



Connecticut Department of

**ENERGY &  
ENVIRONMENTAL  
PROTECTION**

Transferred to: Equilon Enterprises  
LLC DBA Shell Oil Products US  
Date: 12/13/2017

**BUREAU OF AIR MANAGEMENT  
NEW SOURCE REVIEW PERMIT  
TO CONSTRUCT AND OPERATE A STATIONARY SOURCE**

Issued pursuant to Title 22a of the Connecticut General Statutes (CGS) and Section 22a-174-3a of the Regulations of Connecticut State Agencies (RCSA).

<b>Owner/Operator</b>	Motiva Enterprises, LLC
<b>Address</b>	481 East Shore Parkway, New Haven, CT 06512
<b>Equipment Location</b>	481 East Shore Parkway, New Haven, CT 06512
<b>Equipment Description</b>	Loading Rack with Vapor Control System
<b>Town-Permit Numbers</b>	117-0139
<b>Premises Number</b>	53
<b>Stack Number</b>	15
<b>Prior Permit Issue Dates</b>	January 18, 1989 (First Construction Permit issued to Exxon) March 8, 1989 (Temporary Operating Permit issued to Exxon) March 13, 1991 (Permit to Operate issued to Exxon) August 25, 1992 (Permit to Operate issued to Exxon) November 7, 2002 (Permit to Construct and Operate) October 10, 2003 (Minor Modification) January 12, 2007 (Minor Modification) February 19, 2010 (Minor Modification)
<b>Modification Issue Date</b>	February 11, 2015
<b>Expiration Date</b>	None

/s/Anne Gobin for  
Robert J. Klee  
Commissioner

February 11, 2015  
Date

## PERMIT FOR PROCESS EQUIPMENT

### STATE OF CONNECTICUT, DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION BUREAU OF AIR MANAGEMENT

#### PART I. PROCESS DESCRIPTION

Motiva Enterprises, New Haven Terminal (Motiva) is a bulk petroleum terminal with principal operations consisting of the receipt, storage, and distribution of gasoline and distillate products. The products are top and bottom loaded into transport tankers and the displaced gasoline vapors are delivered to a John Zink Carbon Adsorption/Vapor Recovery Unit or backup Jordan Technologies Thermal Oxidizing Unit. The products are stored in bulk aboveground storage tanks and then distributed through the terminal's truck loading rack.

#### A. Equipment Design Specifications

1. Bulk Petroleum Loading Rack
  - a. Maximum Gasoline Loading Throughput: 900,000,000 gallons/year
  - b. Maximum Overall Loading Throughput: 1,501,080,000 gallons/year

#### B. Control Equipment Specifications

1. Unit 1: John Zink Carbon Adsorption/Vapor Recovery System, Model S3-AAD-6-110-80-10
  - a. Guaranteed VOC Control Limitation: 10 mg/L of gasoline loaded
2. Unit 2: Jordan Technologies Thermal Oxidizing Unit, Model JT-TOS-105480
  - a. Guaranteed VOC Control Limitation: 10 mg/L of gasoline loaded

#### C. Operation of Equipment

1. At all times, the Permittee shall vent all gasoline loading rack emissions to either the vapor recovery system or the thermal oxidizing unit.
2. Equipment to which the loading rack emissions are vented shall be maintained in operation at all times that the loading rack is in operation or emitting air pollutants. This equipment includes all instruments which measure those source operating parameters which affect air pollutant emissions, air pollution control equipment, or any other instruments which measure data required by permit, order or regulation.

#### D. Stack Parameters (Unit 1/Unit 2)

1. Minimum Distance to Property Line: 100 feet/140 feet
2. Minimum Stack Height: 20 feet/48 feet
3. Typical Exhaust Gas Flow Rate: 0 - 1,871 acfm/16,710 scfm

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FIRM NAME: Motiva Enterprises LLC  
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### 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. Equipment: Bulk Petroleum Loading Rack
2. Unit 1: Control Equipment: John Zink Carbon Adsorption/Vapor Recovery System
  - a. Guaranteed VOC Control Limitation: 10 mg/L of gasoline loaded
3. Unit 2: Control Equipment (Back-up): Jordan Technologies Thermal Oxidizing Unit
  - a. Guaranteed VOC Control Limitation: 10 mg/L of gasoline loaded
  - b. Minimum Combustion Temperature: 200 °F

#### B. O&M Requirements for Unit 2

1. The Permittee shall install, calibrate, certify, operate and maintain a continuous monitoring system (CMS) for the Thermal Oxidizing Unit. The CMS shall be a flame-sensing device, such as an ultraviolet beam sensor or a thermocouple in proximity to the pilot light to indicate the presence of a flame.
2. If the flame goes out or if there is no flame present in the Thermal Oxidizing Unit, the flame-sensing device shall transmit a signal to shutdown the gasoline loading operations. When the Thermal Oxidizing Unit is shutdown, the loading rack shall be automatically shutdown unless switched over to the Carbon Adsorption/Vapor Recovery System.

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**PART II. OPERATING REQUIREMENTS, continued**

**C. Emission Limits**

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

1. For Gasoline Loading:

a. Criteria Pollutants

<u>Pollutant</u>	<u>mg/liter</u>	<u>TPY</u>
VOC (Stack)	10.0	37.52
VOC (Fugitive Emissions)	8.0	30.01
VOC (Total)		67.53
NOx		5.40
SOx		0.20
CO		29.8
TSP		0.23

2. For Distillate Loading:

a. Criteria Pollutants

<u>Pollutant</u>	<u>TPY</u>
VOC	3.97

3. Total Emissions for Gasoline and Distillate Loading, and for Fugitive Emissions:

a. Criteria Pollutants

<u>Pollutant</u>	<u>TPY</u>
VOC	71.50
NOx	5.40
SOx	0.20
CO	29.8
TSP	0.23

b. Hazardous Air Pollutants (HAPs)

This source shall not be a major federal HAP source, i.e., no individual HAP will exceed 10 tpy or total HAPs will not exceed 25 tpy.

This source shall not exceed the Maximum Allowable Stack Concentration (MASC) for any hazardous air pollutant emitted and listed in RCSA section 22a-174-29.

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#### PART II. OPERATING REQUIREMENTS, continued

4. Demonstration of compliance with the above emission limits shall be met through monitoring data required by this permit and by calculating the emissions using factors from the most recent source test data approved by the Department. Where source test data is unavailable, the Permittee shall use data from the equipment vendor. Where source test data and equipment vendor data are unavailable, the Permittee shall use data from EPA's AP-42 emission factors document.
5. 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 EMISSION TEST REQUIREMENTS

- A. Stack emission/performance testing shall be required for VOC.
- B. The Permittee shall conduct the initial Bureau approved emissions test to determine compliance with the VOC control limitation contained in Part II of this permit for the replacement John Zink Carbon Adsorption/Vapor Recovery System, Model S3-AAD-6-110-80-10 no later than 180 days after initial startup.
- C. The Permittee shall conduct Bureau approved emissions testing at least once over any consecutive five year period to determine compliance with the VOC control limitation contained in Part II of this permit for each control device.
  1. Such emissions testing shall be conducted in accordance with an Intent-to-Test (ITT) package consisting of an ITT form and a test protocol submitted by the Permittee and approved, in writing, by the Bureau.
  2. The Permittee shall submit the ITT package to the Source Emission Monitoring Unit of the Bureau of Air Management at least 30 days prior to the proposed source test date.
  3. The Permittee shall submit an acceptable test report to the Bureau within 60 days of the completion of emissions testing. The Permittee shall respond to any test report deficiency within 15 days of notification by the Bureau.
  4. In the event that the stack test report is unacceptable, or the tested values show that the source is not in compliance with applicable permit conditions or regulations, this permit may be revoked.
  5. The Permittee shall send submittals made related to the above source test requirements to the Bureau's Source Emission Monitoring Unit. Additionally, the Permittee shall send one copy of each submittal to the Bureau's Compliance Analysis Unit.

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#### PART III. STACK EMISSION TEST REQUIREMENTS, continued

- D. The Bureau may require, as condition of approval of the ITT package, that testing be conducted under specific conditions which may have occurred historically at the facility.
- E. All proposed test methods shall comply with appropriate Federal test methods or methods acceptable to the Bureau. The ITT package must demonstrate compliance with applicable requirements of the Code of Federal Regulations (CFR) Title 40 Parts 51, 60, 61 and 63. Any proposed test methods that deviate from those specified in these regulations must be approved by the Bureau prior to stack testing. All sampling ports shall be installed and located in compliance with 40 CFR Part 60, Appendix A, Method 1. Final plans showing the location of all sampling ports shall be submitted with the ITT package to the Air Bureau's Stack Test Group for approval prior to stack testing.
- F. An inspection of the source may be conducted to verify that appropriate instrumentation is available, and to determine the source process parameters, indicative of compliant operation, to be monitored during stack testing. Once the ITT package is approved, the Permittee shall be notified, in writing, by the Bureau's Source Emission Monitoring Unit.

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

- A. The Permittee shall record the gallons of material transferred through this loading rack on a daily basis. The Permittee shall use the daily records to create logs of monthly throughput. The Permittee shall total the monthly throughputs over every consecutive 12 months and record this value to determine compliance with the throughput limits.
- B. The Permittee shall use a fuel metering device to continuously monitor fuel feed to the Thermal Oxidizing Unit. The Permittee shall record fuel usage on a daily basis.
- C. While operating the Carbon Adsorption/Vapor Recovery System, the Permittee shall continuously monitor and continuously record the concentrations of Volatile Organic Compounds (VOCs) at the outlet of the Carbon Adsorption/Vapor Recovery System.
- D. The Permittee shall continuously monitor and keep records of the combustion temperature of the Thermal Oxidizing Unit whenever the loading rack is vented to the Thermal Oxidizing Unit.
- E. The Permittee is and will be required to review all recorded data daily and report to the commissioner within three working days the details of any exceedance of an emission limit, and any apparent deviations from any conditions of this permit.
- F. The Permittee shall keep records documenting the results of all tests conducted to determine compliance with the VOC control limitation from this permitted unit.

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#### PART IV. MONITORING, REPORTING AND RECORD KEEPING REQUIREMENTS, cont.

- G. All records shall indicate the date and time of occurrence of the recorded event.
- H. The Permittee shall keep all records on premise at all times and shall make them available upon request by the commissioner. Such records shall be maintained for a period of at least five years from the making of such record.

#### PART V. SPECIAL REQUIREMENTS

- A. The Permittee shall operate and maintain all equipment subject to this permit in accordance with the manufacturer's specifications and written recommendations.
- B. The Permittee shall comply with all applicable sections of RCSA section 22a-174-20(b) at all times.
- C. The Permittee shall comply with all applicable sections of the following New Source Performance Standards at all times:
  - 40 CFR Part 60 Subpart A, General Provisions; and
  - 40 CFR Part 60 Subpart XX, Bulk Gasoline Terminals.
- D. The Permittee shall comply with all applicable sections of the following National Emission Standards for Hazardous Air Pollutants for Source Categories at all times:
  - 40 CFR Part 63 Subpart A, General Provisions; and
  - 40 CFR Part 63 Subpart R, Gasoline Distribution Facilities.

#### 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 DEEP 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

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#### PART VI. ADDITIONAL TERMS AND CONDITIONS, continued

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 or municipalities who are not parties to this permit.

- 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 this document and all attachments thereto, and I 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. I understand that any false statement made in the submitted information may be punishable as a criminal offense under Section 22a-175 of the Connecticut General Statutes, under Section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute."
- 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 15 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.
- 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 Director; Engineering & Enforcement Division; Bureau of Air Management; Department of Energy & Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

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