

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

DEPARTMENT ORDER

Portland Pipe Line Corporation Cumberland County South Portland, Maine A-197-70-H-R

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

FINDINGS OF FACT

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

I. REGISTRATION

A. Introduction

FACILITY	Portland Pipe Line Corporation
LICENSE TYPE	Part 70 License Renewal
NAICS CODES	424710
NATURE OF BUSINESS	Petroleum Bulk Stations and Terminals
FACILITY LOCATION	30 Hill Street, South Portland, Maine

Portland Pipe Line Corporation (PPLC) is an existing petroleum storage facility that is licensed to operate 23 petroleum storage tanks used to store crude oil, two boilers, and an emergency generator.

PPLC has the potential to emit more than 50 ton per year (tpy) of volatile organic compounds (VOC); therefore, the source is classified as a major source for criteria pollutants.

PPLC does not have the potential to emit 10 tpy or more of a single hazardous air pollutant (HAP) or 25 tpy or more of combined HAP; therefore, the source is classified as an area source for HAP.

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B. Emission Equipment

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

Tank	Capacity	Product		Install
Number*	(gallons)	Stored	Tank Type	Date
Tank 1	5,796,000	Crude Oil	Floating Roof	1941
Tank 2	5,796,000	Crude Oil	Floating Roof	1941
Tank 3	6,300,000	Crude Oil	Floating Roof	1950
Tank 4	6,300,000	Crude Oil	Floating Roof	1950
Tank 5	6,300,000	Crude Oil	Floating Roof	1950
Tank 6	6,300,000	Crude Oil	Floating Roof	1950
Tank 8	5,670,000	Crude Oil	Floating Roof	1944
Tank 9	5,670,000	Crude Oil	Floating Roof	1944
Tank 10	5,880,000	Crude Oil	Floating Roof	1941
Tank 11	5,880,000	Crude Oil	Floating Roof	1941
Tank 12	5,880,000	Crude Oil	Floating Roof	1941
Tank 13	5,880,000	Crude Oil	Floating Roof	1941
Tank 18	11,256,000	Crude Oil	Floating Roof	1971
Tank 19	6,300,000	Crude Oil	Floating Roof	1953
Tank 20	6,300,000	Crude Oil	Floating Roof	1953
Tank 21	6,300,000	Crude Oil	Floating Roof	1955
Tank 22	6,300,000	Crude Oil	Floating Roof	1955
Tank 23	6,300,000	Crude Oil	Floating Roof	1960
Tank 24	6,300,000	Crude Oil	Floating Roof	1965
Tank 25	6,300,000	Crude Oil	Floating Roof	1965
Tank 26	11,256,000	Crude Oil	Floating Roof	1957
Tank 27	11,256,000	Crude Oil	Floating Roof	1966
Tank 28	11,256,000	Crude Oil	Floating Roof	1969

Bulk Petroleum Storage Tanks

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*Tanks 7, 14, 15, 16, and 17 do not exist. These number were used to refer to tanks that have long since been removed.

Equipment	Max. Heat Input Capacity (MMBtu/hr)	Max. Firing Rate (gal/hr)	Fuel Type, % sulfur	Manufacture Date	Stack #
Boiler #3	21	150	Distillate fuel, 0.0015%	1983	1
Boiler #4	21	150	Distillate fuel, 0.0015%	1983	1

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Generators

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	Max. Heat Input	Max. Firing			
Equipment	Capacity (MMBtu/hr)	Rate (gal/hr)	Output (kW)	Fuel Type, % sulfur	Manufacture Date
Pier 2 Emergency Generator	2.4	17.7	250	Distillate fuel, 0.0015%	2002

The previously licensed Portable Emergency Generator is considered a portable (not stationary) engine used for maintenance and emergency purposes only. Therefore, this unit is not considered a stationary emissions unit.

PPLC has additional insignificant activities which do not need to be listed in the emission equipment tables above. The list of insignificant activities can be found in the Part 70 license application and in Appendix B of *Part 70 Air Emission License Regulations*, 06-096 C.M.R. ch. 140.

C. Acronyms and Units of Measure

AGL	Above Ground Level
ASTM	American Society for Testing and Materials
BACT	Best Available Control Technology
BPT	Best Practical Treatment
CAA	Clean Air Act
CFCs	Chlorofluorocarbons
C.F.R.	Code of Federal Regulations
C.M.R.	Code of Maine Rules
САМ	Compliance Assurance Monitoring
CEMS	Continuous Emissions Monitoring System
СО	Carbon Monoxide
CO ₂ e	Carbon Dioxide equivalent
COMS	Continuous Opacity Monitoring System
EPA or US EPA	United States Environmental Protection Agency
gal/hr	gallon per hour
GHG	Greenhouse Gases
НАР	Hazardous Air Pollutants
lb	pound
lb/hr	pounds per hour
lb/MMBtu	pounds per million British Thermal Units
M.R.S.	Maine Revised Statutes
MMBtu	Million British Thermal Units
MMBtu/hr	million British Thermal Units per hour

NESHAP	National Emissions Standards for Hazardous Air Pollutants
NO _x	Nitrogen Oxides
NSPS	New Source Performance Standards
NSR	New Source Review
PM	Particulate Matter less than 100 microns in diameter
PM ₁₀	Particulate Matter less than 10 microns in diameter
PM _{2.5}	Particulate Matter less than 2.5 microns in diameter
ppmdv	parts per million on a dry volume basis
RACT	Reasonably Available Control Technology
RICE	Reciprocating Internal Combustion Engine
SO_2	Sulfur Dioxide
tpy	ton per year
VOC	Volatile Organic Compounds

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D. Definitions

<u>Crude Oil</u> means a naturally occurring, unrefined petroleum product comprised of a mixture of liquid hydrocarbons and small amounts of nitrogen, sulfur, and oxygen. Gasoline, distillate fuel, residual fuels, and liquid asphalt are produced from the fractional distillation of crude oil.

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.

<u>Portable or Non-Road Engine</u> means an internal combustion engine which is portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. This definition does NOT include engines which remain or will remain at a location (excluding storage locations) for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. <u>A location is any single site</u> at a building, structure, facility, or installation. Any engine that replaces an engine at a location and that is intended to perform the same or similar function as the engine replaced will be included in calculating the consecutive time period.

An engine is <u>not</u> a non-road (portable) engine if it remains or will remain at a location for more than 12 consecutive months or for a shorter period of time if sited at a seasonal source. A seasonal source is a source that remains in a single location for two years or more and which operates for fewer than 12 months in a calendar year. If an engine operates at a seasonal source for one entire season, the engine does not meet the criteria of a non-road (portable) engine and is subject to applicable stationary engine requirements.

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<u>*Records*</u> or <u>*Logs*</u> mean either hardcopy or electronic records.

E. Application Classification

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

The application for PPLC does not include the licensing of increased emissions or the installation of new or modified equipment; therefore, the license is considered to be a Part 70 License renewal issued under *Part 70 Air Emission License Regulations*, 06-096 Code of Maine Rules (C.M.R.) ch. 140.

F. Facility Description

PPLC operates a petroleum storage facility in South Portland. The facility consists of 23 petroleum storage tanks used to store crude oil, two boilers for preventing ice and snow buildup on the tanks during the winter months, and an emergency generator, as well as a pier for docking tanker vessels in Portland Harbor and insignificant activities. The facility has historically handled a broad array of crude oil having a wide range of characteristics, including with respect to maximum true vapor pressure. The facility does not propose to change the types of crude oil it handles.

G. General Facility Requirements

PPLC 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.

Citation	Requirement Title
06-096 C.M.R. ch. 101	Visible Emissions Regulation
06-096 C.M.R. ch. 102	Open Burning
06-096 C.M.R. ch. 103	Fuel Burning Equipment Particulate Emission Standard
06-096 C.M.R. ch. 106	Low Sulfur Fuel Regulation
06-096 C.M.R. ch. 109	Emergency Episode Regulations
06-096 C.M.R. ch. 110	Ambient Air Quality Standards
06-096 C.M.R. ch. 116	Prohibited Dispersion Techniques
06-096 C.M.R. ch. 117	Source Surveillance – Emissions Monitoring
06-096 C.M.R. ch. 134	Reasonably Available Control Technology for Facilities that Emit
	Volatile Organic Compounds
06-096 C.M.R. ch. 137	Emission Statements
06-096 C.M.R. ch. 140	Part 70 Air Emission License Regulations
06-096 C.M.R. ch. 143	New Source Performance Standards

Citation	Requirement Title
06-096 C.M.R. ch. 144	National Emission Standards for Hazardous Air Pollutants
40 C.F.R. Part 60,	Standards of Performance for Stationary Compression Ignition
Subpart IIII	Internal Combustion Engines
40 C.F.R. Part 63,	National Emission Standards for Hazardous Air Pollutants for
Subpart ZZZZ	Stationary Reciprocating Internal Combustion Engines
40 C.F.R. Part 63,	National Emission Standards for Hazardous Air Pollutants for
Subpart JJJJJJ	Industrial, Commercial, and Institutional Boilers Area Sources
40 C.F.R. Part 70	State Operating Permit Programs

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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 *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 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 emissions 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 C.M.R. ch. 138 (NO_x RACT), is not applicable to PPLC because this facility does not have the potential to emit quantities of NO_x equal to or greater than 100 tons/year.

C. VOC RACT (Reasonably Available Control Technology)

Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds, 06-096 C.M.R. ch. 134 (VOC RACT), is applicable to sources that have the potential to emit quantities of VOC equal to or greater than 40 tons/year from non-exempt equipment.

VOC RACT for PPLC's tanks was addressed in Air Emission License A-197-70-C-R, issued 4/16/2008. In accordance with 06-096 C.M.R. ch. 134 § 3(A)(1), Option A, PPLC operates and maintains external floating roofs with primary seals which limit VOC emissions such that the total VOC emissions do not exceed, on a daily basis, 15% of the

uncontrolled daily VOC emissions. The VOC RACT requirements are incorporated in this renewal.

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D. Mandatory Greenhouse Gas (GHG) Reporting

Federal regulation *Mandatory Greenhouse Gas Reporting*, 40 C.F.R. Part 98, is applicable to some facilities as addressed in *General Provisions, Who must report?*, 40 C.F.R. § 98.2. These are not considered "applicable requirements" for the purposes of Part 70 licenses. Therefore, this information is presented for informational purposes only.

E. Compliance Assurance Monitoring (CAM)

Compliance Assurance Monitoring, 40 C.F.R. Part 64, 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% of the major source threshold (50 tons/year for VOC and 100 tpy for any other pollutant).

Although the floating roofs and primary seals on the petroleum storage tanks are intended to limit emissions of VOC, they are considered passive control measures that do not meet the definition of *control device* contained in 40 C.F.R. Part 64.1, shown below (emphasis added).

Control device means equipment, other than inherent process equipment, that is used to destroy or remove air pollutant(s) prior to discharge to the atmosphere. The types of equipment that may commonly be used as control devices include, but are not limited to, fabric filters, mechanical collectors, electrostatic precipitators, inertial separators, afterburners, thermal or catalytic incinerators, adsorption devices (such as carbon beds), condensers, scrubbers (such as wet collection and gas absorption devices), selective catalytic or non-catalytic reduction systems, flue gas recirculation systems, spray dryers, spray towers, mist eliminators, acid plants, sulfur recovery plants, injection systems (such as water, steam, ammonia, sorbent or limestone injection), and combustion devices independent of the particular process being conducted at an emissions unit (e.g., the destruction of emissions achieved by venting process emission streams to flares, boilers or process heaters). For purposes of this part, a control device does not include passive control measures that act to prevent pollutants from forming, such as the use of seals, lids, or roofs to prevent the release of pollutants, use of lowpolluting fuel or feedstocks, or the use of combustion or other process design features or characteristics. If an applicable requirement establishes that particular equipment which otherwise meets this definition of a control device does not constitute a control device as applied to a particular pollutant-specific emissions unit, then that definition shall be binding for purposes of this part.

There are no other emission units at the facility that utilize a control device to meet an emission standard and there are no pollutants, other than VOC, with potential uncontrolled

emissions greater than the major source threshold. Therefore, there are no units at this facility subject to CAM requirements.

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F. Fuel Sulfur Content Requirements

PPLC is licensed to fire distillate fuel. With limited exceptions, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm) pursuant to 38 M.R.S. § 603-A(2)(A)(3). Therefore, the distillate fuel purchased or otherwise obtained for use at this facility shall not exceed 0.0015% by weight (15 ppm).

G. Boilers #3 and #4

Boilers #3 and #4 are each Cleaver Brooks, model CB 500-60#, which were manufactured and installed in 1983. Each boiler has a heat input capacity of 21 MMBtu/hr and fires distillate fuel. Boilers #3 and #4 are operated in the winter months as needed to melt ice and snow buildup on the external floating roofs. They typically operate less than 100 hours per year each.

Emissions from Boilers #3 and #4 exit through a combined stack, Stack #1, which has an inside diameter of 34 inches and above ground level (AGL) height of 50 feet.

1. Fuel Limit and Capacity Factor

Boilers #3 and #4 are subject to a federally enforceable fuel limit of 250,000 gal/year for both boilers combined established through BACT in A-197-77-3-M (4/9/2018). This limit is equivalent to slightly less than 10% annual capacity for both boilers combined, but is not sufficient to ensure an individual boiler remains below an annual capacity factor of 10%. Therefore, in addition to the annual fuel limit mentioned above, PPLC has requested a federally enforceable operating limit of 876 hours per year for each boiler. This will ensure neither boiler is capable of exceeding an annual capacity factor of 10%, qualifying them as *limited-use boilers* as defined by 40 C.F.R. Part 63, Subpart JJJJJJ.

2. Visible Emissions

Stack #1 is subject to the following visible emissions standard pursuant to *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101.

Visible emissions from Stack #1 shall not exceed an opacity of 20% on a 6-minute block average basis. $[06-096 \text{ C.M.R. ch. } 101, \S\S 4(A)(2) \text{ and } 4(D)]$

The Department has determined that this standard is more stringent than the limit previously established through BPT. The visible emission limit has been streamlined

to the more stringent limit and only this more stringent limit shall be included in the Order of this air emission license.

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3. New Source Performance Standards (NSPS)

Due to their age, Boilers #3 and #4 are not subject to the New Source Performance Standards (NSPS) titled Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, 40 C.F.R. Part 60, Subpart Dc. These standards apply to steam generating units with a heat input capacity of 10 MMBtu/hr or more that are constructed after June 9, 1989.

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

Boilers #3 and #4 are not subject to National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 C.F.R. Part 63, Subpart DDDDD, because PPLC is not a major source of HAP.

Boilers #3 and #4 are subject to National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources, 40 C.F.R. Part 63, Subpart JJJJJJ. These units are considered existing oil-fired limiteduse boilers rated more than 10 MMBtu/hr. [40 C.F.R. §§ 63.11193 and 63.11195] Should PPLC amend this license in the future to remove the 876 hr/year operation restriction, PPLC must provide EPA notice within 15 days of such change in accordance with 40 C.F.R. § 63.9(j).

PPLC shall comply with all requirements of 40 C.F.R. Part 63, Subpart JJJJJJ, applicable to Boilers #3 and #4 including, but not limited to, the following:

- a. Notifications and Work Practice Requirements
 - (1) Boiler Tune-Up Program
 - (i) A boiler tune-up program shall be implemented. [40 C.F.R. § 63.11223]
 - (ii) Each tune-up shall be conducted at a frequency specified by the rule and based on the size, age, and operations of the boiler. See chart below:

	Tune-Up
Boiler Category	Frequency
Limited-use (see definition § 63.11237)	Every 5 years
[40 C E P & 63 11223(a) and Table 2]	

[40 C.F.R. (63.11223)(a) and 1able 2]

- (iii)The boiler tune-up program, conducted to demonstrate continuous compliance, shall be performed as specified below:
 - 1. <u>As applicable</u>, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted for up to 72 months from the previous inspection. [40 C.F.R. § 63.11223(b)(1)]
 - 2. Inspect the flame pattern, <u>as applicable</u>, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 C.F.R. § 63.11223(b)(2)]
 - 3. Inspect the system controlling the air-to-fuel ratio, <u>as applicable</u>, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted for up to 72 months from the previous inspection. [40 C.F.R. § 63.11223(b)(3)]
 - 4. Optimize total emissions of CO, consistent with manufacturer's specifications. [40 C.F.R. § 63.11223(b)(4)]
 - Measure the concentration in the effluent stream of CO in parts per million by volume (ppmv), and oxygen in volume percent, before and after adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer. [40 C.F.R. § 63.11223(b)(5)]
 - If a unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of start-up.
 [40 C.F.R. § 63.11223(b)(7)]
- (iv)<u>Tune-Up Report</u>: A tune-up report shall be maintained onsite and, if requested, submitted to EPA or the Department. The report shall contain the following information:
 - 1. The concentration of CO in the effluent stream (ppmv) and oxygen (volume percent) measured at high fire or typical operating load both **before** and **after** the boiler tune-up; and
 - 2. A description of any corrective actions taken as part of the tune-up of the boiler.

[40 C.F.R. § 63.11223(b)(6)]

(2) Compliance Report

A compliance report shall be prepared by March 1^{st} every five years which covers the previous five calendar years. The report shall be maintained by the source and submitted to the Department and/or to the EPA upon request. The report must include the items contained in §§ 63.11225(b)(1) and (2), including the following: [40 C.F.R. § 63.11225(b)]

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- (i) Company name and address;
- (ii) A statement of whether the source has complied with all the relevant requirements of this Subpart;

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- (iii)A statement certifying truth, accuracy, and completeness of the notification and signed by a responsible official and containing the official's name, title, phone number, email address, and signature;
- (iv)The following certifications, as applicable:
 - 1. "This facility complies with the requirements in 40 C.F.R. § 63.11223 to conduct tune-ups of each boiler in accordance with the frequency specified in this Subpart."
 - 2. "No secondary materials that are solid waste were combusted in any affected unit."
 - 3. "This facility complies with the requirement in §§ 63.11214(d) and 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."
- (3) Energy Assessment

Limited-use boilers (such as Boilers #3 and #4) are not subject to the requirement to perform an energy assessment. [40 C.F.R. § 63.11223(f)]

b. Recordkeeping

Records shall be maintained consistent with the requirements of 40 C.F.R. Part 63, Subpart JJJJJJ, including the following [40 C.F.R. § 63.11225(c)]:

- (1) Copies of notifications and reports with supporting compliance documentation;
- (2) Identification of each boiler, the date of tune-up, procedures followed for tuneup, and the manufacturer's specifications to which the boiler was tuned;
- (3) Records of the occurrence and duration of each malfunction of each applicable boiler; and
- (4) Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.

Records shall be in a form suitable and readily available for expeditious review.

5. Emission Limits and Streamlining

For each of Boilers #3 and #4, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested (* denotes a request for streamlining), and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

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Dellerteret	Applicable Emission		Licensed Emission	
Pollutant	Standards	Urigin and Authority	Limits	
	0.12 lb/MMBtu	06-096 C.M.R. ch. 103, § 2(B)(1)(a)		
РМ	0.08 lb/MMBtu	06-096 C.M.R. ch. 115, BACT (A-197-77-3-M, 4/9/2018)	0.08 lo/mmBtu *	
	1.68 lb/hr	06-096 C.M.R. ch. 115, BACT (A-197-77-3-M, 4/9/2018)	1.68 lb/hr	
PM ₁₀	1.68 lb/hr	06-096 C.M.R. ch. 115, BACT (A-197-77-3-M, 4/9/2018)	1.68 lb/hr	
SO ₂	0.03 lb/hr	06-096 C.M.R. ch. 115, BACT (A-197-77-3-M, 4/9/2018)	0.03 lb/hr	
NO _x	3.00 lb/hr	06-096 C.M.R. ch. 115, BACT (A-197-77-3-M, 4/9/2018)	3.00 lb/hr	
СО	0.75 lb/hr	06-096 C.M.R. ch. 115, BACT (A-197-77-3-M, 4/9/2018)	0.75 lb/hr	
VOC	0.03 lb/hr	06-096 C.M.R. ch. 115, BACT (A-197-77-3-M, 4/9/2018)	0.03 lb/hr	
Visible Emissions	As described earlier in this license.			

6. Emission Limit Compliance Methods

Compliance with the emission limits associated with Boilers #3 and #4 shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

7. Periodic Monitoring

PPLC shall record data and maintain records for the following periodic monitoring values for Boilers #3 and #4.

a. Hours of operation for each boiler on a monthly and calendar year basis; [06-096 C.M.R ch. 137 and 06-096 C.M.R. ch. 140, BPT]

 b. Distillate fuel usage for each boiler on a monthly and calendar year basis; [06-096 C.M.R. ch. 137 and 06-096 C.M.R. ch. 115, BACT (A-197-77-3-M, 4/9/2018)]

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- c. Sulfur content (% by weight) of the distillate fuel fired; [06-096 C.M.R. ch. 137] and
- d. Recordkeeping in accordance with the requirements of 40 C.F.R. Part 63, Subpart JJJJJJ (described earlier).
- 8. Parameter Monitors

There are no Parameter Monitors required for Boilers #3 and #4.

9. CEMS and COMS

There are no continuous emission monitoring systems (CEMS) or continuous opacity monitoring systems (COMS) required for Boilers #3 and #4.

H. Pier 2 Emergency Generator

PPLC operates one stationary emergency generator (Pier 2 Emergency Generator). It is a generator set consisting of an engine and an electrical generator. The Pier 2 Emergency Generator has an engine rated at 2.4 MMBtu/hr which fires distillate fuel. It was manufactured in 2002.

1. Visible Emissions

The Pier 2 Emergency Generator is subject to the following visible emissions standard pursuant to *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101.

Visible emissions from the Pier 2 Emergency Generator shall not exceed an opacity of 20% on a six-minute block average basis, except during periods of startup. During periods of startup, the engine must meet the normal operating visible emissions standard or the following work practice standards and alternative visible emissions standard. Use of the following work practice standards and alternative visible emissions standard in lieu of the normal operating visible emissions standard is limited to no more than once per day.

- a. The duration of the startup shall not exceed 30 minutes per event;
- b. Visible emissions shall not exceed 50% opacity on a six-minute block average basis; and
- c. PPLC shall keep records of the date, time, and duration of each startup event. $[06-096 \text{ C.M.R. ch. } 101, \S 4(A)(4)]$

Note: This does not limit the engine to one startup per day. It only limits the use of the alternative emission standard to once per day.

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2. New Source Performance Standards (NSPS)

Since it was manufactured prior to April 1, 2006, the Pier 2 Emergency Generator is not subject to the New Source Performance Standards (NSPS) *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)*, 40 C.F.R. Part 60, Subpart IIII. [40 C.F.R. § 60.4200]

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

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines 40 C.F.R. Part 63, Subpart ZZZZ, is applicable to the Pier 2 Emergency Generator. The unit is considered an existing, emergency stationary reciprocating internal combustion engine (RICE) at an area HAP source and is 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 Engine Designation and Operating Criteria

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

(1) Emergency Situation Operation (On-Site)

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

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

(2) Non-Emergency Situation Operation

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

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- (i) An emergency engine may be operated for a maximum of 100 hours per calendar year for maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government; the manufacturer; the vendor; the regional transmission organization or equivalent balancing authority and transmission operator; or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE more than 100 hours per calendar year.
- (ii) An emergency engine may be operated for up to 50 hours per calendar year for other non-emergency situations. However, these operating hours are counted as part of the 100 hours per calendar year operating limit described in paragraph (2) and (2) (i) above.

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

The Pier 2 Emergency Generator shall be limited to the usage outlined in 40 C.F.R. § 63.6640(f) and therefore may be classified as an existing emergency stationary RICE as defined in 40 C.F.R. Part 63, Subpart ZZZZ. Failure to comply with all of the requirements listed in 40 C.F.R. § 63.6640(f) may cause this engine to not be considered an emergency engine and therefore subject to all applicable requirements for non-emergency engines.

- b. 40 C.F.R. Part 63, Subpart ZZZZ, Requirements
 - (1) Operation and Maintenance Requirements [40 C.F.R. § 63.6603(a) and Table 2(d)]

	Operating Limitations
Compression ignition	- Change oil and filter every 500 hours of operation or
(distillate fuel) units:	annually, whichever comes first;
Pier 2 Emergency	- Inspect the air cleaner every 1000 hours of operation
Generator	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.

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The engine shall be operated and maintained according to the manufacturer's emission-related written instructions. [40 C.F.R. § 63.6625(e)]

(2) Optional Oil Analysis Program

PPLC 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, PPLC 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 C.F.R.§ 63.6625(i)]

- (3) Non-Resettable Hour Meter Requirement
 A non-resettable hour meter shall be installed and operated on the engine.
 [40 C.F.R. § 63.6625(f)]
- (4) Startup Idle and Startup Time Minimization Requirements 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.
 [40 C.F.R. § 63.6625(h) and 40 C.F.R. Part 63, Subpart ZZZZ Table 2d]
- (5) Annual Time Limit for Maintenance and Testing

As an emergency engine, the unit shall be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). [40 C.F.R. § 63.6640(f)]

(6) Recordkeeping

PPLC shall keep records that include maintenance conducted on the engine and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the number of hours the unit operated for emergency purposes, the number of hours the unit operated for non-emergency purposes, and the reason the engine was in operation during each time. [40 C.F.R. § 63.6655(f)]

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4. Emission Limits and Streamlining

For the Pier 2 Emergency Generator, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested ("*" denotes a request for streamlining), and the applicable emission limits can be found below. Limits are on a 1-hour block average basis unless otherwise stated.

	Applicable Emission		Licensed Emission		
Pollutant	Standards	Origin and Authority	Limits		
		06-096 C.M.R. ch. 140, BPT			
PM	0.29 lb/hr	(A-197-70-E-R, 2/2/2015)	0.29 lb/hr		
		Enforceable by State-only			
		06-096 C.M.R. ch. 140, BPT			
PM_{10}	0.29 lb/hr	(A-197-70-E-R, 2/2/2015)	0.29 lb/hr		
		Enforceable by State-only			
		06-096 C.M.R. ch. 140, BPT			
SO_2	0.01 lb/hr	(A-197-70-E-R, 2/2/2015)	0.01 lb/hr		
		Enforceable by State-only			
		06-096 C.M.R. ch. 140, BPT			
NO _x	10.67 lb/hr	(A-197-70-E-R, 2/2/2015)	10.67 lb/hr		
		Enforceable by State-only			
		06-096 C.M.R. ch. 140, BPT			
CO	2.30 lb/hr	(A-197-70-E-R, 2/2/2015)	2.30 lb/hr		
		Enforceable by State-only			
		06-096 C.M.R. ch. 140, BPT			
VOC	0.88 lb/hr	(A-197-70-E-R, 2/2/2015)	0.88 lb/hr		
		Enforceable by State-only			
Visible Emissions	As described earlier in th	is license			

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5. Emission Limit Compliance Methods

Compliance with the emission limits associated with the Pier 2 Emergency Generator shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

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6. Periodic Monitoring

PPLC shall record data and maintain records for the following periodic monitoring values for the Pier 2 Emergency Generator.

- a. Hours of operating time on a calendar year basis. [06-096 C.M.R. ch. 137]
- b. Log of the duration and reasons for all operating times as they occur. [40 C.F.R. § 63.6655(f)]
- c. Records of all maintenance conducted. [40 C.F.R. §§ 63.6655(e)]
- d. Sulfur content of the distillate fuel fired. [06-096 C.M.R. ch. 140, BPT]
- 7. Parameter Monitors

There are no Parameter Monitors required for the Pier 2 Emergency Generator.

8. CEMS and COMS

There are no CEMS or COMS required for the Pier 2 Emergency Generator.

I. Portable Engines

PPLC may operate portable engines on-site for maintenance and emergency-only purposes. Depending on their size and age, these engines may be subject to *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101, and *Fuel Burning Equipment Particulate Emission Standard*, 06-096 C.M.R. ch. 103.

Any engine which cannot meet the definition of "portable engine" as defined by this license may be subject to additional State and Federal regulations. A license amendment may be necessary for a portable engine to be reclassified as stationary.

J. Petroleum Storage Tanks

PPLC operates 23 aboveground petroleum storage tanks which are used to store crude oil before it is transferred to Canada via pipeline. All of the petroleum storage tanks are equipped with external floating roofs.

1. Tank Heating

These tanks are not considered "heated petroleum storage tanks" because heat is not being used to improve the flow characteristics of the product stored, but rather to prevent snow and ice buildup that could damage the floating roof. Tank warming is accomplished by either transferring warmer product into the tank directly from an arriving marine vessel or another warmer tank or by transferring product from one tank to another by pumping it through a heat exchanger located at the facility heating plant. Tanks are heated as needed in winter months from a temperature in the 30s °F to the 50s °F. The roof drain pipe runs through the tank, so keeping the product above 32 °F also prevents water from freezing in the roof drain, which could damage the roof drain pipe. Such minimal heating of the product while stored in external floating roof tanks is expected to have no impact on standing losses of VOC or HAP. Pumping of product between tanks will result in an increase in working losses, which will be accounted for in the facility's annual emissions inventory submitted pursuant to 06-096 C.M.R. ch. 137.

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2. Controls During Normal Operation

All of PPLC's petroleum storage tanks are equipped with external floating roofs. The roof rises and falls with the liquid level in the tank and is equipped with a flexible rim seal system (primary seals), which is attached to the deck perimeter and contacts the tank wall. The purpose of the floating roof and rim seal system is to reduce evaporative loss of the stored liquid. The seal system slides against the tank wall as the roof rises and falls with the liquid level in the tank. The floating deck is also equipped with deck fittings that penetrate the deck and serve operational functions.

3. Degassing of Petroleum Storage Tanks, Marine Vessels, and Transport Vessels, 06-096 C.M.R. ch. 170

PPLC's petroleum storage tanks are subject to the requirements of *Degassing of Petroleum Storage Tanks, Marine Vessels, and Transport Vessels,* 06-096 C.M.R. ch. 170. PPLC is a petroleum storage facility, as that term is defined in the rule, and the tanks store crude oil, which is an affected product under this rule.

PPLC shall comply with all requirements of 06-096 C.M.R. ch. 170 applicable to the petroleum storage tanks including, but not limited to, the following: **Enforceable by State-only**

- a. Control Requirements [06-096 C.M.R. ch. 170, § 4]
 - (1) When emptying and degassing a petroleum storage tank whose most recently stored product was crude oil, PPLC shall:
 - (i) To the extent practicable, empty the storage tank of product; and

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(ii) Exhaust the vapor space of the storage tank to a vapor control system designed to achieve a VOC control efficiency of at least 95% until the VOC concentration is less than 5,000 ppmv, measured as methane, or is 10% or less of the lower explosive limit (LEL), as methane, for at least one hour.

Compliance shall be demonstrated through continuous monitoring of the VOC concentration in the line between the storage tank being degassed and the vapor control device. $[06-096 \text{ C.M.R. ch. } 170, \S 7(B)]$

The probe inlet of the monitoring instrument shall be located in the line between the tank or vessel being degassed and the control device or other location as approved by the Department. [06-096 C.M.R. ch. 170, § 6]

The monitoring device shall be calibrated, maintained, and operated according to the manufacturer's instructions. $[06-096 \text{ C.M.R. ch. } 170, \S 7(A)]$

- (2) The intentional bypassing of a vapor control device used during degassing is prohibited. However, as appropriate, PPLC may temporarily remove for not longer than one hour a suitable tank fitting, such as a manway, to facilitate connection to the vapor control system.
- (3) The vapor control system used in the degassing process shall be free of liquid and vapor leaks. This includes, but is not limited to, the degassing equipment, vacuum truck, pumps, hoses, and connections.
- (4) Any visible or audible liquid or vapor leak originating from the vapor control device or other associated product recovery device shall be repaired as soon as possible.
- (5) PPLC shall comply with the following to control emissions from any sludge removed from a petroleum storage tank containing, or which most recently contained, crude oil. These requirements do not apply when sludge is immediately transferred (e.g., pumped) to a floating roof tank whose roof is not resting on its legs.

 (i) During sludge removal, PPLC shall vent emissions from the vessel receiving the sludge to a vapor control system designed to achieve a VOC control efficiency of at least 95%;

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- (ii) The removed sludge must be transported in containers that are vapor-tight and free of liquid leaks; and
- (iii)Until final disposal, removed sludge must be stored in containers that are vapor-tight and free of liquid leaks or in tanks that are vented to a vapor control system designed to achieve a VOC control efficiency of at least 95%.
- b. Inspection Requirements [06-096 C.M.R. ch. 170, §§ 5 and 6]

During a degassing event of a petroleum storage tank whose most recently stored product was crude oil, PPLC shall:

(1) At least once per calendar day, inspect the vapor control system for liquid and vapor leaks. To check for vapor leaks, the owner or operator shall use photo ionization detection (PID) technology or flame ionization detection (FID) technology.

Measurement of VOC concentrations shall be conducted in accordance with 40 C.F.R. Part 60, Appendix A, Method 21, using an appropriate analyzer calibrated with methane in accordance with the manufacturer's recommendations, at a distance of one inch (2.54 cm) or less from the source. Alternate test methods may be allowed upon written approval by the Department.

- (2) If a liquid or vapor leak is observed, degassing must be discontinued within two hours of leak observance unless the leak is repaired or discontinuing degassing would present an imminent safety hazard.
- c. During times the vapor control system is in use, PPLC shall monitor and record the operational parameters necessary to demonstrate the proper functioning of the vapor control system in accordance with the requirements of 06-096 C.M.R. ch. 170, § 7(C).
- d. Recordkeeping

PPLC shall maintain the following records for each degassing event and make them available to the Department upon request pursuant to 06-096 C.M.R. ch. 170, § 8:

(1) PPLC's contact person name and telephone number;

- (2) Storage tank capacity;
- (3) The product most recently stored in the storage tank prior to degassing;

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- (4) Volume (cubic feet) of vapor space degassed;
- (5) Type of vapor control system used;
- (6) Design control efficiency of the vapor control system;
- (7) Results of all liquid and vapor leak inspections and repairs conducted in accordance with the provisions of 06-096 C.M.R. ch. 170, § 5;
- (8) Results of testing conducted in accordance with 06-096 C.M.R. ch. 170, § 6;
- (9) Estimate of VOC emissions from the degassing event before control efficiency is applied (i.e., pre-control emissions); and
- (10) Estimate of VOC emissions from the degassing event after application of controls.
- 4. VOC RACT, 06-096 C.M.R. ch. 134

Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds, 06-096 C.M.R. ch. 134 (VOC RACT) is applicable to sources that have the potential to emit quantities of VOC equal to or greater than 40 tons/year.

In accordance with 06-096 C.M.R. ch. 134 § 3(A)(1), Option A, PPLC's use of external floating roofs and primary seals meets the requirements of 06-096 C.M.R. ch. 134 by controlling VOC emissions such that they do not exceed, on a daily basis, 15% of the uncontrolled daily VOC emissions.

5. Control of Petroleum Storage Facilities, 06-096 C.M.R. ch. 171

Although PPLC's petroleum storage tanks are capable of being heated, they are not considered "heated petroleum storage tanks" as that term is defined in 06-096 C.M.R. ch. 171. They are not fixed roof tanks, and they do not store residual oil or asphalt. Additionally, the tanks are not heated to keep the product in a liquid form but rather to prevent snow or ice build-up on the floating roof. Therefore, PPLC's petroleum storage tanks are not subject to the requirements specific to heated petroleum storage tanks contained in 06-096 C.M.R. ch. 171, §§ 4(B), 6(A), and 7(A).

PPLC's petroleum storage tanks do not have internal floating roofs. Therefore, they are not subject to the inspection requirements contained in 06-096 C.M.R. ch. 171, § 5(B).

6. New Source Performance Standards (NSPS)

All of the petroleum storage tanks were constructed prior to 1973, and none have been reconstructed or modified. Therefore, they are not subject to any of the following New Source Performance Standards:

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- 40 C.F.R. Part 60, Subpart K Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced after June 11, 1973, and Prior to May 19, 1978
- 40 C.F.R. Part 60, Subpart Ka Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction or Modification Commenced After May 18, 1978, and Prior to July 23, 1984
- 40 C.F.R. Part 60, Subpart Kb Standards of Performance for Volatile Orgainic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984
- 40 C.F.R. Part 60, Subpart Kc, New Source Performance Standards Review for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels)
- 7. Best Practical Treatment (BPT)

PPLC submitted an updated BPT analysis with the renewal application which found that use of floating roofs, primary seals, and the previously licensed operating, inspection, and monitoring requirements represents BPT for the Petroleum Storage Tanks. The use of additional secondary seals was considered. However, secondary seals are not as compatible with the petroleum products handled by PPLC as other petroleum products due to the relatively high wax characteristics. The tanks that do have secondary seals (Tanks 8 and 9) have experienced problems with the secondary seals displacing and depositing waxy petroleum residuals onto the roof surface causing excessive maintenance and generating a solid waste requiring disposal.

The Department agrees with this analysis and finds the following operating, inspection, and monitoring requirements represents BPT for the petroleum storage tanks. [06-096 C.M.R. ch. 140, BPT] **Enforceable by State-only**

- a. PPLC shall not exceed a throughput of 11.0 billion gallons per year of crude oil on a 12-month rolling total basis.
- b. Each petroleum storage tank shall be equipped, maintained, and operated as follows:
 - (1) There is an external floating roof and closure seal(s) between the roof edge and the tank wall;

(2) The external floating roof and closure seal(s) shall be maintained such that the cumulative area of gaps between the tank walls and primary seals does not exceed 212 square centimeters (cm²) per meter of tank diameter;

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- (3) The cover is uniformly floating on or above the liquid;
- (4) Visible holes, tears, or other openings in the surface of the cover discovered during monthly inspections shall be repaired within 15 days of their discovery. Any liquid accumulated on the cover from any such holes, tears, or openings in the cover shall be cleaned within 15 days of such discovery. Any leaks taking longer than 15 days to repair shall be reported to the Department, including a description of the leaking component and a schedule for conducting the repairs;
- (5) All detected holes, tears, or openings in the surface of the cover or seals (other than gaps created by the rising and lowering of the tank roof) discovered during the annual inspection shall be repaired by May 31st each year, or if repair by May 31st is not possible, the leak shall be reported to the Department within 48 hours of such determination including a description of the leaking component and a schedule for conducting the repairs;
- (6) All petroleum storage tank openings, except automatic bleeder vents, rim space vents, and leg sleeves are equipped with a cover, seal, or lid which is to be maintained in a closed position at all times except for when the device (i.e., tank opening) is in actual use;
- (7) All openings in the external floating roof, except for automatic bleeder vents, rim space vents, and leg sleeves, are to provide a projection below the liquid surface;
- (8) All automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports;
- (9) All rim vents are to be set to open only when the roof is being floated off leg supports or at the manufacturer's recommended setting;
- (10) There are no visible or audible vapor leaks in the petroleum storage tanks or the related transfer piping; and
- (11) Except in an emergency, PPLC shall provide written notice to the Department at least seven days prior to landing the roof of a petroleum storage tank, i.e., allowing the roof to rest upon its support legs. In case of an emergency, PPLC shall notify the Department within 48 hours of the roof landing including the reason for the emergency.
- c. PPLC shall comply with the following source inspection requirements for the petroleum storage tanks:
 - (1) Monthly and annual inspections shall be conducted on all petroleum storage tank covers, seals, transfer piping and fittings for the following:
 - (i) The cover is uniformly floating on or above the liquid;
 - (ii) Visible holes, tears, or other openings in the surface of the cover and any resulting liquid accumulated on the cover; and

- (iii)Any visible or audible vapor leaks in the petroleum storage tanks or related transfer piping.
- (2) Monthly visual inspections shall be conducted on petroleum storage tank covers, seals, transfer piping, and fittings.

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- (3) Detailed inspections shall be conducted annually during April or May (after the annual cleaning of the tank seals) for potential sources of fugitive VOC emissions, including covers, seals, transfer piping, and fittings.
- (4) Discovery of leaks, holes, or tears in the seals during the routine monthly or annual inspections does not constitute a violation. A violation occurs only if such leaks, holes, or tears discovered are in excess of 212 cm² per meter of tank diameter and are not repaired within 15 days of discovery for routine inspections or by May 31st of each year for annual inspections or by a schedule approved by the Department.
- d. PPLC shall notify the Department at least seven days in advance of any planned degassing event, and as soon as possible for any unplanned degassing event, subject to the requirements of 06-096 C.M.R. ch. 170, and provide the following information:
 - (1) Identification of the tank(s) to be degassed;
 - (2) Date(s) when degassing will begin and anticipated duration;
 - (3) A description of the control device to be used and documentation of its control effectiveness from the manufacturer; and
 - (4) The parameters to be monitored during degassing.
- 8. Periodic Monitoring

PPLC shall record data and maintain records for the following periodic monitoring values for the petroleum storage tanks:

- a. Inspection log documenting routine monthly visual and annual inspections of covers, seals, transfer piping, and fittings.
- b. Inspection log documenting any detected leaks, holes, tears, or openings in the surface of the cover (other than gaps created by the rising and lowering of the tank roof) and the corrective action taken.

[06-096 C.M.R. ch. 140, BPT] Enforceable by State-only

K. Control of Petroleum Storage Facilities, 06-096 C.M.R. ch. 171

PPLC is a petroleum storage facility as that term is defined in 06-096 C.M.R. ch. 171. Following are applicable requirements of 06-096 C.M.R. ch. 171 not addressed elsewhere. **Enforceable by State-only**

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1. Inspections Using Optical Gas Imaging

PPLC shall perform inspections in accordance with the following:

- a. At least once per calendar quarter, PPLC shall conduct an inspection survey of each tank subject to the inspection surveys under 06-096 C.M.R. ch. 171 (i.e., each non-exempt tank) and facility fugitive emissions component using optical gas imaging equipment. [06-096 C.M.R. ch. 171, § 5(A)(1)]
- b. The optical gas imaging equipment used must meet the following specifications as verified by the manufacturer:
 - (1) Capable of imaging gases in the spectral range for benzene; and
 - (2) Capable of imaging a gas that is half methane and half propane at a concentration of 10,000 ppm at a flow rate of ≤ 60 grams per hour from a quarter inch diameter orifice.

[06-096 C.M.R. ch. 171, § 5(A)(2)]

- c. PPLC was required to submit an optical gas imaging leak detection and repair plan by October 3, 2023. [06-096 C.M.R. ch. 171, § 5(A)(3)] This plan was submitted on October 2, 2023.
- d. If visible emissions are observed in a fugitive emissions component using optical gas imaging equipment, within two calendar days PPLC shall determine whether a leak, as defined by 06-096 C.M.R. ch. 171, is present by using photo ionization detection (PID) technology or flame ionization detection (FID) technology. Alternatively, PPLC may elect to presume that a leak is present without further confirmation. If a leak is determined or presumed to be present, PPLC shall initiate corrective action and repair the leak within 15 calendar days.
 - (1) If the presence of a leak cannot be confirmed due to safety concerns or physical constraints, PPLC shall presume the leak to be confirmed and initiate corrective action and repair the leak within 15 calendar days.
 - (2) If a leak cannot be repaired within 15 days, PPLC shall notify the Department of the leak, the reason for the delay, and the expected date of the repair. PPLC

shall promptly notify the Department of the date that the leak is successfully repaired. A fugitive emissions component is considered repaired when the optical gas imaging equipment shows no indication of visible emissions or there is no longer indication of a leak as that term is defined in this regulation under normal use conditions.

[06-096 C.M.R. ch. 171, § 5(A)(5)]

- e. For all quarterly inspections conducted using optical gas imaging equipment PPLC shall keep the following records:
 - (1) The date of the inspection;
 - (2) Identification and description of the equipment and areas inspected;

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- (3) A description of any leaks detected;
- (4) An electronic recording of the optical gas imaging equipment images; and
- (5) A description of any resulting corrective actions or repairs and the dates they were made.

[06-096 C.M.R. ch. 171, § 7(B)]

2. Fenceline Monitoring

PPLC is subject to the fenceline monitoring requirements in 06-096 C.M.R. ch. 171, \S 6(B), because it is a petroleum storage facility that operates external floating roof tanks. Therefore, PPLC shall conduct sampling along the facility property boundary and analyze the samples in accordance with 40 C.F.R. Part 63, Appendix A, Methods 325A and 325B, as specified below.

- a. The monitoring program shall be designed and operated by a qualified, independent, third-party entity. [06-096 C.M.R. ch. 171, § 6(B)(1)]
- b. The target analytes shall be benzene, ethylbenzene, toluene, and xylenes. [06-096 C.M.R. ch. 171, § 6(B)(2)]
- c. A maximum 14-day sampling period shall be used except under extenuating circumstances as described below. Upon approval by the Department, PPLC may use a shorter sampling period.

When extenuating circumstances do not permit safe deployment or retrieval of passive samplers (e.g., extreme weather, power failure), sampler placement or retrieval earlier or later than the prescribed schedule is allowed but must occur as soon as safe access to sampling sites is possible. [06-096 C.M.R. ch. 171, § 6(B)(3)] d. PPLC was required to submit a site-specific fenceline monitoring plan prepared by a qualified, independent, third-party entity by November 3, 2023. [06-096 C.M.R. ch. 171, § 6(B)(4)] This plan was submitted on November 1, 2023.

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- e. No later than six months after approval of the site-specific fenceline monitoring plan, PPLC shall commence monitoring in accordance with 06-096 C.M.R. ch. 171 through use of a qualified, independent, third-party entity. [06-096 C.M.R. ch. 171, § 6(B)(5)]
- f. PPLC shall keep the following records:
 - (1) Coordinates of all passive monitors and the meteorological station used. Coordinates shall be determined using a method with an accuracy of three meters or less;
 - (2) Average ambient temperature and barometric pressure measurements for the sampling period;

(3) Individual sample results; and

(4) Method detection limit for each sample.

[06-096 C.M.R. ch. 171, § 7(C)]

- g. PPLC shall submit a report to the Department for each calendar quarter with the following information. Each quarterly report must be electronically submitted no later than 45 days after the end of the reporting period.
 - (1) Facility name and address;
 - (2) Year and reporting quarter (i.e., Quarter 1, Quarter 2, Quarter 3, or Quarter 4).
 - (3) For each passive monitor:
 - (i) The latitude and longitude location coordinates;
 - (ii) The sampler name; and
 - (iii)Identification of the type of sampler (e.g., regular monitor, duplicate, field blank, etc.)
 - (4) The beginning and ending dates for each sampling period;
 - (5) Individual sample results in units of micrograms per cubic meter $(\mu g/m^3)$ for each monitor for each sampling period that ends during the reporting period. Results below the method detection limit shall be flagged as such and reported at the method detection limit; and
 - (6) Meteorological data collected during each sampling period, including wind speed and direction.

[06-096 C.M.R. ch. 171, § 8]

L. Crude Oil and Natural Gas Facilities

The following New Source Performance Standards are not applicable to PPLC because all liquids received by this facility have already passed the point of custody transfer to a crude oil transmission pipeline.

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- Standards of Performance for Crude Oil and Natural Gas Facilities for Which Construction, Modification, or Reconstruction Commenced After August 23, 2011, and on or Before September 18, 2015, 40 C.F.R. Part 60, Subpart OOOO;
- Standards of Performance for Crude Oil and Natural Gas Facilities for Which Construction, Modification, or Reconstruction Commenced After September 18, 2015, and on or Before December 6, 2022, 40 C.F.R. Part 60, Subpart OOOOa;
- Standards of Performance for Crude Oil and Natural Gas Facilities for Which Construction, Modification, or Reconstruction Commenced After December 6, 2022, 40 C.F.R. Part 60, Subpart OOOOb; and
- Emissions Guidelines for Greenhouse Gas Emissions from Existing Crude Oil and Natural Gas Facilities, 40 C.F.R. Part 60, Subpart OOOOc.

M. Parts Washers

The parts washers used at PPLC do not contain VOC above 5% by weight; therefore, they are not subject to *Solvent Degreasers*, 06-096 C.M.R. ch. 130.

N. Fugitive Emissions

PPLC shall not cause emissions of any fugitive dust during any period of construction, reconstruction, or operation without taking reasonable precautions. Such reasonable precautions shall be included in the facility's continuing program of best management practices for suppression of fugitive particulate matter. See 06-096 C.M.R. ch. 101, § 4(C), for a list of potential reasonable precautions.

PPLC shall not cause or allow visible emissions within 20 feet of ground level, measured as any level of opacity and not including water vapor, beyond the legal boundary of the property on which such emissions occur. Compliance with this standard shall be determined pursuant to 40 C.F.R. Part 60, Appendix A, Method 22.

O. Emission Statements

PPLC is subject to emissions inventory requirements contained in *Emission Statements*, 06-096 C.M.R. ch. 137.

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1. Recordkeeping Requirements

PPLC shall maintain the following records in order to comply with this rule:

- a. The amount of distillate fuel fired in Boilers #3 and #4 and the Pier 2 Emergency Generator on a monthly basis;
- b. The sulfur content of the distillate fuel fired in Boilers #3 and #4 and the Pier 2 Emergency Generator;
- c. Hours each emission unit was active or operating on a monthly basis; and
- d. Records needed to calculate the facility-wide VOC and HAP emissions on a calendar year total basis including:
 - (1) Monthly throughput for each petroleum storage tank;
 - (2) Equipment and product information necessary to calculate emissions from the petroleum storage tanks;
 - (3) Process and product information necessary to calculate emissions from tank maintenance operations;
 - (4) Equipment and product information necessary to calculate emissions from facility piping in accordance with EPA's *Protocol for Equipment Leak Emission Estimates*.
- 2. HAP Reporting

Every third year, PPLC shall report to the Department emissions of hazardous air pollutants as required pursuant to 06-096 C.M.R. ch. 137, § (3)(C). The next report is due no later than May 15, 2027, for emissions occurring in calendar year 2026. The Department will use these reports to calculate and invoice for the applicable annual air quality surcharge for the subsequent three billing periods. PPLC shall pay the annual air quality surcharge, calculated by the Department based on these reported emissions of hazardous air pollutants, by the date required in Title 38 M.R.S. § 353-A(3). [38 M.R.S. § 353-A(1-A)]

3. Calculating Facility VOC and HAP

Facility emissions of VOC and HAP include emissions from all licensed emissions equipment and processes, including emissions from the petroleum storage tanks, facility piping, and licensed combustion equipment (i.e., Boilers #3 and #4 and the Pier 2 Emergency Generator). In addition to emissions from normal operation, emissions from both routine and non-routine maintenance actives shall be included, such as tank degassing and tank cleaning.

Calculation of facility VOC and HAP emissions does not include emissions from nonlicensed equipment or processes which are considered insignificant activities pursuant to 06-096 C.M.R. ch. 140, Appendix B.

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Actual emissions shall be calculated as follows with all emissions summed to provide an annual total:

a. Petroleum Storage Tanks

VOC and HAP emissions from the petroleum storage tanks shall be calculated in accordance with the methodology contained in EPA's Compilation of Air Emission Factors (AP-42), Fifth Edition, Volume 1, Chapter 7, *Liquid Storage Tanks*, as amended June 2020, or other methods as approved by the Department.

b. Tank Maintenance

Emissions from tank maintenance (both planned and unplanned), including tank degassing and cleaning, shall be included when calculating the facility's annual facility-wide VOC and HAP emissions. Emissions from these operations shall be calculated in accordance with the methodology contained in AP-42, Fifth Edition, Volume 1, Chapter 7, as amended June 2020, or other methods approved by the Department and taking into account the control efficiency of any control equipment approved by the Department for use.

c. Facility Piping

Operation of the facility's equipment will result in fugitive emissions of VOC and HAP from the plant's piping. PPLC shall keep an updated inventory of system components (e.g., valves, pump seals, connectors, flanges, etc.) and calculate fugitive emissions using emission factors obtained from EPA's *Protocol for Equipment Leak Emission Estimates*, EPA-453/R-95-017, dated November 1995.¹

d. Combustion Equipment

Combustion equipment, including Boilers #3 and #4 and the Pier 2 Emergency Generator, emit small amounts of VOC and HAP due to incomplete combustion. VOC and HAP emissions from this equipment shall be estimated based on the amount of fuel fired and the equipment's licensed emission limits or other emission factors approved for use by the Department.

¹ <u>https://www3.epa.gov/ttnchie1/efdocs/equiplks.pdf</u>

P. Facility Annual Emissions

The table below provides an estimate of facility-wide annual emissions for the purposes of calculating the facility's annual air license fee. Only licensed equipment is included, i.e., emissions from insignificant activities are excluded. Similarly, unquantifiable fugitive particulate matter emissions are not included except when required by state or federal regulations. Although tank cleaning events result in emissions of VOC, controlled as required by 06-096 C.M.R. ch. 170, those emissions are not included in this table. Emissions from tank cleaning events are still required to be quantified and reported to the Department in accordance with 06-096 C.M.R. ch. 137. Emissions were calculated based on the following assumptions:

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- Firing 250,000 gal/yr distillate fuel in the boilers;
- Operating the Pier 2 Emergency Generator for 100 hrs/yr;
- A throughput limit of 11.0 billion gallons per year of crude oil; and
- Facility-wide HAP limits of 9.9 tpy for each individual HAP and 24.9 tpy for all HAP combined.

This information does not represent a comprehensive list of license restrictions or permissions. That information is provided in the Order section of this license.

Total Licensed Annual Emissions for the Facility Tons/year

	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Boilers #3 & #4	1.4	1.4	0.1	2.5	0.6	_
Pier 2 Emergency Generator	_	_	_	0.5	0.1	_
Facility-Wide		_	_	_	_	220.0
Total TPY	1.4	1.4	0.1	3.0	0.7	220.0

(used to calculate the annual license fee)

Pollutant	Tons/year
Single HAP	9.9
Total HAP	24.9

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

III.AMBIENT AIR QUALITY ANALYSIS

According to 06-096 C.M.R. ch. 140, an existing Part 70 source shall be exempt from an impact analysis with respect to a regulated pollutant whose allowable emissions do not exceed the following:

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Pollutant	Tons/year
PM	25
PM ₁₀	25
PM _{2.5}	15
SO_2	50
NO _x	50
CO	250

Based on facility license allowed emissions, PPLC is below the emissions level required for modeling and monitoring.

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-197-70-H-R pursuant to 06-096 C.M.R. ch. 140 and the preconstruction permitting requirements of 06-096 C.M.R. ch. 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 PPLC pursuant to the Department's preconstruction permitting requirements 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 Order. 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 *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115 for making such changes and pursuant to the applicable requirements in 06-096 C.M.R. ch. 140.

Portland Pipe Line Corporation		Departmental
Cumberland County		Findings of Fact and Order
South Portland, Maine		Part 70 Air Emission License
A-197-70-H-R	34	Renewal

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

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

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 C.M.R. ch. 140]
- (2) The Part 70 license does not convey any property rights of any sort, or any exclusive privilege. [06-096 C.M.R. ch. 140]
- (3) All terms and conditions are enforceable by EPA and citizens under the CAA unless specifically designated as state enforceable. [06-096 C.M.R. ch. 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 C.M.R. ch. 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 C.M.R. ch. 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.

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The following requirements have been specifically identified as not applicable based upon information submitted by the licensee.

Source	Citation	Description	Basis for Determination
Petroleum	06-096 C.M.R.	Petroleum Liquid Storage Vapor	Rule is not applicable to
Storage Tanks	ch. 111	Control	external floating roof tanks.
Parts Washers	06-096 C.M.R.	Solvent Cleaners	Facility uses solvent
	ch. 130		containing $< 5\%$ VOC.
Facility	06-096 C.M.R.	NO _x RACT	Facility does not have the
	ch. 138		potential to emit more than
			100 tpy of NO_x .
Boilers #3 and #4	40 C.F.R. Part 60,	NSPS for Steam Generating	Units were constructed prior
	Subpart Dc	Units less than 100 MMBtu/hr	to 1989.
Facility	40 C.F.R. Part 60,	NSPS for Petroleum Refineries	Facility is not a petroleum
	Subpart J		refinery.
Facility	40 C.F.R. Part 60,	NSPS for Petroleum Refineries	Facility is not a petroleum
	Subpart Ja		refinery.
Petroleum	40 C.F.R. Part 60,	NSPS for Storage Vessels for	Units were constructed prior
Storage Tanks	Subpart K	Petroleum Liquids	to the applicability date.
Petroleum	40 C.F.R. Part 60,	NSPS for Storage Vessels for	Units were constructed prior
Storage Tanks	Subpart Ka	Petroleum Liquids	to the applicability date.
Petroleum	40 C.F.R. Part 60,	NSPS for Volatile Organic	Units were constructed prior
Storage Tanks	Subpart Kb	Liquid Storage Vessels	to the applicability date.
Petroleum	40 C.F.R. Part 60,	NSPS for Volatile Organic	Units were constructed prior
Storage Tanks	Subpart Kc	Liquid Storage Vessels	to the applicability date.
Facility	40 C.F.R. Part 60,	NSPS for Bulk Gasoline	Facility is not a bulk gasoline
	Subpart XX	Terminal	terminal.
Facility	40 C.F.R. Part 60,	NSPS for Equipment Leaks of	Facility is not a petroleum
	Subpart GGG	VOC in petroleum refineries	refinery.
Pier 2	40 C.F.R. Part 60,	NSPS for Stationary	Manufactured prior to
Emergency	Subpart IIII	Compression Ignition Internal	April 1, 2006 applicability
Generator		Combustion Engine	date
Facility	40 C.F.R. Part 60,	NSPS for Crude Oil and Natural	Liquids received by the
	Subpart OOOO	Gas Facilities	facility have already passed
			the point of custody transfer
			to a crude oil transmission
			pipeline.

Permit Shield Table

Source	Citation	Description	Basis for Determination
Facility	40 C.F.R. Part 60,	NSPS for Crude Oil and Natural	Liquids received by the
	Subpart OOOOa	Gas Facilities	facility have already passed
			the point of custody transfer
			to a crude oil transmission
			pipeline.
Facility	40 C.F.R. Part 60,	NSPS for Crude Oil and Natural	Liquids received by the
	Subpart OOOOb	Gas Facilities	facility have already passed
			the point of custody transfer
			to a crude oil transmission
			pipeline.
Facility	40 C.F.R. Part 60,	Emissions Guidelines for Crude	Liquids received by the
	Subpart OOOOc	Oil and Natural Gas Facilities	facility have already passed
			the point of custody transfer
			to a crude oil transmission
			pipeline.
Facility	40 C.F.R. Part 60,	NSPS for Bulk Gasoline	Facility is not a bulk gasoline
D 11	Subpart XXa	Terminals	terminal
Facility	40 C.F.R. Part 63,	NESHAP for Marine Tank	Facility does not load marine
D 11.	Subpart Y	Vessel Loading Operations	vessels.
Facility	40 C.F.R. Part 63,	NESHAP for Oil and Natural	Facility is not an oil or natural
D 11	Subpart HH	Gas Production Facilities	gas production facility.
Facility	40 C.F.R. Part 63,	NESHAP for Natural Gas	Facility is not a natural gas
	Subpart HHH	Transmission and Storage	transmission or storage
			facility.
Facility	40 C.F.R. Part 63,	NESHAP for Organic Liquids	Facility is not a major source
D 1 //2 0 //4	Subpart EEEE	Distribution (Non-Gasoline)	of HAP.
Boilers #3 & #4	40 C.F.R. Part 63,	NESHAPs for Industrial,	Facility is not a major source
	Subpart DDDDD	Commercial, Institutional	of HAP.
. т.		Bollers and Process Heaters	
Facility	40 C.F.R. Part 64	Compliance Assurance	Facility has no applicable
Es silitar		Mandatamy Cressiliance Car	Ensility data not must
Facility	40 C.F.K. Part 98	Nandatory Greenhouse Gas	Facility does not meet
1		Keporting	applicability requirements.

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[06-096 C.M.R. ch. 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 three 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 C.M.R. ch. 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;

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- 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 C.M.R. ch. 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 C.M.R. ch. 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. § 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 06-096 C.M.R. ch. 140. [06-096 C.M.R. ch. 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 C.M.R. ch. 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. § 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 C.M.R. ch. 140] Enforceable by State-only

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- (6) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. In addition, 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 C.M.R. ch. 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 C.M.R. ch. 140]
- In accordance with the Department's air emission compliance test protocol and 40 C.F.R.
 Part 60 or other method approved or required by the Department, the licensee shall:
 - A. Perform stack testing 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 C.F.R. Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - C. Submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 C.M.R. ch. 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:

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- A. Within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 C.F.R. Part 60 or other method approved or required by the Department; and
- B. The days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
- C. The licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
 [06-096 C.M.R. ch. 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 <u>quarterly basis</u> 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. § 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.

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[06-096 C.M.R. ch. 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 C.M.R. ch. 140]
- (12) The licensee shall submit semiannual reports of any required periodic monitoring by January 31 and July 31 of each year, or on an equivalent schedule specified in the license. 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 C.M.R. ch. 140]
- (13) The licensee shall submit a compliance certification to the Department and EPA annually by January 31 of each year, 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 C.M.R. ch. 140]

SPECIFIC CONDITIONS

- (14) **Boilers #3 and #4**
 - A. Fuel Use and Operating Limits
 - 1. Boilers #3 and #4 are licensed to fire distillate fuel. [06-096 C.M.R. ch. 115, BACT (A-197-77-3-M, 4/9/2018)]

 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, BACT (A-197-77-3-M, 4/9/2018)]

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- 3. Boilers #3 and #4 shall each be limited to 876 hours of operation per year on a 12-month rolling total basis. [06-096 C.M.R. ch. 140, BPT]
- B. Boilers #3 and #4 Emission Limits (Emission limits are on a 1-hour block average basis unless otherwise stated.)
 - 1. Emissions from Boilers #3 and #4 shall each not exceed the following limits:

Pollutant	lb/MMBtu	Origin and Authority	Enforceability
PM	0.08	06-096 C.M.R. ch. 115, BACT (A-197-77-3-M, 4/9/2018)	Federally Enforceable

2. Emissions from Boilers #3 and #4 shall each not exceed the following limits:

Pollutant	lb/hr	Origin and Authority	Enforceability
РМ	1.68	06-096 C.M.R. ch. 115, BACT (A-197-77-3-M, 4/9/2018)	Federally Enforceable
PM ₁₀	1.68	06-096 C.M.R. ch. 115, BACT (A-197-77-3-M, 4/9/2018)	Federally Enforceable
SO ₂	0.03	06-096 C.M.R. ch. 115, BACT (A-197-77-3-M, 4/9/2018)	Federally Enforceable
NO _x	3.00	06-096 C.M.R. ch. 115, BACT (A-197-77-3-M, 4/9/2018)	Federally Enforceable
СО	0.75	06-096 C.M.R. ch. 115, BACT (A-197-77-3-M, 4/9/2018)	Federally Enforceable
VOC	0.03	06-096 C.M.R. ch. 115, BACT (A-197-77-3-M, 4/9/2018)	Federally Enforceable

C. Visible Emissions

Visible emissions from Stack #1 shall not exceed an opacity of 20% on a 6-minute block average basis. [06-096 C.M.R. ch. 101, \$\$ 4(A)(2) and 4(D)]

D. 40 C.F.R. Part 63, Subpart JJJJJJ

PPLC shall comply with all requirements of 40 C.F.R. Part 63, Subpart JJJJJJ, applicable to Boilers #3 and #4 including, but not limited to, the following:

1. PPLC shall implement a boiler tune-up program. [40 C.F.R. § 63.11223]

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

Boiler Category	Tune-Up Frequency
Boilers #3 and #4 Limited-use boilers (see definition, § 63.11237)	Every 5 years
[40 C.F.R. § 63.11223(a) and Table 2]	

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

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

c. <u>Tune-Up Report</u>: A tune-up report shall be maintained onsite and, if requested, submitted to EPA or the Department. The report shall contain the following information:

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- (1) The concentration of CO in the effluent stream (ppmv) and oxygen (volume percent) measured at high fire or typical operating load both **before** and **after** the boiler tune-up; and
- (2) A description of any corrective actions taken as part of the tune-up of the boiler.
- [40 C.F.R. § 63.11223(b)(6)]
- 2. Compliance Report

A compliance report shall be prepared by March 1st every five years which covers the previous five calendar years. The report shall be maintained by the source and submitted to the Department and/or to the EPA upon request. The report must include the items contained in §§ 63.11225(b)(1) and (2), including the following: [40 C.F.R. § 63.11225(b)]

- a. Company name and address;
- b. A statement of whether the source has complied with all the relevant requirements of this Subpart;
- c. A statement certifying truth, accuracy, and completeness of the notification and signed by a responsible official and containing the official's name, title, phone number, email address, and signature;
- d. The following certifications, as applicable:
 - (1) "This facility complies with the requirements in 40 C.F.R. § 63.11223 to conduct tune-ups of each boiler in accordance with the frequency specified in this Subpart."
 - (2) "No secondary materials that are solid waste were combusted in any affected unit."
 - (3) "This facility complies with the requirement in §§ 63.11214(d) and 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."
- 3. Records shall be maintained consistent with the requirements of 40 C.F.R. Part 63, Subpart JJJJJJ, including the following [40 C.F.R. § 63.11225(c)]:
 - a. Copies of notifications and reports with supporting compliance documentation;
 - b. Identification of each boiler, the date of tune-up, procedures followed for tuneup, and the manufacturer's specifications to which the boiler was tuned;
 - c. Records of the occurrence and duration of each malfunction of each applicable boiler; and

d. Records of actions taken during periods of malfunction to minimize emissions, including corrective actions to restore the malfunctioning boiler.

Records shall be in a form suitable and readily available for expeditious review.

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E. Periodic Monitoring

PPLC shall record data and maintain records for the following periodic monitoring values for Boilers #3 and #4.

- 1. Hours of operation for each boiler on a monthly and calendar year basis; [06-096 C.M.R ch. 137 and 06-096 C.M.R. ch. 140, BPT]
- Distillate fuel usage for each boiler on a monthly and calendar year basis; [06-096 C.M.R. ch. 137 and 06-096 C.M.R. ch. 115, BACT (A-197-77-3-M, 4/9/2018)]
- 3. Sulfur content (% by weight) of the distillate fuel fired; [06-096 C.M.R. ch. 137] and
- 4. Recordkeeping in accordance with the requirements of 40 C.F.R. Part 63, Subpart JJJJJJ (described earlier).

(15) **Pier 2 Emergency Generator**

A. Allowable Operation and Fuels

The Pier 2 Emergency Generator is licensed to fire distillate fuel. [06-096 C.M.R. ch. 140, BPT] **Enforceable by State-only**

B. Emissions shall not exceed the following limits:

Unit	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)	(lb/hr)
Pier 2 Emergency Generator	0.29	0.29	0.01	10.67	2.30	0.88

^{[06-096} C.M.R. ch. 140, BPT (A-197-70-E-R, 2/2/2015)] Enforceable by State-only

C. Visible Emissions

Visible emissions from the Pier 2 Emergency Generator shall not exceed an opacity of 20% on a six-minute block average basis, except during periods of startup. During periods of startup, the engine must meet the normal operating visible emissions standard or the following work practice standards and alternative visible emissions standard. Use of the following work practice standards and alternative visible emissions standard in lieu of the normal operating visible emissions standard is limited to no more than once per day.

- 1. The duration of the startup shall not exceed 30 minutes per event;
- 2. Visible emissions shall not exceed 50% opacity on a six-minute block average basis; and

3. PPLC shall keep records as of the date, time, and duration of each startup event. $[06-096 \text{ C.M.R. ch. } 101, \S 4(A)(4)]$

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Note: This does not limit the engine to one startup per day. It only limits the use of the alternative emission standard to once per day.

D. Periodic Monitoring

PPLC shall record data and maintain records for the following periodic monitoring values for the Pier 2 Emergency Generator.

- 1. Hours of operating time on a calendar year basis; [06-096 C.M.R. ch. 137]
- Log of the duration and reasons for all operating times as they occur; [40 C.F.R. § 63.6655(f)]
- 3. Records of all maintenance conducted; [40 C.F.R. § 63.6655(e)]
- 4. Sulfur content of the distillate fuel fired. [06-096 C.M.R. ch. 140, BPT]
- E. 40 C.F.R. Part 63, Subpart ZZZZ

Following are applicable requirements of 40 C.F.R. Part 63, Subpart ZZZZ, for the Pier 2 Emergency Generator not addressed elsewhere in this Order:

- 1. PPLC shall meet the following operational limitations for the Pier 2 Emergency Generator:
 - a. Change the oil and filter every 500 hours of operation or annually, whichever comes first;
 - b. Inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and
 - c. Inspect the hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

Records shall be maintained documenting compliance with the operational limitations.

[40 C.F.R. § 63.6603(a) and Table 2(d) and 06-096 C.M.R. ch. 140, BPT]

2. Oil Analysis Program Option

PPLC 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, PPLC 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 C.F.R.§ 63.6625(i)]

 Non-Resettable Hour Meter A non-resettable hour meter shall be installed and operated on the engine. [40 C.F.R. § 63.6625(f)]

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- 4. Maintenance, Testing, and Non-Emergency Operating Situations
 - a. The engine shall be limited to 100 hours/year for maintenance checks and readiness testing. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). These limits are based on a calendar year. Compliance shall be demonstrated by records (electronic or written logs) of all engine operating hours. [40 C.F.R. § 63.6640(f) and 06-096 C.M.R. ch. 140, BPT]
 - b. PPLC shall keep records that include maintenance conducted on the engine and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the number of hours the unit operated for emergency purposes, the number of hours the unit operated for non-emergency purposes, and the reason the engine was in operation during each time. [40 C.F.R. §§ 63.6655(e) and (f)]
- 5. Operation and Maintenance The engine shall be operated and maintained according to the manufacturer's emission-related written instructions. [40 C.F.R. § 63.6625(e)]
- Startup Idle and Startup Time Minimization 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.
 [40 C.F.R. § 63.6625(h) & 40 C.F.R. Part 63, Subpart ZZZZ Table 2d]

(16) **Petroleum Storage Tanks**

A. PPLC shall not exceed a throughput of 11.0 billion gallons per year of crude oil on a 12-month rolling total basis. [06-096 C.M.R. ch. 140, BPT (A-197-70-A-I, 12/8/1998)]
 Enforceable by State-only

B. Each petroleum storage tank shall be equipped, maintained, and operated such that:

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- 1. There is an external floating roof and closure seal(s) between the roof edge and the tank wall;
- 2. The external floating roof and closure seal(s) shall be maintained such that the cumulative area of gaps between the tank walls and primary seals does not exceed 212 square centimeters (cm²) per meter of tank diameter;
- 3. The cover is uniformly floating on or above the liquid;
- 4. Visible holes, tears, or other openings in the surface of the cover discovered during monthly inspections shall be repaired within 15 days of their discovery. Any liquid accumulated on the cover from any such holes, tears, or openings in the cover shall be cleaned within 15 days of such discovery. Any leaks taking longer than 15 days to repair shall be reported to the Department, including a description of the leaking component and a schedule for conducting the repairs;
- 5. All detected holes, tears, or openings in the surface of the cover or seals (other than gaps created by the rising and lowering of the tank roof) discovered during the annual inspection shall be repaired by May 31st each year, or if repair by May 31st is not possible, the leak shall be reported to the Department within 48 hours of such determination including a description of the leaking component and a schedule for conducting the repairs;
- 6. All petroleum storage tank openings, except automatic bleeder vents, rim space vents, and leg sleeves are equipped with a cover, seal, or lid which is to be maintained in a closed position at all times except for when the device (i.e., tank opening) is in actual use;
- 7. All openings in the external floating roof, except for automatic bleeder vents, rim space vents, and leg sleeves, are to provide a projection below the liquid surface;
- 8. All automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports;
- 9. All rim vents are to be set to open only when the roof is being floated off leg supports or at the manufacturer's recommended setting;
- 10. There are no visible or audible vapor leaks in the petroleum storage tanks or the related transfer piping; and
- 11. Except in an emergency, PPLC shall provide written notice to the Department at least seven days prior to landing the roof of a petroleum storage tank, i.e., allowing the roof to rest upon its support legs. In case of an emergency, PPLC shall notify the Department within 48 hours of the roof landing including the reason for the emergency.
- [06-096 C.M.R. ch. 140, BPT] Enforceable by State-only

C. PPLC shall comply with the following source inspection requirements for the petroleum storage tanks:

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- 1. Monthly and annual inspections shall be conducted on all petroleum storage tank covers, seals, transfer piping, and fittings for the following:
 - a. The cover is uniformly floating on or above the liquid;
 - b. Visible holes, tears, or other openings in the surface of the cover and any resulting liquid accumulated on the cover; and
 - c. Any visible or audible vapor leaks in the petroleum storage tanks or related transfer piping.
- 2. Monthly visual inspections shall be conducted on petroleum storage tank covers, seals, transfer piping, and fittings.
- 3. Detailed inspections shall be conducted annually during April or May (after the annual cleaning of the tank seals) for potential sources of fugitive VOC emissions, including covers, seals, transfer piping, and fittings.
- 4. Discovery of leaks, holes, or tears in the seals during the routine monthly or annual inspections does not constitute a violation. A violation occurs only if such leaks, holes, or tears discovered are in excess of 212 cm² per meter of tank diameter and are not repaired within 15 days of discovery for routine inspections or by May 31st of each year for annual inspections or by a schedule approved by the Department.

[06-096 C.M.R. ch. 140, BPT (A-197-70-A-I, 12/8/1998)] Enforceable by State-only

- D. PPLC shall notify the Department at least seven days in advance of any planned degassing event, and as soon as possible for any unplanned degassing event, subject to the requirements of 06-096 C.M.R. ch. 170, and provide the following information;
 - 1. Identification of the tank(s) to be degassed;
 - 2. Date(s) when degassing will begin and its anticipated duration;
 - 3. A description of the control device to be used and documentation of its control effectiveness from the manufacturer; and
 - 4. The parameters to be monitored during degassing.

[06-096 C.M.R. ch. 140, BPT] Enforceable by State-only

E. VOC RACT

The external floating roofs and primary shoe seals shall achieve an 85% or greater reduction in VOC emissions from uncontrolled or fixed roof tanks. PPLC shall operate its petroleum storage tanks such that the total facility VOC emissions do not exceed, on a daily basis, 15% of the uncontrolled daily VOC emissions. The percent VOC emission reduction shall be determined in accordance with the methodology contained in the most current version of EPA's Compilation of Air Emission Factors (AP-42), Fifth Edition, Volume 1, Chapter 7, *Liquid Storage Tanks*, as amended June 2020, or other methods approved by the Department. [06-096 C.M.R. ch. 134, VOC RACT]

F. Tank Degassing

PPLC shall comply with all requirements of 06-096 C.M.R. ch. 170 applicable to the petroleum storage tanks including, but not limited to, the following: **Enforceable by State-only**

1. Control Requirements [06-096 C.M.R. ch. 170, § 4 unless otherwise noted]

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- a. When emptying and degassing a petroleum storage tank whose most recently stored product was crude oil, PPLC shall:
 - (1) To the extent practicable, empty the storage tank of product; and
 - (2) Exhaust the vapor space of the storage tank to a vapor control system designed to achieve a VOC control efficiency of at least 95% until the VOC concentration is less than 5,000 ppmv, measured as methane, or is 10% or less of the lower explosive limit (LEL), as methane, for at least one hour.

Compliance shall be demonstrated through continuous monitoring of the VOC concentration in the line between the storage tank being degassed and the vapor control device. [06-096 C.M.R. ch. 170, § 7(B)]

- b. The intentional bypassing of a vapor control device used during degassing is prohibited. However, as appropriate, PPLC may temporarily remove for not longer than one hour a suitable tank fitting, such as a manway, to facilitate connection to the vapor control system. [06-096 C.M.R. ch. 170, §4(C)]
- c. The probe inlet of the monitoring instrument shall be located in the line between the tank or vessel being degassed and the control device or other location as approved by the Department. [06-096 C.M.R. ch. 170, § 6]
- d. The monitoring device shall be calibrated, maintained, and operated according to the manufacturer's instructions. [06-096 C.M.R. ch. 170, § 7(A)]
- e. The vapor control system used in the degassing process shall be free of liquid and vapor leaks. This includes, but is not limited to, the degassing equipment, vacuum truck, pumps, hoses, and connections.
- f. Any visible or audible liquid or vapor leak originating from the vapor control device or other associated product recovery device shall be repaired as soon as possible.

g. PPLC shall comply with the following to control emissions from any sludge removed from a petroleum storage tank containing, or which most recently contained, crude oil. These requirements do not apply when sludge is immediately transferred (e.g., pumped) to a floating roof tank whose roof is not resting on its legs.

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- (i) During sludge removal, PPLC shall vent emissions from the vessel receiving the sludge to a vapor control system designed to achieve a VOC control efficiency of at least 95%;
- (ii) The removed sludge must be transported in containers that are vapor-tight and free of liquid leaks; and
- (iii)Until final disposal, removed sludge must be stored in containers that are vapor-tight and free of liquid leaks or in tanks that are vented to a vapor control system designed to achieve a VOC control efficiency of at least 95%.
- 2. Inspection Requirements [06-096 C.M.R. ch. 170, §§ 5 and 6]

During a degassing event of a petroleum storage tank whose most recently stored product was crude oil, PPLC shall:

a. At least once per calendar day, inspect the vapor control system for liquid and vapor leaks. To check for vapor leaks, the owner or operator shall use photo ionization detection (PID) technology or flame ionization detection (FID) technology.

Measurement of VOC concentrations shall be conducted in accordance with 40 C.F.R. Part 60, Appendix A, Method 21, using an appropriate analyzer calibrated with methane in accordance with the manufacturer's recommendations, at a distance of one inch (2.54 cm) or less from the source. Alternate test methods may be allowed upon written approval by the Department.

- b. If a liquid or vapor leak is observed, degassing must be discontinued within two hours of leak observance unless the leak is repaired or discontinuing degassing would present an imminent safety hazard.
- 3. During times the vapor control system is in use, PPLC shall monitor and record the operational parameters necessary to demonstrate the proper functioning of the vapor control system in accordance with the requirements of 06-096 C.M.R. ch. 170, § 7(C).

4. Recordkeeping Requirements [06-096 C.M.R. ch. 170, §§ 8] PPLC shall maintain the following records for each degassing event and make them available to the Department upon request:

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- a. PPLC's contact person name and telephone number;
- b. Storage tank capacity;
- c. The product most recently stored in the storage tank prior to degassing;
- d. Volume (cubic feet) of vapor space degassed;
- e. Type of vapor control system used;
- f. Design control efficiency of the vapor control system;
- g. Results of all liquid and vapor leak inspections and repairs conducted in accordance with the provisions of 06-096 C.M.R. ch. 170, § 5;
- h. Results of testing conducted in accordance with 06-096 C.M.R. ch. 170, § 6;
- i. Estimate of VOC emissions from the degassing event before control efficiency is applied (i.e., pre-control emissions); and
- j. Estimate of VOC emissions from the degassing event after application of controls.
- G. Periodic Monitoring

PPLC shall record data and maintain records for the following periodic monitoring values for the petroleum storage tanks:

- 1. Inspection log documenting routine monthly visual and annual inspections of covers, seals, transfer piping, and fittings.
- 2. Inspection log documenting any detected leaks, holes, tears, or openings in the surface of the cover (other than gaps created by the rising and lowering of the tank roof) and the corrective action taken.

[06-096 C.M.R. ch. 140, BPT] Enforceable by State-only

(17) **06-096 C.M.R. ch. 171**

Following are requirements of 06-096 C.M.R. ch. 171 not addressed elsewhere in this Order. Enforceable by State-only

A. Inspections Using Optical Gas Imaging

PPLC shall perform inspections in accordance with the following:

1. At least once per calendar quarter PPLC shall conduct an inspection survey of each tank subject to the inspection surveys under 06-096 C.M.R. ch. 171 (i.e., each non-exempt tank) and facility fugitive emissions component using optical gas imaging equipment. [06-096 C.M.R. ch. 171, § 5(A)(1)]

- 2. The optical gas imaging equipment used must meet the following specifications as verified by the manufacturer:
 - a. Capable of imaging gases in the spectral range for benzene; and

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b. Capable of imaging a gas that is half methane and half propane at a concentration of 10,000 ppm at a flow rate of ≤ 60 grams per hour from a quarter inch diameter orifice.

[06-096 C.M.R. ch. 171, § 5(A)(2)]

- 3. If visible emissions are observed in a fugitive emissions component using optical gas imaging equipment, within two calendar days PPLC shall determine whether a leak, as defined by 06-096 C.M.R. ch. 171, is present by using photo ionization detection (PID) technology or flame ionization detection (FID) technology. Alternatively, PPLC may elect to presume that a leak is present without further confirmation. If a leak is determined or presumed to be present, PPLC shall initiate corrective action and repair the leak within 15 calendar days.
 - a. If the presence of a leak cannot be confirmed due to safety concerns or physical constraints, PPLC shall presume the leak to be confirmed and initiate corrective action and repair the leak within 15 calendar days.
 - b. If a leak cannot be repaired within 15 days, PPLC shall notify the Department of the leak, the reason for the delay, and the expected date of the repair. PPLC shall promptly notify the Department of the date that the leak is successfully repaired. A fugitive emissions component is considered repaired when the optical gas imaging equipment shows no indication of visible emissions or there is no longer indication of a leak as that term is defined in this regulation under normal use conditions.

[06-096 C.M.R. ch. 171, § 5(A)(5)]

- 4. For all quarterly inspections conducted using optical gas imaging equipment PPLC shall keep the following records:
 - a. The date of the inspection;
 - b. Identification and description of the equipment and areas inspected;
 - c. A description of any leaks detected;
 - d. An electronic recording of the optical gas imaging equipment images; and
 - e. A description of any resulting corrective actions or repairs and the dates they were made.

[06-096 C.M.R. ch. 171, § 7(B)]

B. Fenceline Monitoring

PPLC shall conduct sampling along the facility property boundary and analyze the samples in accordance with 40 C.F.R. Part 63, Appendix A, Methods 325A and 325B, as specified below.

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- 1. The monitoring program shall be designed and operated by a qualified, independent, third-party entity. [06-096 C.M.R. ch. 171, § 6(B)(1)]
- 2. The target analytes shall be benzene, ethylbenzene, toluene, and xylenes. [06-096 C.M.R. ch. 171, § 6(B)(2)]
- 3. A maximum 14-day sampling period shall be used except under extenuating circumstances as described below. Upon approval by the Department, PPLC may use a shorter sampling period.

When extenuating circumstances do not permit safe deployment or retrieval of passive samplers (e.g., extreme weather, power failure), sampler placement or retrieval earlier or later than the prescribed schedule is allowed but must occur as soon as safe access to sampling sites is possible. [06-096 C.M.R. ch. 171, § 6(B)(3)]

- 4. No later than six months after approval of the site-specific fenceline monitoring plan, PPLC shall commence monitoring in accordance with this Chapter through use of a qualified, independent, third-party entity. [06-096 C.M.R. ch. 171, § 6(B)(5)]
- 5. PPLC shall keep the following records:
 - a. Coordinates of all passive monitors and the meteorological station used. Coordinates shall be determined using a method with an accuracy of three meters or less;
 - b. Average ambient temperature and barometric pressure measurements for the sampling period;
 - c. Individual sample results; and
 - d. Method detection limit for each sample. [06-096 C.M.R. ch. 171, § 7(C)]
- 6. PPLC shall submit a report to the Department for each calendar quarter with the following information. Each quarterly report must be electronically submitted no later than 45 days after the end of the reporting period.
 - a. Facility name and address;

b. Year and reporting quarter (i.e., Quarter 1, Quarter 2, Quarter 3, or Quarter 4).

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- c. For each passive monitor:
 - (1) The latitude and longitude location coordinates;
 - (2) The sampler name; and
 - (3) Identification of the type of sampler (e.g., regular monitor, duplicate, field blank, etc.)
- d. The beginning and ending dates for each sampling period;
- e. Individual sample results in units of micrograms per cubic meter $(\mu g/m^3)$ for each monitor for each sampling period that ends during the reporting period. Results below the method detection limit shall be flagged as such and reported at the method detection limit. and
- f. Meteorological data collected during each sampling period, including wind speed and direction.

[06-096 C.M.R. ch. 171, § 8]

(18) Facility Wide Limits

- A. PPLC shall not exceed a facility-wide emission limit of 9.9 tpy for any single HAP on a 12-month rolling total basis. [06-096 C.M.R. ch. 140, BPT]
- B. PPLC shall not exceed a facility-wide emission limit of 24.9 tpy for all HAP combined on a 12-month rolling total basis. [06-096 C.M.R. ch. 140, BPT]
- C. Compliance with the facility-wide HAP emission limits shall be demonstrated by calculating actual emissions at least once every three years as required by *Emission Statements*, 06 096 C.M.R. ch. 137. [40 C.F.R. § 70.6(c)(1)]
- D. PPLC shall maintain records necessary to calculate annual HAP emissions for any consecutive 12-month period and shall provide a demonstration of compliance with the facility-wide HAP emission limits for any consecutive 12-month period upon request by the Department. [40 C.F.R. § 70.6(c)(1)]

(19) Annual Emission Statements

- A. In accordance with *Emission Statements*, 06-096 C.M.R. ch. 137, PPLC shall annually report to the Department, in a format prescribed by the Department, the information necessary to accurately update the State's emission inventory. The emission statement shall be submitted as specified by the date in 06-096 C.M.R. ch. 137.
- B. PPLC shall keep the following records in order to comply with 06-096 C.M.R. ch. 137:
 - 1. The amount of distillate fuel fired in Boilers #3 and #4 and the Pier 2 Emergency Generator on a monthly basis;

- 2. The sulfur content of the distillate fuel fired in Boilers #3 and #4 and the Pier 2 Emergency Generator;
- 3. Hours each emission unit was active or operating on a monthly basis; and

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- 4. Records needed to calculate the facility-wide VOC and HAP emissions on a calendar year total basis including:
 - a. Monthly throughput for each petroleum storage tank;
 - b. Equipment and product information necessary to calculate emissions from the petroleum storage tanks;
 - c. Process and product information necessary to calculate emissions from tank maintenance operations;
 - d. Equipment and product information necessary to calculate emissions from facility piping in accordance with EPA's *Protocol for Equipment Leak Emission Estimates*; and
 - e. Fuel use on a monthly basis for Boilers #3 and #4 and the Pier 2 Emergency Generator.

[06-096 C.M.R. ch. 137]

- C. Every third year, PPLC shall report to the Department emissions of hazardous air pollutants as required pursuant to 06-096 C.M.R. ch. 137, § (3)(C). The next report is due no later than May 15, 2027, for emissions occurring in calendar year 2026. PPLC shall pay the annual air quality surcharge, calculated by the Department based on these reported emissions of hazardous air pollutants, by the date required in Title 38 M.R.S. § 353-A(3). [38 M.R.S. § 353-A(1-A)]
- D. Actual emissions of facility VOC and HAP shall be calculated as follows with all emissions summed to provide an annual total: [40 C.F.R. § 70.6(c)(1)]
 - 1. Petroleum Storage Tanks

VOC and HAP emissions from the petroleum storage tanks shall be calculated in accordance with the methodology contained in the most current version of EPA's Compilation of Air Emission Factors (AP-42), Fifth Edition, Volume 1, Chapter 7, *Liquid Storage Tanks*, as amended June 2020, or other methods approved by the Department.

2. Tank Maintenance

Emissions from tank maintenance (both planned and unplanned), including tank degassing and cleaning, shall be included when calculating the facility's annual facility-wide VOC and HAP emissions. Emissions from these operations shall be calculated in accordance with the methodology contained in the most current version of AP-42, Fifth Edition, Volume 1, Chapter 7 as amended June 2020 or other methods approved by the Department and taking into account the control efficiency of any control equipment approved by the Department for use.

3. Facility Piping

PPLC shall keep an updated inventory of system components (e.g., valves, pump seals, connectors, flanges, etc.) and calculate fugitive emissions using emission factors obtained from EPA's *Protocol for Equipment Leak Emission Estimates*, EPA-453/R-95-017, dated November 1995.²

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4. Combustion Equipment

VOC and HAP emissions from combustion equipment, including Boilers #3 and #4 and the Pier 2 Emergency Generator, shall be estimated based on the amount of fuel fired and the equipment's licensed emission limits or other emission factors approved for use by the Department.

(20) **Fugitive Emissions**

- A. PPLC shall not cause emissions of any fugitive dust during any period of construction, reconstruction, or operation without taking reasonable precautions. Such reasonable precautions shall be included in the facility's continuing program of best management practices for suppression of fugitive particulate matter. See 06-096 C.M.R. ch. 101, § 4(C) for a list of potential reasonable precautions.
- B. PPLC shall not cause or allow visible emissions within 20 feet of ground level, measured as any level of opacity and not including water vapor, beyond the legal boundary of the property on which such emissions occur. Compliance with this standard shall be determined pursuant to 40 C.F.R. Part 60, Appendix A, Method 22.

[06-096 C.M.R. ch. 101, § 4(C)]

(21) Semiannual Reporting [06-096 C.M.R. ch. 140]

Note: This semiannual report is separate from, and in addition to, any semiannual report required by specific NSPS or NESHAP regulations.

- 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 on or before the due date or if the report is received by the Department within seven calendar days of the due date.
- C. Each semiannual report shall include a summary of the periodic monitoring required by this license.

² https://www3.epa.gov/ttnchie1/efdocs/equiplks.pdf

D. 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.

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(22) Annual Compliance Certification

PPLC 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**st 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 on or 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 C.M.R. ch. 140]

(23) General Applicable State Regulations

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

The licensee is subject to the State regulations listed below.

(24) 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 C.F.R. 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 C.F.R. Part 82, Subpart F]

(25) Asbestos Abatement

When undertaking asbestos abatement activities, PPLC shall comply with the *Standard for Asbestos Demolition and Renovation*, 40 C.F.R. Part 61, Subpart M.

(26) Expiration of a Part 70 License

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

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B. Pursuant to Title 5 M.R.S. § 10002, and 06-096 C.M.R. ch. 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 C.M.R. ch. 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

(27) New Source Review

PPLC is subject to all previous New Source Review (NSR) requirements summarized in this Part 70 air emission license, and the NSR requirements remain in effect even if this 06-096 C.M.R. ch. 140 Air Emissions License, A-197-70-H-R, expires.

Done and dated in Augusta, maine this 24^{th} day of FEBRUARY, 2025.

DEPARTMENT OF ENVIRONMENTAL PROTECTION BY: MELANIE LOYZIM, 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 six but no more than 18 months prior to expiration of the facility's Part 70 license, then pursuant to Title 5 M.R.S. §10002, all terms and conditions of the Part 70 license shall remain in effect until the Department takes final action on the Part 70 license renewal application.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application:8/2/2019Date of application acceptance:8/2/2019

This Order prepared by Lynn Muzzey, Bureau of Air Quality.