

**PERMIT FOR PROCESS EQUIPMENT**

**STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF AIR MANAGEMENT**

1. Legal Firm Name of Permittee: Gulf Oil Limited Partnership
2. Address: 90 Everett Avenue, P.O. Box 9151, Chelsea, MA 02150-2337
3. Equipment Location: 428-500 Waterfront Street, New Haven, CT
4. Equipment Description (Model, I.D. #): Storage Tank #114

PERMIT TO:

Construct     Operate     Modify

FEDERAL REQUIREMENTS:

- NSPS (40 CFR Part 60) Subpart: Kb
- NESHAPS (40 CFR Part 61) Subpart:
- MACT (40 CFR Part 63) Subpart: R

OZONE NON-ATTAINMENT STATUS:

- severe (Major source if VOC or NOx > 25 TPY)
- serious (Major source if VOC or NOx > 50 TPY)

Date Issued	Exp. Date
1/9/02	NONE
Town No.	Premise No.
117	88
Permit No.	Stack No.
0353	14
Permit Fee:	
\$1,000	

TYPE OF POLLUTANT FOR WHICH THIS PREMISE IS A MAJOR SOURCE":

EPA SOURCE CLASS:		TSP	SOx	NOx	CO	VOC	PM-10	LEAD	OTHER
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
New Source	<input type="checkbox"/>								
Major Mod	<input type="checkbox"/>								
Minor Mod	<input checked="" type="checkbox"/>								

Arthur J. Rocque, Jr.

ARTHUR J. ROCQUE, JR.  
COMMISSIONER, DEPARTMENT OF  
ENVIRONMENTAL PROTECTION  
OR DESIGNATED AGENT

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**PART I. PROCESS DESCRIPTION**

**A. General Process Description**

Gulf Oil Limited Partnership is upgrading their existing distillate only aboveground storage tank (Tank #114) at its New Haven Terminal to enable them to store both gasoline and distillate products.

**B. Tank Design Specifications**

1. Tank Size: 4,046,784 gallons
2. Tank Height: 48 ft.
3. Tank Diameter: 120 ft.

**C. Control Equipment Design Specifications**

1. Control Type - Fixed roof in combination with an internal floating roof meeting the following specifications:
  - a. The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled.
  - b. The internal floating roof shall be equipped with a mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.
  - c. Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface. [40 CFR §60.423(a)]

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**PART I. PROCESS DESCRIPTION, continued**

**D. Stack Parameters**

1. Vent Height: 48 ft.
2. Minimum Distance from Vent to Property Line: 108 ft.

**PART II. OPERATING REQUIREMENTS**

Notwithstanding the design specifications or description provided in Part I, above, the permittee of the subject source shall comply with the following operating requirements.

**A. Operating Parameter Limitations**

1. Material Stored: Gasoline or Distillate Products
2. Maximum Annual Throughput: 424,507,641 gallons
3. Maximum Vapor Pressure of volatile organic liquids (VOL) being stored under actual storage conditions: < 11 psia (568 mm Hg)

**B. Operating and Maintenance Requirements**

1. The permittee shall ensure that all tank gauging or sampling devices are gas-tight except when tank gauging or sampling is taking place. [22a-174-20(a)(2)(A)]
2. The permittee shall ensure that there are no visible holes, tears or other openings in the seal or any seal fabric or materials. [22a-174-20(a)(8)(A)]
3. The permittee shall ensure that all openings except stub drains are equipped with covers, lids, or seals such that:
  - (a) the cover, lid or seal is in the closed position at all times except in actual use; and
  - (b) automatic bleeder vents are closed at all times; and
  - (c) rim vents, if provided, are set to open at the manufacturer's recommended setting. [22a-174-20(a)(8)(B)]

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**PART II. OPERATING REQUIREMENTS, continued**

4. Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface. [40 CFR §60.112b(a) (1) (C) (iii)]
5. Each opening in the internal floating roof except for automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use. [40 CFR §60.112b(a) (1) (C) (iv)]
6. Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating. [40 CFR §60.112b(a) (1) (C) (v)]
7. Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting. [40 CFR §60.112b(a) (1) (C) (vi)]
8. Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening. [40 CFR §60.112b(a) (1) (C) (vii)]
9. Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. [40 CFR §60.112b(a) (1) (C) (viii)]
10. Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. [40 CFR §60.112b(a) (1) (C) (ix)]

**PART II. OPERATING REQUIREMENTS, continued**

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**C. Emission Limits**

The permittee shall not exceed the emission limits stated herein at any time.

<u>Criteria</u> <u>Pollutants</u>	<u>TPY</u>
VOC	4.54

<u>Hazardous Air</u> <u>Pollutants</u>	<u>MASC *</u> <u>(ug/m<sup>3</sup>)</u>
Benzene	160
Cyclohexane	22,434
Ethylbenzene	9,294
n-Hexane	3,840
Toluene	8,012
Xylene	9,273

\* Maximum Allowable Stack Concentration

Demonstration of compliance with the above VOC and HAP emission limits shall be met by calculating the emission rates using EPA Tanks 4.09a or the latest revision of that program and material balances, respectively.

The above statement shall not preclude the Commissioner from requiring other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.

**PART III. STACK TESTING REQUIREMENTS**

Stack testing shall not be required at this time for this source.

**PART IV. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS**

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1. The permittee shall conduct routine inspections through roof hatches once per month. [22a-174-20(a)(8)(C)]
2. The permittee shall conduct a complete inspection of cover and seal whenever the tank is emptied for non-operational reasons but in any event at least once per year. [22a-174-20(a)(8)(D)]
3. After installing the control equipment as specified in Part I.C of this permit, the permittee shall visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel. [40 CFR §63.425(d), 40 CFR §60.113b(a)(1)]
4. The permittee shall visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Commissioner in the inspection report required in Part IV.C.3 of this permit. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible. [40 CFR §63.425(d), 40 CFR §60.113b(a)(2)]
5. Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than

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**PART IV. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS**

10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in Part IV.A.4 of this permit [40 CFR §63.425(d), 40 CFR §60.113b(a)(4)]

**B. Record Keeping Requirements**

1. The permittee shall keep records of the average monthly storage temperature, true vapor pressure, monthly fuel throughput and type of volatile organic compounds stored. [22a-174-20(a)(8)(E)]
2. The permittee shall keep a record of each inspection performed. Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings). [22a-174-20(a)(8)(F), 40 CFR §63.428(d), 40 CFR §60.115b(a)(2)]
3. The permittee shall keep readily accessible records showing the dimension of the storage tank and an analysis showing the capacity of the storage tank. These records shall be kept for the life of the tank. [40 CFR §63.427(c), 40 CFR 60.116b(b)]
4. The permittee shall maintain a record of the volatile organic liquid stored, the period of storage, and the maximum true vapor pressure of that volatile organic liquid during the respective storage period. [40 CFR §63.427(c), 40 CFR 60.116b(c)]
5. The permittee shall keep records of annual fuel throughput. Annual fuel throughput shall be based on any consecutive twelve (12) month time period and shall be determined by adding the current month's fuel throughput to that of the previous eleven (11) months. The Permittee shall make these calculations monthly.
6. The permittee shall maintain the records on premise and shall make them available to the Commissioner upon request for at least five (5) years.

**PART IV. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS, continued**

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1. Notify the Commissioner in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by Part IV.A.3 and Part IV.A.5 of this permit to afford the Commissioner the opportunity to have an observer present. If the inspection required by Part IV.A.5 of this permit is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Commissioner at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Commissioner at least 7 days prior to the refilling. [40 CFR §63.425(d), 40 CFR 60.113b(a)(5)]
2. Furnish the Commissioner with a report that describes the control equipment and certifies that the control equipment meets the specifications of Part I.C.1 and Part IV.A.3 of this permit. This report shall be an attachment to the notification required by 40 CFR §60.7(a)(3). [40 CFR §63.428(d), 40 CFR §60.115b(a)(1)]
3. If any of the conditions described in Part IV.A.4 of this permit are detected during the annual visual inspection required by Part IV.A.4 of this permit, a report shall be furnished to the Commissioner within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made. [40 CFR §63.428(d), 40 CFR §60.115b(a)(3)]

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**PART V. PREMISE REQUIREMENTS**

- A. The permittee shall not cause or permit the emission of any substance or combination of substances which creates or contributes to an odor beyond the property boundary of the premise that constitutes a nuisance as set forth in RCSA Section 22a-174-23.
- B. The permittee shall operate this facility at all times in a manner so as not to violate or contribute significantly to the violation of any applicable state noise control regulations under RCSA Section 22a-69-1 through 22a-69-7.4, inclusive.

**PART VI. ADDITIONAL TERMS AND CONDITIONS**

- A. This permit does not relieve the permittee of the responsibility to conduct, maintain and operate the regulated activity in compliance with all applicable requirements of any federal, municipal or other state agency. Nothing in this permit shall relieve the permittee of other obligations under applicable federal, state and local law.
- B. Any representative of the DEP may enter the permittee's site in accordance with constitutional limitations at all reasonable times without prior notice, for the purposes of inspecting, monitoring and enforcing the terms and conditions of this permit and applicable state law.
- C. This permit may be revoked, suspended, modified or transferred in accordance with applicable law.
- D. This permit is subject to and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut and conveys no property rights in real estate or material, nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the facility or regulated activity affected thereby. This permit shall neither create nor affect any rights of persons of municipalities who are not parties to this permit.

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- E.** Any document, including any notice, which is required to be submitted to the Commissioner under this permit shall be signed by a duly authorized representative of the permittee and by the person who is responsible for actually preparing such document, each of whom shall certify in writing as follows: "I have personally examined and am familiar with the information submitted in the documents and all attachments and certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief, and I understand that any false statement made in this document or its attachments may be punishable as a criminal offense." Any false statement in any information submitted pursuant to this permit may be punishable as a criminal offense in accordance with Connecticut General Statutes §22a-6, under §53a-157 of the Connecticut General Statutes.
- F.** Nothing in this permit shall affect the Commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of this or any other permit issued to the permittee by the Commissioner.
- G.** Within fifteen days of the date the permittee becomes aware of a change in any information submitted to the Commissioner under this permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the permittee shall submit the correct or omitted information to the Commissioner.
- H.** The date of submission to the Commissioner of any document required by this permit shall be the date such document is received by the Commissioner. The date of any notice by the Commissioner under this permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the Commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" means calendar day. Any document or action which is required by this permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.

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**PART VI. ADDITIONAL TERMS AND CONDITIONS, Continued**

- I. Any document required to be submitted to the Commissioner under this permit shall, unless otherwise specified in writing by the Commissioner, be directed to: Office of Assistant Director; Compliance & Field Operations Division; Bureau of Air Management; Department of Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

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Appendices attached:

- A 40 CFR 60, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984
- B 40 CFR 63, Subpart R - National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)