ch. 115, Minor Revision
NAICS CODES	42271 (Petroleum Bulk Stations and Terminals)
NATURE OF BUSINESS	Crude Petroleum Storage Facility
FACILITY LOCATION	30 Hill Street, South Portland, Maine

B. NSR License Description

Portland Pipe Line Corporation (PPLC) has requested a New Source Review (NSR) license to increase the annual distillate fuel limit for Boilers #3 and #4 combined from 50,000 gallons per year to 250,000 gallons per year and to correct the fee table so the emissions from the emergency generators are based on 100 hours/year of operation instead of 500 hours/year of operation.

C. Emission Equipment

The following equipment is addressed in this NSR license:

Fuel Burning Equipment

<u>Equipment</u>	<u>Max. Heat Input Capacity (MMBtu/hr)</u>	<u>Max. Firing Rate (gal/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Manuf. Date</u>	<u>Install. Date</u>	<u>Stack #</u>
Boiler #3	21 [each]	149.5 [each]	Distillate fuel, 0.5%	1983	1983	1
Boiler #4				1983	1983	

Generators

Equipment	Max. Heat Input Capacity (MMBtu/hr)	Max. Firing Rate (gal/hr)	Output (kW)	Fuel Type, % sulfur	Manuf. Date	Install. Date	Stack #
Pier 2 Emergency Generator	2.42	18.8	250	Distillate fuel, 0.0015%	2002	2002	2
Portable Emergency Generator	1.0	7.5	100		2011	2011	3

D. Definitions

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

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

E. Application Classification

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

The application submitted by PPLC does not violate any applicable federal or state requirements, does not reduce monitoring, reporting, testing, or recordkeeping requirements, and does not seek to modify a Best Available Control Technology (BACT) analysis.

The proposed revision will not result in an emissions increase of greater than 4 tons/year of a single pollutant or 8 tons/year total pollutants, both excluding greenhouse gases. Therefore, the NSR license is determined to be a minor revision under *Minor and Major Source Air Emission License Regulations* 06-096 Code of Maine Rules (C.M.R.) ch. 115. Although the proposed revision is prohibited by PPLC's current air emission license, an application to amend the facility's Part 70 air emission license has been submitted to the Department and is being processed concurrently with this NSR license.

The procedures found in 06-096 C.M.R. ch. 115 can be utilized to process this application since the proposed revision is not prohibited by the Part 70 air emission license. An application to incorporate the requirements of this NSR license into the Part 70 air emission license has been submitted to the Department.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

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

B. Boilers #3 and #4 Fuel Limit Increase

1. Amendment Description

PPLC proposes to increase the fuel limit for Boilers #3 and #4 combined from 50,000 gallons per year of distillate fuel to 250,000 gallons per year of distillate fuel, both on a calendar year total basis. Boilers #3 and #4 are used to manage snow loads and freezing temperatures in the facility's crude oil storage tanks to prevent damage to the tanks' external floating roof structures. The current limit of 50,000 gallons per year was originally established in Air Emission License A-197-74-C-R (6/5/1989). This limit was conservative compared to the average yearly fuel use at the time.

Due to high precipitation, prolonged periods of cold weather this winter, and reduced throughput levels in the facility's crude oil tanks, however, PPLC has found this limit to be insufficient to allow the facility to protect its external floating roofs from ice and snow damage without running the risk of surpassing its fuel limit. In order to avoid the need to increase the fuel limit in the future while also retaining the designation of 'limited-use boiler' as defined in *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*, 40 C.F.R. Part 63, Subpart JJJJJ, PPLC has proposed to increase their fuel limit to 250,000 gallons per year, which is approximately 10,000 gallons less than the 10% annual capacity factor required for the unit to remain a limited-use boiler, but more than the facility anticipates needing for the foreseeable future.

The emission factors for the boilers' PM, PM₁₀, SO₂, and NO_x lb/hr limits and NO_x lb/MMBtu limits and the facility's licensed annual emissions are being updated as part of this amendment to align them with the emission factors used for similar boilers at other licensed emission sources.

2. BPT Findings and Emission Standards

The BPT emission limits for Boilers #3 and #4 were based on the following:

- PM/PM₁₀ – 0.08 lb/MMBtu based on 06-096 C.M.R. ch. 115, BPT
- SO₂ – based on firing distillate fuel with a maximum sulfur content of 0.0015% by weight
- NO_x – 20 lb/1,000 gal based on AP-42, Table 1.3-1, dated 5/10
- CO – 5 lb/1,000 gal based on AP-42, Table 1.3-1, dated 5/10
- VOC – 0.2 lb/1,000 gal based on AP-42, Table 1.3-3, dated 5/10

The BPT emission limits for Boilers #3 and #4 are the following:

Unit	Pollutant	lb/MMBtu
Boilers #3 & #4 [each]	PM	0.08
	PM ₁₀	0.08

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boilers #3 & #4 [each]	1.68	1.68	0.03	3.00	0.75	0.03

PPLC shall be subject to a federally enforceable annual fuel use limit of 250,000 gallons per year of distillate fuel for Boilers #3 and #4 combined, based on a calendar year total. Compliance with this limit shall be demonstrated by fuel use records kept on a monthly and calendar year total basis.

3. Department Determination

The Department has determined that compliance with the above requirements constitutes BPT for the operation of Boilers #3 and #4.

C. Incorporation Into the Part 70 Air Emission License

The requirements in this 06-096 C.M.R. ch. 115 New Source Review license shall apply to the facility upon issuance. Per *Part 70 Air Emission License Regulations*, 06-096 C.M.R. ch. 140 § 1(C)(8), for a modification at the facility that has undergone NSR requirements or been processed through 06-096 C.M.R. ch. 115, the source must apply for an amendment to their Part 70 license within one year of commencing the proposed operations, as provided in 40 C.F.R. Part 70.5. PPLC submitted an application to incorporate the requirements of this NSR license into their Part 70 license on February 23, 2018, which is being processed concurrently with this license.

D. Annual Emissions

1. Emission Totals

PPLC shall be restricted to the following annual emissions, based on a calendar year total. The tons per year limits were calculated based on firing 250,000 gallons of distillate fuel per year fired in Boilers #3 and #4 combined, 100 hours per year of operation for each emergency generator, and 11.0 billion gallons per year of throughput in the storage tanks:

Total Licensed Annual Emissions for the Facility
Tons/year
 (used to calculate the annual license fee)

	PM	PM₁₀	SO₂	NO_x	CO	VOC
Boilers #3 and #4	1.40	1.40	0.03	2.50	0.63	0.03
Emergency Generators	0.03	0.03	0.01	0.80	0.17	0.07
Storage Tanks	---	---	---	---	---	219.9
Total TPY	1.4	1.4	0.1	3.3	0.8	220.0

Pollutant	Tons/year
Single HAP	9.9
Total HAP	24.9

2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans*, 40 C.F.R. Part 52, Subpart A, § 52.21, *Prevention of Significant Deterioration of Air Quality* rule. Greenhouse gases, as defined in 06-096 C.M.R. ch. 100 are the aggregate group of the following gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO₂e).

The quantity of CO₂e emissions from this facility is less than 100,000 tons per year, based on the following:

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

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

III. AMBIENT AIR QUALITY ANALYSIS

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

Pollutant	Tons/Year
PM ₁₀	25
SO ₂	50
NO _x	50
CO	250

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

ORDER

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

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

The Department hereby grants New Source Review Minor Revision A-197-77-3-M pursuant to the preconstruction licensing requirements of 06-096 C.M.R. ch. 115 and subject to the specific conditions below. PPLC is also still subject to the requirements included in Air Emission License A-197-70-E-R (2/2/2015) and Air Emission License Amendment A-197-70-F-A (2/22/2018).

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

SPECIFIC CONDITIONS

(1) Boilers #3 and #4

A. Allowable Fuels

1. Boilers #3 and #4 are licensed to fire distillate fuel. [06-096 C.M.R. ch. 115, BPT]
2. Total fuel use for Boilers #3 and #4 combined shall not exceed 250,000 gallons per year of distillate fuel, on a calendar year total basis. [06-096 C.M.R. ch. 115, BPT]
3. Compliance shall be demonstrated by fuel use records kept on a monthly and calendar year total basis. [06-096 C.M.R. ch. 115, BPT]

B. Emissions shall not exceed the following:

Unit	Pollutant	lb/MMBtu	Origin and Authority
Boilers #3 & #4 [each]	PM	0.08	06-096 C.M.R. ch. 115, BPT

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

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boilers #3 & #4 [each]	1.68	1.68	0.03	3.00	0.75	0.03

DONE AND DATED IN AUGUSTA, MAINE THIS 9 DAY OF April, 2018.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Core for
PAUL MERCER, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 2/23/2018

Date of application acceptance: 2/23/2018

Date filed with the Board of Environmental Protection:

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

