

**Gulf Oil Limited Partnership
Cumberland County
South Portland, Maine
A-390-71-J-R (SM)**

**Departmental
Findings of Fact and Order
Air Emission License**

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., § 344 and § 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Gulf Oil Limited Partnership (Gulf) located in South Portland, Maine has applied to renew their Air Emission License permitting the operation of emission sources associated with their petroleum storage and distribution facility.

B. Emission Equipment

The following equipment is addressed in this air emission license:

Petroleum Storage

<u>Tank</u>	<u>Capacity (Gallons)</u>	<u>Current Product Stored</u>	<u>Roof Type</u>	<u>Date Installed</u>
D1	4,062,198	gasoline/ethanol/distillate	Internal Floating	1950
D2	4,061,694	distillate/residual	Fixed	1950
D3	4,048,044	gasoline/ethanol distillate/residual	Internal Floating	1950
D4	2,243,094	distillate/residual	Fixed	1950
D5	4,062,870	distillate/residual	Fixed	1950
D6	4,062,660	distillate/residual	Fixed	1950
D7	3,404,016	gasoline/ethanol distillate/residual	Internal Floating	1953
D8	6,346,746	gasoline/ethanol distillate/residual	Internal Floating	1954
D9	841,638	gasoline/ethanol distillate/residual	Internal Floating	1959

Process Equipment

<u>Equipment</u>	<u>Production Rate</u>	<u>Pollution Control Equipment</u>
Loading Rack	7,600 gal/min	Vapor Recovery Unit

Gulf's license previously included Boiler #1 (25.5 MMBtu/hr) and Boiler #2 (12.0 MMBtu/hr). These boilers were used for heating of residual tanks. Gulf has significantly reduced the need for this heating capacity. Boilers #1 and #2 have been removed and all heating is now performed by equipment determined to be insignificant activities.

C. Application Classification

The application for Gulf includes the addition of ethanol storage. Therefore, the license is considered to be a renewal of current licensed emission units with a minor revision and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (last amended December 24, 2005). With the annual facility wide VOC limit, the facility is licensed below the major source thresholds and is considered a synthetic minor.

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 CMR 100 (last amended December 24, 2005). 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. Vapor Recovery Unit

Gulf operates a truck loading rack equipped with bottom loading and controlled by a rebuilt McGill Carbon Adsorption/Absorption Vapor Recovery Unit (VRU)

to capture Volatile Organic Compounds (VOCs). It was installed in 1995. The VRU controls emissions to less than 10 milligrams per liter of product loaded.

Gulf is also licensed to transfer up to 10 MMgal/year of distillate through top loading. Fugitive emissions from this process are calculated to be less than 1 ton/yr of VOCs. Additional control for the top loading of distillate is not required at this time.

C. Distillate Storage Tanks

Gulf currently operates four tanks with fixed roofs capable of storing petroleum products. Each of these tanks varies in throughput depending on the demand for distillates throughout the year.

D. Gasoline/Ethanol Storage Tanks

Gulf operates five tanks with internal floating roofs capable of storing gasoline, ethanol, or other petroleum products. Tanks D1, D3, D7, D8, and D9 are subject to 06-096 CMR 111 and shall be equipped, maintained and operated such that:

1. there is an internal floating roof with closure seal(s) between the roof edge and the tank wall and these are maintained so as to prevent vapor leakage,
2. the internal floating roof and the closure seal(s) will be maintained such that there are no holes, tears, or other openings in the seal or between the seal and the floating roof,
3. all storage tank openings, except stub drains, are equipped with covers, lids or seals which remain closed at all times,
4. all automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports,
5. all rim vents, if provided, are to be set to open only when the roof is being floated off the leg supports or at the manufacturers recommended setting,
6. if any holes, tears, or other openings are present the source shall make repairs as soon as practical, but no later than 15 calendar days with the first attempt at repair to be made no later than 5 days from the initial detection of the leak.

E. NSPS

Tanks D1 through D9 were all installed prior to 1973 and are therefore not subject to EPA New Source Performance Standards (NSPS) Subpart K, Ka, and Kb for Storage Vessels for Petroleum Liquids manufactured after June 11, 1973, with capacities greater than 40,000 gallons.

F. VOC RACT

Reasonably Available Control Technology for Facilities that emit Volatile Organic Compounds (VOC-RACT), 06-096 CMR 134 requires facilities that have the potential to emit forty (40) tons or more of VOC per calendar year apply VOC

RACT (Reasonable Available Control Technology) to their applicable VOC emissions.

In accordance with 06-096 CMR 134, Section 3(A)(1), Option A, the owner or operator must install and operate a system to capture and control VOC emissions such that the total VOC emissions do not exceed, on a daily basis, fifteen (15) percent of the uncontrolled daily VOC emissions. Gulf's use of cone internal floating roofs for gasoline storage tanks and a vapor recovery system that is rated at 10 mg/liter of product loaded meets the requirements of Chapter 134 by controlling VOC emissions such that VOC emissions do not exceed, on a daily basis, fifteen (15) percent of the uncontrolled daily VOC emissions.

G. Annual Emissions

Gulf shall be restricted to the following annual emissions, based on a 12 month rolling total:

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

	VOC	single HAP	total HAP
Facility Wide Limit	49.9	9.9	24.9

III. AMBIENT AIR QUALITY ANALYSIS

According to the 06-096 CMR 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling and monitoring are not required for a renewal if the total emissions of any pollutant released do not exceed the following:

<u>Pollutant</u>	<u>Tons/Year</u>
PM	25
PM ₁₀	25
SO ₂	50
NO _x	100
CO	250

Based on the above total facility emissions, Gulf 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 the emissions from this source:

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

The Department hereby grants Air Emission License A-390-71-J-R subject to the following conditions.

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

STANDARD 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 (38 M.R.S.A. §347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [06-096 CMR 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 CMR 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 115]

- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353. [06-096 CMR 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]
- (8) 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. The records shall be submitted to the Department upon written request. [06-096 CMR 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. 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 a renewal of a license or amendment shall not stay any condition of the license. [06-096 CMR 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 CMR 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
 - A. perform stack testing to demonstrate compliance with the applicable emission standards 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; or
 2. pursuant to any other requirement of this license to perform stack testing.
 - B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - C. submit a written report to the Department within thirty (30) days from date of test completion.[06-096 CMR 115]

- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.
- [06-096 CMR 115]
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]
- (15) Upon written request from 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 a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 115]

SPECIFIC CONDITIONS

- (16) Tanks D1, D3, D7, D8, and D9 shall be equipped, maintained, and operated such that [06-096 CMR 111]:
- A. There is an internal floating roof with closure seal(s) between the roof edge and the tank wall and these are maintained so as to prevent vapor leakage;
 - B. The internal floating roof and closure seal(s) will be maintained such that there are no holes, tears, or other openings in the seal or between the seal and the floating roof;
 - C. All storage tank openings, except stub drains, are equipped with covers, lids or seals which remain closed at all times;
 - D. All automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports;
 - E. All rim vents, if provided, are to be set to open only when the roof is being floated off leg supports or at the manufacturers recommended setting;
 - F. If any holes, tears or other openings are present the Department shall be notified within 10 days of discovery of such holes, tears, or openings and of the course of action to be taken for repair. Gulf shall demonstrate to the Department that the repairs were made as soon as practicable.
- (17) Gulf shall comply with the following source inspection requirements [06-096 CMR 111]:
- A. Routine inspections of floating roofs are conducted through roof hatches once every month.
 - B. A complete inspection of the cover and seal is to be performed at least once every ten years and each time the vessel is emptied and degassed. These inspections shall be conducted by visually inspecting the floating roof deck, deck fittings, and rim seals and may be conducted entirely from the top side of the floating roof as long as there is visual access to all deck components.
 - C. Gulf shall not empty and degas any storage tank for the purpose of performing a complete inspection between June 1 and August 31 of each calendar year.
- (18) The following records shall be maintained for a period of six years at the source and available for inspection by the Department [06-096 CMR 115, BPT]:
- A. Inspection log shall be kept documenting each inspection, any detected leaks, holes, tears, or other openings, and the corrective action taken to demonstrate compliance with Condition (16).
 - B. Monthly throughput specifying quantity and types of volatile petroleum liquids in each tank and the period of storage.

- C. Calculations showing annual VOC emissions from equipment seals, and transfer piping and fittings.
 - D. Average monthly product storage temperatures and maximum true vapor pressures or Reid vapor pressures of volatile petroleum liquids stored.
- (19) The bulk gasoline terminal shall be equipped, maintained and operated with a carbon adsorption system, which captures displaced VOC vapors whenever gasoline is being transferred or gasoline vapor is displaced from a tank truck. [06-096 CMR 115, BPT]
- (20) 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. Pressure gauges shall be maintained to document compliance with this limit. [06-096 CMR 112]
- (21) Gasoline loading shall be allowed only into tank trucks and trailers which have been properly certified pursuant to 40 CFR Part 60 Appendix A, Method 27 and maintained and labeled as vapor-tight in accordance with 06-096 CMR 120.
- (22) Any tank truck carrying gasoline or which has carried gasoline as the most recent previous load shall utilize the vapor collection system during the entire loading process. [06-096 CMR 115, BPT]
- (23) Gulf shall prevent VOC emissions from exceeding 100% of the lower explosive limit (LEL) 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 gasoline. [06-096 CMR 120]
- (24) VOC emissions from the carbon adsorption system shall not exceed 10 milligrams of VOC per liter of product transferred. [06-096 CMR 115, BPT]
- (25) Gulf shall conduct an annual compliance test of the vapor recovery unit prior to May 15th of each year beginning in the year 2003. A report containing the test results shall be submitted to the Department within 30 days of the completion of test in accordance with the Department's stack test protocol. [06-096 CMR 115, BPT]

(26) Gulf shall not exceed the following petroleum product throughput at the loading rack (based on a 12-month rolling total). Compliance shall be documented through records kept per Condition (18)(B).

1. gasoline: 330,000,000 gallons
2. ethanol: 33,000,000 gallons
3. distillate 310,000,000 gallons
4. JP-8/Kerosene: 150,000,000 gallons

[06-96 CMR 115, BPT]

(27) Gulf shall not exceed a process rate to the Loading Rack Vapor Recovery Unit of 7,600 gal/min. [06-096 CMR 115, BPT]

(28) Emission Limits

A. Gulf shall not exceed a facility wide emission limit of 49.9 tons per year of VOC based on a 12 month rolling total. [06-096 CMR 115, BPT]

B. Gulf shall not exceed a facility wide emission limit of 9.9 tons per year of any single HAP or 24.9 tons per year for all HAPs combined, each based on a 12 month rolling total. [06-096 CMR 115, BPT]

(29) **Annual Emission Statement**

In accordance with *Emission Statements*, 06-096 CMR 137 (last amended July 6, 2004), the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:

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

Reports and questions should be directed to:

Attn: Criteria Emission Inventory Coordinator
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017

Phone: (207) 287-2437

The emission statement must be submitted by July 1 or as otherwise specified in 06-096 CMR 137.

(30) **Air Toxics Emission Statement**

If Gulf exceeds the thresholds for HAPs listed in Appendix A of 06-096 CMR 137 in an inventory year, in accordance with 06-096 CMR 137 the licensee shall report, no later than July 1 every three years (2005, 2008, 2011, etc.) or as otherwise stated in 06-096 CMR 137, the information necessary to accurately update the State's toxic air pollutants emission inventory in a format prescribed by the Department containing the information required in 06-096 CMR 137.

Reports and questions should be directed to:

Attn: HAP Inventory Coordinator
Maine DEP
Bureau of Air Quality
17 State House Station
Augusta, ME 04333-0017

Phone: (207) 287-2437 [06-096 CMR 137]

(31) Gulf shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S.A. §605).

DONE AND DATED IN AUGUSTA, MAINE THIS _____ DAY OF _____ 2007.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAVID P. LITTELL, COMMISSIONER

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

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 8/30/07

Date of application acceptance: 9/14/07

Date filed with the Board of Environmental Protection: _____

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