



DEPARTMENT ORDER

**Global Companies LLC
Cumberland County
South Portland, Maine
A-432-71-P-M**

**Departmental
Findings of Fact and Order
Air Emission License
Amendment #2**

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

Global Companies LLC (Global) was issued Air Emission License A-432-71-N-R on 1/23/2013, for the operation of emission sources associated with their petroleum storage and distribution facility. The license was subsequently amended on 3/14/2016 (A-432-71-O-M).

The equipment addressed in this license amendment is located at 1 Clark Road in South Portland, Maine.

Global has requested a minor revision to their license in order to incorporate requirements from the Consent Decree between the United States Environmental Protection Agency (EPA) and Global (Civil Action No. 2:19-cv-00122-DBH, D. Me., 2019).

The following items are also included in this license amendment:

1. Clarification of how compliance with the existing facility-wide emissions limits shall be demonstrated;
2. Incorporation of changes to visible emission limits due to recent revisions to *Visible Emissions Regulation*, 06-096 Code of Maine Rules (C.M.R.) ch. 101; and
3. Alignment of the maximum sulfur content limit contained in the license for the fuel oil fired in the boilers, hot oil heater, and emergency generator with the current version of 38 M.R.S. § 603-A, *Low Sulfur Fuel*.

B. Emission Equipment

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

Fuel Burning

Equipment	Max. Capacity (MMBtu/hr)	Fuel Type	Fuel Sulfur Limit	Date of Manuf.	Date of Install.	Stack #
Boiler #1	16.8	#6 Fuel Oil	0.5%	1961	1961	1
	17.3	Natural Gas	N/A			
Boiler #2	16.8	#6 Fuel Oil	0.5%	1961	1961	2
	17.3	Natural Gas	N/A			
Hot Oil Heater	3.1	Distillate Fuel	0.0015%	2003	2009	5
		Natural Gas	N/A			
Emergency Generator #1	0.73	Distillate Fuel	0.0015%	1992	1992	3
Vapor Combustion Unit (VCU)	26.0	Propane	N/A	2003	2003	4

Process Equipment

Equipment	Production Rate	Pollution Control Equipment	Stack #
Loading Rack	2,400 gal/min of distillate/#6 fuel oil loaded	VCU for any truck which the most recent previous load was gasoline	4

Petroleum Storage Tanks

Equipment	Capacity (gallons)	Product Stored	Roof Type	Date Installed
Tank #1*	2,300,000	#6 Fuel Oil	Fixed	1915
Tank #2*	2,300,000			1915
Tank #3*	2,300,000			#6 Fuel Oil / Asphalt
Tank #4	1,500,000	Distillate Fuel		1916
Tank #5	2,300,000			1922
Tank #6	2,300,000			1922
Tank #7	2,300,000			1922
Tank #8	1,550,000		External Floating	1923
Tank #9	3,360,000	Asphalt	Fixed	1974
Tank #14	410,000	Distillate Fuel	External Floating	1934
Tank #15	410,000			1934
Tank #16	6,800,000			Fixed

*A maximum of two tanks may store #6 fuel oil at any given time.

C. Definitions

Continuously means equally spaced data points with at least one valid data point in each successive 15-minute period. A minimum of three valid 15-minute periods constitutes a valid hour. This definition is used with respect to operation of parameter monitors required by this license.

Distillate Fuel means the following:

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

Emergency Generator means a generator set consisting of an engine and electrical generator. In accordance with 40 C.F.R. Part 63, 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 40 C.F.R. Part 63, 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, but are not limited to, 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; and
- Use of an engine to pump water in the case of fire, flood, natural disaster, or severe weather conditions.

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.

- a. 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.
- b. 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 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.

Heated Bulk Storage Tank means a bulk storage tank with a capacity greater than 30,000 gallons containing either #6 fuel oil or asphalt. Pursuant to this definition, Global Tanks #1, #2, #3, and #9 are heated bulk storage tanks.

Non-heating Day means any calendar day during which heat is not added to one of the heated bulk storage tanks. Multiple non-heating days may accrue on any day where multiple heated bulk storage tanks are not heated on the same day, with each heated bulk storage tank that is not heated counting as a separate non-heating day.

D. Revision Description

This license amendment addresses the following items:

1. Incorporation of Consent Decree Provisions

Global entered into a Consent Decree (Civil Action No. 2:19-cv-00122-DBH, D. Me., 2019) with EPA that became effective on December 19, 2019. The Consent Decree required Global to apply to amend its air emission license within 60 days of the effective date to incorporate conditions at least as stringent as those set forth in subparagraphs 11(a)-(c) of the Consent Decree. Those requirements are:

- a. Global shall have no more than four (4) heated bulk storage tanks containing either #6 fuel oil or asphalt. Of those four tanks, no more than two (2) shall contain #6 fuel oil at any one time.
- b. Global shall not apply heat to the four heated bulk storage tanks for at least 120 non-heating days in aggregate, on a 12-month rolling total basis.
- c. Global shall not exceed a throughput of 50 million gallons per year (gpy) for #6 fuel oil and 75 million gpy of asphalt, both on a 12-month rolling total basis.

These conditions will be incorporated into Global's air emission license. Additionally, the Department will clarify the methods of documenting compliance with the facility's existing facility-wide annual volatile organic compounds (VOC) emission limit, which is more stringent than the annual VOC emissions which would result from compliance with the requirements of the Consent Decree, described above, alone.

The Consent Decree also requires Global to install, operate, and maintain mist eliminators on the vents of each heated bulk storage tank to reduce odors from the tanks. Global plans to comply with this requirement by routing all vents from the heated bulk storage tanks to a single mist eliminator. Additionally, Global has chosen to voluntarily install a carbon bed after the mist eliminator to further reduce emissions of odorous compounds, such as hydrogen sulfide.

The Bureau of Air Quality does not have the authority to regulate odor. Although the Department expects this equipment will reduce emissions of VOC to some extent, the effectiveness in reducing VOC emissions is unknown at this time. Additionally, the Consent Decree did not establish any VOC control effectiveness requirement for this equipment. Therefore, the Department does not consider the mist eliminator and carbon bed to be emissions control equipment for the purposes of this license amendment, and their operation or efficiency shall not be relied upon to demonstrate compliance with emission limits contained in this license amendment. In other words, this equipment will be given no credit for emissions reduction, and all emissions calculations and

compliance demonstrations will be performed assuming no reduction of VOC emissions by the mist eliminator or carbon bed.

2. Compliance with Existing Facility-Wide Limits

The requirements of the Consent Decree are intended to limit potential emissions from Global to below major source thresholds, i.e., below 50 ton per year (tpy) of volatile organic compounds (VOC). However, Global is already subject to a more stringent facility-wide emission limit of 21.9 tpy pursuant to Condition (21)(A) of Air Emission License A-432-71-N-R issued 1/23/2013. In this license amendment, the Department is clarifying and re-affirming that this emission limit is inclusive of all emissions of VOC from the facility including, but not limited to, emissions from the following:

- Petroleum Bulk Storage Tanks (both heated and unheated);
- The Loading Rack - including loading of trucks not required to be controlled by the vapor combustion unit (VCU);
- Tank Maintenance Activities (e.g., tank degassing, tank cleaning);
- Losses from Facility Piping; and
- Combustion Equipment (e.g., boilers, hot oil heater, and emergency generator).

The approved methods for calculating actual emissions from the facility to demonstrate compliance with the annual VOC emission limit are addressed in the Best Practical Treatment (BPT) section below.

3. Changes to *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101

In March 2019, the Department updated the standards in *Visible Emissions Regulation*, 06-096 C.M.R. ch. 101. The new standards went into effect on January 1, 2020. This revision updates all visible emission limits to the currently applicable standards.

4. Clarification of Fuel Sulfur Content

In 2015, the statute which establishes the maximum sulfur content of fuel oil was amended.

Boilers #1 and #2 are licensed to fire residual fuel oil (#6 fuel oil). Pursuant to 38 M.R.S. § 603-A(2)(A)(1) and (2), as of July 1, 2018, no person shall import, distribute, or offer for sale any residual fuel oil with a sulfur content greater than 0.5% by weight. Therefore, the residual fuel purchased or otherwise obtained for use in Boilers #1 and #2 shall not exceed 0.5% by weight. This is consistent with the current requirement in Global's license. In this amendment, obsolete Conditions referring to the previous fuel sulfur content limit are removed.

The Hot Oil Heater and Emergency Generator #1 are licensed to fire distillate fuel which, by definition, has a sulfur content of 0.5% or less by weight. Pursuant to 38 M.R.S. § 603-A(2)(A)(3), as of July 1, 2018, no person shall import, distribute, or offer for sale any distillate fuel with a sulfur content greater than 0.0015% by weight (15 ppm). Therefore, the distillate fuel purchased or otherwise obtained for use in the Hot Oil Heater and Emergency Generator #1 shall not exceed 0.0015% by weight (15 ppm). This is consistent with the current requirement in Global's license for the Hot Oil Heater. However, the sulfur content limit for the fuel fired in Emergency Generator #1 is incorrectly listed as 0.3%. In this amendment, obsolete Conditions referring to the previous fuel sulfur content limit for the Hot Oil Heater are removed and the fuel sulfur content limit for Emergency Generator #1 is corrected.

E. 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.

A "modification" is defined in *Definitions Regulation*, 06-096 C.M.R. ch. 100 as any physical change or change in the method of operation of a source that would result in the emission increase of any regulated pollutant. (Some noted exceptions are also included in the definition.) The operational limits imposed by the Consent Decree, although less stringent than the State license, do not absolve Global of the previously licensed requirement to limit facility-wide emissions of VOC to 21.9 tpy. Installation of the mist eliminator and carbon bed, although a physical change, will not cause any increase in emissions of any regulated pollutant. The remaining license changes are points of clarification and not physical changes or changes in the method of operation of the source. None of the changes proposed in this amendment meet the definition of modification, and therefore, this amendment is determined to be a minor revision and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 C.M.R. ch. 115.

F. Facility Classification

With the annual fuel limits and annual SO₂ limit on the boilers, the operating hours restriction on Emergency Generator #1, and the facility-wide annual VOC emission limit, the facility is licensed as follows:

- As a synthetic minor source of air emissions, because Global 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.

BPT was previously determined to include a facility-wide VOC emission limit of 21.9 tpy on a 12-month rolling total basis pursuant to Air Emission License A-432-71-N-R (issued 1/23/2013), Condition (21)(A). This license amendment clarifies the scope of that limit and establishes the monitoring, testing, and recordkeeping to be used to demonstrate compliance with that limit.

B. Facility-Wide VOC Limit Scope

Global's facility-wide VOC emission limit includes emissions from all licensed emissions equipment and processes, including emissions from petroleum storage tanks (both heated and unheated), the loading rack and associated vapor combustion unit (VCU), facility piping, and licensed combustion equipment (i.e., boilers, hot oil heater, and generator). In addition to emissions from normal operation, emissions from both routine and non-routine maintenance activities shall be included, e.g., tank degassing and tank cleaning.

The scope of this emission limitation does not include emissions from non-licensed equipment or processes which are considered insignificant activities pursuant to 06-096 C.M.R. ch. 115, Appendix B.

C. Compliance Demonstration

Compliance with the facility-wide VOC emission limit shall be demonstrated by calculating actual emissions at least once annually as required by *Emission Statements*, 06-096 C.M.R. ch. 137. However, Global shall maintain records necessary to calculate annual VOC emissions for any consecutive 12-month period and shall provide a demonstration of compliance with the facility-wide VOC emission limit for any consecutive 12-month period upon request by the Department.

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

1. Heated Bulk Storage Tanks

As outlined in the Consent Decree and Global's application, vents from all the heated bulk storage tanks will be routed to a mist eliminator followed by carbon bed. The operation of this equipment necessitates the collection of emissions into a single stream

and for a flow to be induced. These conditions will allow for more accurate testing of emissions than was previously practicable.

Therefore, emissions from the heated bulk storage tanks shall be determined through performance testing conducted annually with no more than 14 months between tests. Initial testing shall be performed within 180 days of startup of the mist eliminator. Testing shall be conducted such that emission factors are developed for both standing losses (i.e., periods when no tanks are being filled) and working losses (i.e., periods when at least one tank is actively being filled). Additional details of how the performance testing will be conducted will be addressed in the performance test protocol, which is required to be submitted to and approved by the Department in accordance with the Bureau of Air Quality's Performance Testing Guidance. Global shall develop new emission factors after each subsequent performance test. When calculating emissions from the heated bulk storage tanks, Global shall use emission factors developed from the most recent performance test.

Testing shall be performed under conditions that represent normal, maximum operation. To document normal operating conditions, both during the test and throughout the year, Global shall continuously monitor and record the liquid temperature of each heated tank and the fan speed of the heated tank vent collection system.

Global shall conduct the performance testing prior to the exhaust stream entering the mist eliminator and carbon bed. Since this equipment is not considered to be licensed emissions control equipment, testing must be performed prior to the exhaust stream entering the system. Although it is assumed this equipment will reduce VOC emissions, Global must demonstrate compliance without taking this benefit into account. No (zero) reduction efficiency or emissions reduction will be allowed in the calculations for this equipment's use. This will ensure that the emission factors developed are conservatively high, meaning emissions will always be over-estimated and never under-estimated for this equipment.

A tank that is experiencing a non-heating day shall be assumed to be emitting at the same rate as a normal operating (heated) day unless the tank is being (or has been) emptied and degassed or the tank vents have been sealed such that vapor cannot escape.

Until initial testing is completed, Global shall estimate emissions from the heated bulk storage tanks using emission factors developed from previous site-specific testing conducted at the facility in 2012 for asphalt and in 2013 for residual oil.

2. Non-Heated Bulk Storage Tanks

VOC emissions from non-heated bulk 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*.¹

3. 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 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.

4. Loading Rack

Global utilizes a John Zink vapor combustion unit (VCU) on the loading rack to control emissions of VOC when loading trucks for which the most recent previous load was gasoline. This equipment is subject to an emission limit of 10 milligrams of VOC per liter of product transferred. Compliance is demonstrated by performance testing conducted every five years. VOC emissions from the VCU shall be based on the liters of product transferred and the emission rate demonstrated at the most recent performance test.

Emissions from the loading of trucks for which the most recent previous load was not gasoline are not required to be controlled by the VCU. Global shall estimate emissions from the uncontrolled loading of asphalt and residual oil by using emission factors developed from previous site-specific testing conducted at the facility in 2012 for asphalt and in 2013 for residual oil. Uncontrolled loading of any distillate product shall be calculated in accordance with the most current version of AP-42, Fifth Edition, Volume 1, Chapter 5.2, *Transportation and Marketing of Petroleum Liquids*.²

5. Facility Piping

Operation of the facility's equipment will result in fugitive emissions of VOC from the plant's piping. Global shall keep an updated inventory of equipment (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 1995.³

6. Combustion Equipment

Combustion equipment, including Boilers #1 & #2, the Hot Oil Heater, and Emergency Generator #1, emit small amounts of VOC due to incomplete combustion. VOC

¹ <https://www3.epa.gov/ttn/chief/ap42/ch07/index.html>

² <https://www3.epa.gov/ttn/chief/ap42/ch05/index.html>

³ <https://www3.epa.gov/ttnchie1/efdocs/equiplks.pdf>

emissions from this equipment shall be estimated based on the amount of fuel fired and the equipment's licensed emission limits.

D. Recordkeeping Requirements

Global shall keep the following records in order to calculate emissions as described above for compliance demonstration with the facility-wide annual VOC emission limit:

1. VOC emission factors developed from the most recent performance testing for the heated bulk storage tanks for both standing and working losses;
2. Hours the heated bulk storage tanks spent being filled (i.e., experiencing working losses) on a monthly basis;
3. Monthly throughput for each heated and non-heated bulk storage tank;
4. Equipment and product information necessary to calculate emissions from the non-heated bulk storage tanks in accordance with AP-42, Chapter 7;
5. Process and product information necessary to calculate emissions from tank maintenance operations in accordance with AP-42, Chapter 7;
6. For loading rack emissions controlled by the VCU, liters of product transferred on a monthly basis;
7. VOC emission rate demonstrated at the most recent performance test for the VCU;
8. Equipment and product information necessary to calculate emissions from the loading rack for emissions not controlled by the VCU in accordance with AP-42, Chapter 5.2;
9. Equipment and product information necessary to calculate emissions from facility piping in accordance with EPA's *Protocol for Equipment Leak Emission Estimates*; and
10. Fuel use on a monthly basis for Boilers #1 & #2, the Hot Oil Heater, and Emergency Generator #1.

E. Operational Monitoring

Global shall record data and maintain records for the following monitoring values for the heated bulk storage tanks and their vent collection system:

1. Liquid temperature (hourly average) of each heated tank monitored and recorded continuously; and
2. Fan speed (hourly average) of the heated tank vent collection system monitored and recorded continuously.

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. Only licensed equipment is included, i.e., emissions from insignificant activities are excluded. Similarly, unquantifiable fugitive particulate matter emissions are not included. Maximum potential emissions were calculated based on the following assumptions:

- For Boilers #1 & #2, the worst-case scenario (by pollutant) of either firing 180 million scf of natural gas or 1.2 million gallons of #6 fuel oil with a sulfur content of 0.5% by weight;
- For the Hot Oil Heater, the worst-case scenario (by pollutant) of either unlimited firing of natural gas or unlimited firing of distillate fuel with a sulfur content of 0.0015% by weight;
- Operating Emergency Generator #1 for 100 hrs/yr firing distillate fuel with a sulfur content of 0.0015% by weight;
- Unlimited operation of the VCU; and
- A facility-wide VOC limit of 21.9 tpy.

Please note, this information provides the basis for fee calculation only and should not be construed to 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	SO ₂	NO _x	CO	VOC	Total HAP
Boilers #1 & #2	18.0	18.0	47.3	33.0	7.6	–	–
Hot Oil Heater	1.1	1.1	–	1.9	1.1	–	–
Emergency Generator #1	–	–	–	0.2	–	–	–
VCU	0.9	0.9	1.9	16.2	9.3	–	–
Facility-Wide	–	–	–	–	–	21.9	9.9
Total TPY	20.0	20.0	49.2	51.3	18.0	21.9	9.9

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-432-71-P-M subject to the conditions found in Air Emission License A-432-71-N-R, in amendment A-432-71-O-M, 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

This license is intended to concatenate all currently applicable Specific Conditions into one location. No changes to requirements are intended except for clarity and consistency and where specifically addressed in the Findings of Fact.

Therefore, the following Conditions replace all previous Specific Conditions of Air Emission License A-432-71-N-R and A-432-71-O-M.

(16) **Boilers #1 & #2**

A. Fuel

1. The total natural gas fired in Boilers #1 and #2 combined shall not exceed 180 million scf on a 12-month rolling total basis. [06-096 C.M.R. ch. 115, BPT]
2. The total #6 fuel oil fired in Boilers #1 and #2 combined shall not exceed 1.2 million gallons on a 12-month rolling total basis. [06-096 C.M.R. ch. 115, BPT]
3. Global shall not purchase or otherwise obtain #6 fuel oil for use in Boilers #1 or #2 with a maximum sulfur content that exceeds 0.5% by weight.
[06-096 C.M.R. ch. 115, BPT]

4. Compliance with the fuel use and sulfur content limits shall be demonstrated by fuel records showing the quantity, type, and the percent sulfur of the fuel used. Records of annual fuel use shall be kept on a monthly and 12-month rolling total basis. Fuel sulfur content 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, BPT]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Boiler #1 (natural gas)	PM	0.05	06-096 C.M.R. ch. 115, BPT
Boiler #2 (natural gas)	PM	0.05	06-096 C.M.R. ch. 115, BPT
Boiler #1 (#6 fuel oil)	PM	0.20	06-096 C.M.R. ch. 103, § 2(A)(1)
Boiler #2 (#6 fuel oil)	PM	0.20	06-096 C.M.R. ch. 103, § 2(A)(1)

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

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler #1 (natural gas)	0.87	0.87	0.01	1.68	1.41	0.09
Boiler #2 (natural gas)	0.87	0.87	0.01	1.68	1.41	0.09
Boiler #1 (#6 fuel oil)	3.36	3.36	8.83	6.16	0.56	0.03
Boiler #2 (#6 fuel oil)	3.36	3.36	8.83	6.16	0.56	0.03

D. When firing natural gas, visible emissions from Boilers #1 or #2 shall each not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 3(A)(3)]

E. When firing #6 fuel oil, visible emissions from Boilers #1 or #2 shall each not exceed 30% opacity on a six-minute block average basis, except for periods of startup, shutdown, or malfunction during which time Global may comply with the following work practice standards in lieu of the numerical visible emissions standard: [06-096 C.M.R. ch. 101, § 3(A)(1)(a)]

1. Maintain a log (written or electronic) of the date, time, and duration of all operating time, startups, shutdowns, and malfunctions for each boiler;
2. Develop and implement a written startup and shutdown plan for each boiler;

3. Ensure the duration of each unit startup, shutdown, or malfunction does not exceed one hour per occurrence; and
 4. Operate each boiler at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.
- F. Global shall comply with all requirements of 40 C.F.R. Part 63, Subpart JJJJJ applicable to Boilers #1 and #2 including, but not limited to, the following: [incorporated under 06-096 C.M.R. ch. 115, BPT]
1. The facility shall implement a boiler tune-up program. [40 C.F.R. § 63.11223]
 - 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
Existing oil-fired boilers that are not designated as "Boilers with less frequent tune up requirements"	Every 2 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) As applicable, inspect the burner, and clean or replace any component of the burner as necessary. Delay of the burner inspection until the next scheduled shutdown is permitted, not to exceed 36 months from the previous inspection. [40 C.F.R. § 63.11223(b)(1)]
 - (2) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern, consistent with the manufacturer's specifications. [40 C.F.R § 63.11223(b)(2)]
 - (3) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure it is correctly calibrated and functioning properly. Delay of the inspection until the next scheduled shutdown is permitted, not to exceed 36 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. Tune-Up Report: A tune-up report shall be maintained onsite and, if requested, submitted to the Department and/or EPA. 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;

(2) A description of any corrective actions taken as part of the tune-up of the boiler; and

(3) The types and amounts of fuels used over the 12 months prior to the tune-up of the boiler, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit. [40 C.F.R. § 63.11223(b)(6)]

2. Compliance Report

A compliance report shall be prepared by March 1st biennially which covers the previous two 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 40 C.F.R. §§ 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 40 C.F.R. §§ 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 JJJJJ 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 tune-up, 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. EPA requires submission of Notification of Compliance Status reports for tune-ups and energy assessments through their electronic reporting system. [40 C.F.R. § 63.11225(a)(4)(vi)]

(17) **Hot Oil Heater**

A. Fuel

1. The Hot Oil Heater shall fire only natural gas or distillate fuel. [06-096 C.M.R. ch. 115, BPT]
2. Global shall not purchase or otherwise obtain distillate fuel for use in the Hot Oil Heater with a maximum sulfur content that exceeds 0.0015% by weight (15 ppm). [06-096 C.M.R. ch. 115, BPT]
3. Compliance with the sulfur content limit shall be demonstrated by fuel records showing the quantity, type, and the percent sulfur of the fuel used. Records of annual fuel use shall be kept on a monthly and 12-month rolling total basis. Fuel sulfur content 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, BPT]

B. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Hot Oil Heater (natural gas)	PM	0.05	06-096 C.M.R. ch. 115, BPT
Hot Oil Heater (distillate fuel)	PM	0.08	06-096 C.M.R. ch. 115, BPT

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

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Hot Oil Heater (natural gas)	0.16	0.16	–	0.30	0.25	0.02
Hot Oil Heater (distillate fuel)	0.25	0.25	–	0.44	0.11	0.01

D. When firing natural gas, visible emissions from the Hot Oil Heater shall not exceed 10% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101, § 3(A)(3)]

E. When firing distillate fuel, visible emissions from the Hot Oil Heater shall not exceed 20% opacity on a six-minute block average basis. [06-096 C.M.R. ch. 101 § 3(A)(2)]

(18) **Emergency Generator #1**

A. Global shall not purchase or otherwise obtain distillate fuel for use in Emergency Generator #1 with a maximum sulfur content that exceeds 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, BPT]

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

Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Emergency Generator #1	0.23	0.23	–	3.22	0.69	0.26

C. Visible Emissions

Visible emissions from Emergency Generator #1 shall not exceed 20% opacity on a six-minute block average basis except for periods of startup during which time Global may comply with the following work practice standards in lieu of the numerical visible emissions standard. [06-096 C.M.R. ch. 101, § 3(A)(4)]

1. Maintain a log (written or electronic) of the date, time, and duration of all generator startups.
2. Operate Emergency Generator #1 in accordance with the manufacturer’s emission-related operating instructions.

3. Minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations shall apply.
 4. Operate Emergency Generator #1, including any associated air pollution control equipment, at all times in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the unit.
- D. Emergency Generator #1 shall meet the applicable requirements of 40 C.F.R. Part 63, Subpart ZZZZ, including the following:
[incorporated under 06-096 C.M.R. ch. 115, BPT]
1. Global shall meet the following operational limitations for Emergency Generator #1:
 - 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
 - b. 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. 115]

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

3. Non-Resetable Hour Meter
A non-resettable hour meter shall be installed and operated on the engine.
[40 C.F.R. § 63.6625(f)]
4. Maintenance, Testing, and Non-Emergency Operating Situations
 - a. As an emergency engine, there is no limit on operation during emergency situations. 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 to 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. 115]
 - b. Global 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, or Global shall develop a maintenance plan which provides to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 C.F.R. § 63.6625(e)]
6. 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]

(19) **Petroleum Storage Tanks**

- A. Global shall store only distillate fuel oil or residual petroleum products (including #6 fuel oil and asphalt) in their petroleum storage tanks. [06-096 C.M.R. ch. 115, BPT]
- B. Global shall conduct routine inspections of all petroleum storage tanks at a minimum of once every month around the perimeter of the tank and roof.
[06-096 C.M.R. ch. 115, BPT]

- C. Global shall maintain a log of all inspections documenting any detected leaks, holes, tears, or other openings, and the corrective action taken. [06-096 C.M.R. ch. 115, BPT]

(20) Loading Rack

- A. Global shall not exceed a process rate to the Loading Rack VCU of 2,400 gallons/minute of distillate fuel and residual petroleum products combined. Compliance shall be demonstrated by flow meters used for sales records. [06-096 C.M.R. ch. 115, BPT]
- B. The Loading Rack at Global shall be equipped with a Vapor Combustion Unit (VCU) that captures displaced VOC vapors whenever product is being loaded into a truck for which the most recent previous load was gasoline. [06-096 C.M.R. ch. 115, BPT]
- C. Global shall operate and maintain the VCU in accordance with the manufacturer's specifications. [06-096 C.M.R. ch. 115, BPT]
- D. All loading and vapor lines shall be equipped and maintained in good working order such that vapor tight fittings close automatically when disconnected and the pressure in the vapor collection system shall not be allowed to exceed +18 inches of water or a vacuum exceeding -6 inches of water. [06-096 C.M.R. ch. 115, BPT]
- E. A lower explosive limit (LEL) reading of 100% or greater obtained within one inch around any potential leak source of the tank truck, including all loading couplings, vapor lines, and fittings employed in the transfer of product, is prohibited. [06-096 C.M.R. ch. 115, BPT]
- F. VOC emissions from the VCU shall not exceed 10 milligrams per liter of product transferred. [06-096 C.M.R. ch. 115, BPT]
- G. Global shall conduct a compliance test of the VCU prior to June 15th of every fifth year (next test due by June 15, 2024). A report containing the test results shall be submitted to the Department within 30 days of the completion of testing in accordance with the Department's stack test protocol. [06-096 C.M.R. ch. 115, BPT]
- H. Global shall conduct a leak inspection of all equipment at the Loading Rack and around the VCU, utilizing sight, sound, and smell at a minimum of once per month. All leaks must be repaired as quickly as possible, but within 15 calendar days, with the first attempt at repair made no later than five days from the initial detection of the leak. [06-096 C.M.R. ch. 115, BPT]
- I. Global shall maintain an inspection log documenting all leak inspections. The log shall include date of inspection, any detected leaks, nature of the leak and detection method, date of repair attempts and methods used, details of any delays in repair, and the final

date of repair. Global shall make these records available for inspection by the Department. [06-096 C.M.R. ch. 115, BPT]

(21) **Facility-Wide Emission Limits**

- A. Global shall not exceed a facility-wide emission limit of 21.9 tpy of VOC on a 12-month rolling total basis. [06-096 C.M.R. ch. 115, BPT]
- B. Global shall not exceed a facility-wide emission limit of 9.9 tpy for all HAP combined on a 12-month rolling total basis. [06-096 C.M.R. ch. 115, BPT]
- C. Compliance with the facility-wide VOC emission limit shall be demonstrated by calculating actual emissions at least once annually as required by *Emission Statements*, 06-096 C.M.R. ch. 137. [06-096 C.M.R. ch. 115, BPT]
- D. Compliance with the facility-wide HAP emission limit 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. [06-096 C.M.R. ch. 115, BPT]
- E. Global shall maintain records necessary to calculate annual VOC emissions for any consecutive 12-month period and shall provide a demonstration of compliance with the facility-wide VOC emission limit for any consecutive 12-month period upon request by the Department. [06-096 C.M.R. ch. 115, BPT]
- F. Actual emissions of VOC shall be calculated as follows with all emissions summed to provide an annual total:
[06-096 C.M.R. ch. 115, BPT]
 - 1. Heated Bulk Storage Tanks
 - a. VOC emissions from the heated bulk storage tanks shall be determined through performance testing conducted in accordance with 40 C.F.R. Part 60, Appendix A, Method 25A or other test method approved by the Department. Performance tests shall be conducted annually with no more than 14 months between tests. Initial testing shall be performed within 180 days of startup of the mist eliminator.
 - b. Performance testing shall be conducted in accordance with the Bureau of Air Quality's Performance Testing Guidance and with the Performance Test Protocol, as approved by the Department.
 - c. The performance testing shall be conducted prior to the exhaust stream entering the mist eliminator and carbon bed.

- d. After each performance test is conducted, Global shall develop emission factors for both standing losses (i.e., periods when no tanks are being filled) and working losses (i.e., periods when at least one tank is actively being filled). The emission factors shall not assume any VOC control efficiency due to the mist eliminator or carbon bed. When calculating emissions from the heated bulk storage tanks, Global shall use emission factors developed from the most recent performance test.
 - e. Until initial testing (as described above) is completed, Global shall estimate emissions from the heated bulk storage tanks using emission factors developed from previous site-specific testing conducted at the facility in 2012 for asphalt and 2013 for residual oil.
2. Non-Heated Bulk Storage Tanks

VOC emissions from non-heated bulk 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*.
 3. Tank Maintenance

VOC emissions from tank maintenance operations (both planned and unplanned), including tank degassing and cleaning, shall be calculated in accordance with the methodology contained in the most current version of AP-42, Fifth Edition, Volume 1, Chapter 7.
 4. Loading Rack
 - a. VOC emissions from the VCU shall be based on the liters of product transferred and the emission rate demonstrated at the most recent performance test.
 - b. Emissions from the loading of trucks for which the most recent previous load was not gasoline are not required to be controlled by the VCU. Global shall estimate emissions from the uncontrolled loading of asphalt and residual oil by using emission factors developed from previous site-specific testing conducted at the facility in 2012 for asphalt and in 2013 for residual oil. Uncontrolled loading of any distillate product shall be calculated in accordance with the most current version of AP-42, Fifth Edition, Volume 1, Chapter 5.2, *Transportation and Marketing of Petroleum Liquids*.

5. Facility Piping

Global shall keep an updated inventory of equipment (e.g., valves, pump seals, connectors, flanges, etc.) and calculate fugitive emissions of VOC using emission factors obtained from EPA's *Protocol for Equipment Leak Emission Estimates*, EPA-453/R-95-017, dated November 1995.

6. Combustion Equipment

VOC emissions from combustion equipment (i.e., Boilers #1 & #2, the Hot Oil Heater, and Emergency Generator #1) shall be estimated based on the amount of fuel fired and the equipment's licensed emission limits.

G. Global shall keep the following records in order to calculate emissions as described above for compliance demonstration with the facility-wide annual VOC emission limit: [06-096 C.M.R. ch. 115, BPT]

1. VOC emission factors developed from the most recent performance testing for the heated bulk storage tanks for both standing and working losses;
2. Hours the heated bulk storage tanks spent being filled (i.e., experiencing working losses) on a monthly basis;
3. Monthly throughput for each heated and non-heated bulk storage tank;
4. Equipment and product information necessary to calculate emissions from the non-heated bulk storage tanks in accordance with AP-42, Chapter 7;
5. Process and product information necessary to calculate emissions from tank maintenance operations in accordance with AP-42, Chapter 7;
6. For loading rack emissions controlled by the VCU, liters of product transferred on a monthly basis;
7. VOC emission rate demonstrated at the most recent performance test for the VCU;
8. Equipment and product information necessary to calculate emissions from the loading rack for emissions not controlled by the VCU in accordance with AP-42, Chapter 5.2;
9. Equipment and product information necessary to calculate emissions from facility piping in accordance with EPA's *Protocol for Equipment Leak Emission Estimates*; and
10. Fuel use on a monthly basis for Boilers #1 & #2, the Hot Oil Heater, and Emergency Generator #1.

H. Global shall record data and maintain records for the following monitoring values for the heated bulk storage tanks and their vent collection system:
[06-096 C.M.R. ch. 115, BPT]

1. Liquid temperature (hourly average) of each heated tank monitored and recorded continuously; and
2. Fan speed (hourly average) of the heated tank vent collection system monitored and recorded continuously.

(22) **EPA Consent Decree**

The following Conditions are incorporated under 06-096 C.M.R. ch. 115, BPT pursuant to the requirements of Global's Consent Decree (Civil Action No. 2:19-cv-00122-DBH, D. Me., 2019) with EPA which became effective on December 19, 2019:

- A. Global shall have no more than four (4) heated bulk storage tanks containing either #6 fuel oil or asphalt. Of those four tanks, no more than two (2) shall contain #6 fuel oil at any one time;
- B. Global shall not apply heat to the four heated bulk storage tanks for at least 120 non-heating days in aggregate, on a 12-month rolling total basis; and
- C. Global shall not exceed a throughput of 50 million gallons per year (gpy) for #6 fuel oil and 75 million gpy of asphalt, both on a 12-month rolling total basis.

(23) **Consent Decree Recordkeeping**

Records documenting compliance with the requirements of the Consent Decree listed in Condition (22) shall be maintained and made available to the Department and/or EPA upon request. [06-096 C.M.R. ch. 115, BPT]

(24) **Fugitive Visible Emissions**

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed 20% opacity on a five-minute block average basis.
[06-096 C.M.R. ch. 115, BPT]

(25) **Annual Emission Statement**

A. In accordance with *Emission Statements*, 06-096 C.M.R. ch. 137, Global 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 by the applicable date specified in 06-096 C.M.R. ch. 137.

- B. Global shall keep the following records in order to comply with 06-096 C.M.R. ch. 137:
1. The amount of each type of fuel fired in Boilers #1 & #2, the Hot Oil Heater, and Emergency Generator #1 (each) on a monthly basis;
 2. The sulfur content of the residual fuel fired in Boilers #1 & #2;
 3. The sulfur content of the distillate fuel fired in the Hot Oil Heater and Emergency Generator #1;
 4. Capacity and monthly throughput of each heated and non-heated bulk storage tank;
 5. Calculations of the facility-wide VOC and/or HAP emissions on a calendar year total basis; and
 6. Hours each emission unit was active or operating on a monthly basis.
- C. In reporting year 2020 and every third year thereafter, Global shall report to the Department emissions of hazardous air pollutants as required by 06-096 C.M.R. ch. 137, § 3(C). Global 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 38 M.R.S. § 353-A(3). [38 M.R.S. § 353-A(1-A)]

DONE AND DATED IN AUGUSTA, MAINE THIS _____ DAY OF _____, 2020.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
GERALD D. REID, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-432-71-N-R.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 2/12/2020

Date of application acceptance: 2/26/2020

Date filed with the Board of Environmental Protection:

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