



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

DEPARTMENT ORDER

**Penobscot Bay Terminals, Inc. d/b/a
Webber Tanks
Hancock County
Bucksport, Maine
A-161-71-H-A**

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

FINDINGS OF FACT

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

I. REGISTRATION

A. Introduction

Penobscot Bay Terminals, Inc. d/b/a Webber Tanks (Webber Tanks) was issued Air Emission License A-161-71-G-R on December 12, 2017, for the operation of emission sources associated with their bulk petroleum storage and distribution facility.

The equipment addressed in this license amendment is located at 93 River Rd, Bucksport, Maine.

Webber Tanks has requested an after-the-fact amendment to their license in order to make the following changes:

1. Add an emergency generator to the license after-the-fact;
2. Reduce the facility's annual VOC and HAP limits;
3. Change the record keeping timing from a 12-month rolling total basis to a calendar year basis;
4. Remove the requirement to submit an annual emission inventory according to 06-096 C.M.R. ch. 137; and
5. Remove the requirement to maintain records of Reid vapor pressure measurements.

B. Emission Equipment

The following equipment is addressed in this air emission license amendment:

Stationary Engine

Equipment	Max. Input Capacity (MMBtu/hr)	Rated Output Capacity (kW)	Fuel Type	Firing Rate (gal/hr)	Date of Manuf.	Date of Install.
Generator #1	1.9	165	distillate fuel	14.0	1978	2020

C. Application Classification

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

The modification of a minor source is considered a major or minor modification based on whether or not expected emission increases exceed the “Significant Emission” levels as defined in the Department’s *Definitions Regulation*, 06-096 Code of Maine Rules (C.M.R.) ch. 100. The emission increases are determined by subtracting the current licensed annual emissions preceding the modification from the maximum future licensed annual emissions, as follows:

Pollutant	Current License (tpy)	Future License (tpy)	Net Change (tpy)	Significant Emission Levels
PM	0	0.1	0.1	100
PM ₁₀	0	0.1	0.1	100
PM _{2.5}	0	0.1	0.1	100
SO ₂	0	0.1	0.1	100
NO _x	0	0.5	0.5	100
CO	0	0.1	0.1	100
VOC	49.9	24.9	-25	50

* Webber Tanks is located in an area of the state included in the Ozone Transport Region. Therefore, the significant emission level for VOC is 50 tpy.

This modification is determined to be a minor modification and has been processed as such.

D. Facility Classification

With the annual VOC limit associated with the petroleum storage tanks, the facility is licensed as follows:

- As a synthetic minor source of air emissions for VOC and, because Webber Tanks is subject to license restrictions that keep facility emissions below major source thresholds for criteria pollutants; and
- As an area source of hazardous air pollutants (HAP), because the licensed emissions are below the major source thresholds for HAP.

II. **BEST PRACTICAL TREATMENT (BPT)**

A. Introduction

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

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

B. Generator #1

Webber Tanks operates Generator #1 as an emergency generator which consists of an engine and an electrical generator. Generator #1 has an engine rated at 1.9 MMBtu/hr which fires distillate fuel. Generator #1 was manufactured in 1978 and installed in 2020.

1. BACT Findings

The BACT emission limits for Generator #1 are based on the following:

PM/PM ₁₀ /PM _{2.5}	– 0.12 lb/MMBtu from 06-096 C.M.R. ch. 115, BACT
SO ₂	– Combustion of distillate fuel with a maximum sulfur content not to exceed 15 ppm (0.0015% sulfur by weight)
NO _x	– 4.41 lb/MMBtu from AP-42 Table 3.3-1, dated 10/96
CO	– 0.95 lb/MMBtu from AP-42 Table 3.3-1, dated 10/96
VOC	– 0.36 lb/MMBtu from AP-42 Table 3.3-1, dated 10/96
Visible Emissions	– 06-096 C.M.R. ch. 115, BACT

The BACT emission limits for Generator #1 are the following:

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	PM _{2.5} (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator # 1	0.23	0.23	0.23	0.01	8.46	1.82	0.69

Visible emissions Generator #1 shall not exceed 20% opacity on a six-minute block average basis.

Generator #1 shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. There is no limit on emergency operation. The emergency generator shall be equipped with a non-resettable hour-meter to record operating time. To demonstrate compliance with the operating hours limit, Webber Tanks shall keep records of the total hours of operation and the hours of emergency operation for the unit.

Emergency generators are only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Emergency generators are not to be used for prime power when reliable offsite power is available; nor to operate or to be contractually obligated to be available in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity.

2. Chapter 169

Generator #1 was installed prior to the effective date of *Stationary Generators*, 06-096 C.M.R. ch. 169 and is therefore exempt from this rule pursuant to section 3(B).

3. New Source Performance Standards (NSPS)

Due to the date of manufacture of the compression ignition emergency engine listed above, the engine is not subject to the New Source Performance Standards (NSPS) *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CIICE)*, 40 C.F.R. Part 60, Subpart IIII since the unit was manufactured prior to April 1, 2006. [40 C.F.R. § 60.4200]

4. National Emission Standards for Hazardous Air Pollutants (NESHAP):
40 C.F.R. Part 63, Subpart ZZZZ

National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, 40 C.F.R. Part 63, Subpart ZZZZ is not applicable to the emergency engine listed above. The unit is considered an existing, emergency stationary reciprocating internal combustion engine at an area HAP source.

However, it is considered exempt from the requirements of 40 C.F.R. Part 63, Subpart ZZZZ since it is categorized as a commercial emergency engine and it does not operate nor is it contractually obligated to be available in a demand response program, during a period of deviation from standard voltage or frequency, or for supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in 40 C.F.R. § 63.6640(f)(4)(ii).

Operation of any emergency engine in a demand response program, during a period of deviation from standard voltage or frequency, or for supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in 40 C.F.R. § 63.6640(f)(4)(ii), would cause the engine to be subject to 40 C.F.R. Part 63, Subpart ZZZZ and require compliance with all applicable requirements.

C. Annual VOC and HAP Limit Reductions

Webber Tanks has elected to reduce its annual VOC and HAP limits to less than half of major source levels, so that they will no longer be required to track tank emissions on a 12-month rolling total basis to assure that the facility remains as a minor source of VOC and HAP. Reported emissions in the past 10 years have been under 10 tons/year for VOC and under 1 ton/year for all HAP combined, and Webber Tanks does not anticipate throughput or operational changes that would notably increase those emissions.

As of the issuance of this amendment, emissions from the petroleum storage tanks and associated equipment will be limited to no more than 24.8 tons/year of VOC, 4.9 tons/year of any single HAP, and 9.9 tons/year of all HAP combined, all on a calendar year total basis.

D. Reid Vapor Pressure Measurement Requirement

Webber Tanks is prohibited from storing gasoline in the tanks at their facility; therefore, the requirement to perform a Reid vapor pressure measurement is not an appropriate method to determine the true vapor pressure of the stored material. The maximum true vapor pressure is able to be calculated using the equations found in AP-42 Chapter 7.1, equations 1-25 and 1-26. As such, the requirement to perform a Reid vapor pressure measurement will be removed.

E. Emissions Statements

With the reduction of the annual VOC limit from process sources, the Webber Tanks potential emissions will now fall below the applicability threshold of 06-096 C.M.R. ch. 137, *Emission Statements*. Webber Tanks will be required to comply with the existing requirements for the remainder of reporting year 2023 and subsequently

report those emissions to the Department, after which point Webber Tanks will no longer be subject to the requirements of 06-096 C.M.R. ch. 137.

F. 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 and establishing the facility’s potential to emit (PTE). 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. Maximum potential emissions were calculated based on the following assumptions:

- Operating Generator #1 for 100 hrs/yr;
- A VOC limit from process sources of 24.8 tons/year; and
- A facility wide HAP limit of 4.9 tons/year of any single HAP and 9.9 tons/year of 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**

(used to calculate the annual license fee)

	PM	PM ₁₀	PM _{2.5}	SO ₂	NO _x	CO	VOC
Process Emissions	--	--	--	--	--	--	24.8
Generator #1	0.1	0.1	0.1	0.1	0.5	0.1	0.1
Total TPY	0.1	0.1	0.1	0.1	0.5	0.1	24.9

Pollutant	Tons/year
Single HAP	4.9
Total HAP	9.9

III. AMBIENT AIR QUALITY ANALYSIS

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

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Pollutant	Tons/Year
PM ₁₀	25
PM _{2.5}	15
SO ₂	50
NO _x	50
CO	250

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

This determination is based on information provided by the applicant regarding the expected construction and operation of the proposed emission units. If the Department determines that any parameter (e.g., stack size, configuration, flow rate, emission rates, nearby structures, etc.) deviates from what was included in the application, the Department may require Webber Tanks to submit additional information and may require an ambient air quality impact analysis at that time.

ORDER

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

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

The Department hereby grants Air Emission License Amendment A-161-71-H-A subject to the conditions found in Air Emission License A-161-71-G-R and the following conditions.

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

SPECIFIC CONDITIONS

The following shall replace Specific Conditions (16) and (22) of Air Emission License A-161-71-G-R.

(16) Annual Emission Limit and Recordkeeping

- A. VOC emissions from process sources shall not exceed 24.8 tons per year; facility-wide emissions of any single HAP shall not exceed 4.9 tons per year; and facility-wide emissions of all HAP combined shall not exceed 9.9 tons per year. [06-096 C.M.R. ch. 115, BPT]
- B. Compliance with the annual VOC and HAP emission limits shall be demonstrated through the recordkeeping outlined below with calculations of emissions performed at least once per calendar year from the Loading Rack, storage tanks, and fugitive sources (i.e. – pumps, valves, flanges). Additional calculation of emissions to demonstrate compliance with these limits shall be performed upon request by the Department. [06-096 C.M.R. ch. 115, BPT]
- C. Records shall be maintained showing the following information for each of the petroleum storage tanks [06-096 C.M.R. ch. 115, BPT]:
 1. Quantity and type of petroleum liquid stored in each tank;
 2. Calculations of maximum true vapor pressure, as necessary to calculate tank emissions;
 3. Average storage temperature;
 4. Throughput for each tank;
 5. Tank emissions calculated in accordance with the most current version of AP-42 or other alternative method approved by the Department;
 6. Tank truck emissions assuming 1.3% of the vapors are displaced during loading (based on assumed capture efficiency of 98.7% as given in 40 C.F.R. Part 63, Subpart R);
 7. Dates and results of required VRU testing; and
 8. HAP speciation data as given by the American Petroleum Institute (API) or other speciation data as obtained by a supplier.
- D. Webber shall maintain records of all monthly inspections and leak inspections of all equipment utilizing sight, smell, and sound. [06-096 C.M.R. ch. 115, BPT]

(22) Annual Emission Statement

In accordance with *Emission Statements*, 06-096 C.M.R. ch. 137, Webber Tanks shall report to the Department, in a format prescribed by the Department, the information necessary to accurately update the State's emission inventory for reporting year 2023, after

which Webber Tanks will no longer be required to comply with this rule. The emission statement shall be submitted as specified by the date in 06-096 C.M.R. ch. 137.

In reporting year 2023, Webber Tanks shall report to the Department emissions of hazardous air pollutants as required by 06-096 C.M.R. ch. 137, § (3)(C). Webber Tanks 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)]

The following is a new Specific Condition of Air Emission License A-161-7-G-R.

(24) Generator #1

- A. Generator #1 shall be limited to 100 hours of operation per calendar year, excluding operating hours during emergency situations. [06-096 C.M.R. ch. 115, BACT]
- B. Webber Tanks 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 each unit operated for emergency purposes, the number of hours each unit operated for non-emergency purposes, and the reason the engine was in operation during each time. [06-096 C.M.R. ch. 115, BACT]
- C. The fuel sulfur content for Generator #1 shall be limited to 0.0015% sulfur by weight. Compliance shall be demonstrated by fuel delivery receipts from the supplier, fuel supplier certification, certificate of analysis, or testing of the tank containing the fuel to be fired. [06-096 C.M.R. ch. 115, BACT]
- D. Emissions shall not exceed the following [06-096 C.M.R. ch. 115, BACT]:

Unit	PM (lb/hr)	PM₁₀ (lb/hr)	PM_{2.5} (lb/hr)	SO₂ (lb/hr)	NO_x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Generator # 1	0.23	0.23	0.23	0.01	8.46	1.82	0.69

E. Visible Emissions

Visible emissions from Generator #1 shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 115, BACT]

- F. Emergency generators and/or fire pumps are only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Emergency generators and/or fire pumps are not to be used for prime power when reliable offsite power is available; nor to operate or to be contractually obligated to be available in a demand response program, during a

period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity.

- (25) If the Department determines that any parameter value pertaining to construction and operation of the proposed emissions units, including but not limited to stack size, configuration, flow rate, emission rates, nearby structures, etc., deviates from what was submitted in the application or ambient air quality impact analysis for this air emission license, Webber Tanks may be required to submit additional information. Upon written request from the Department, Webber Tanks shall provide information necessary to demonstrate AAQS will not be exceeded, potentially including submission of an ambient air quality impact analysis or an application to amend this air emission license to resolve any deficiencies and ensure compliance with AAQS. Submission of this information is due within 60 days of the Department's written request unless otherwise stated in the Department's letter.

[06-096 C.M.R. ch. 115, § 2(O)]

DONE AND DATED IN AUGUSTA, MAINE THIS 10th DAY OF July, 2023.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY:  for
MELANIE LOYZIM, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-161-71-G-R.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 5/10/23

Date of application acceptance: 5/15/23

Date filed with the Board of Environmental Protection:

This Order prepared by Chris Ham, Bureau of Air Quality.

