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<i>ENGINEERING AND COMPLIANCE DIVISION</i> <i>Waste Management &amp; Bulk Terminal Permitting</i>	A/N 527656-57	Date 03/09/12
<b>EXXONMOBIL ATWOOD TERMINAL</b> <b>INSTALLATION OF VERICON FITTINGS</b>	Processed by Ed O'Neal	Checked by COT

EVALUATION FOR INSTALLATION OF VERICON  
(OR EQUIVALENT) HOSE CONNECTION  
VERIFICATION SYSTEM: SECTION D  
- PERMIT TO CONSTRUCT/OPERATE-

**COMPANY NAME AND ADDRESS**

ExxonMobil Oil Corporation  
1477 N. Jefferson Street  
Anaheim, CA 92807

Facility ID# 800091

**DESCRIPTION**

APPLICATION NO. 531885

TITLE V FACILITY PERMIT AMENDMENT APPLICATION FOR A/NS 527778 THRU 527782.

APPLICATION NO. 527656

MODIFICATION OF GASOLINE LOADING RACK NO. 1, CONSISTING OF:

1. SIX GASOLINE BOTTOM LOADING RACKS, 4" DIA., WITH A DRY BREAK COUPLER.
2. ONE DIESEL SELF-DISPENSING NOZZLE
3. TWO VAPOR RECOVERY ARMS, 4" DIA., CONNECTED TO A VAPOR RECOVERY UNIT (CARBON ADSORPTION SYSTEM)
4. **TWO GASOLINE TRANSFER PUMPS, CENTRIFUGAL, MECHANICAL SEAL, 60-H.P. MOTOR, COMMON TO LOADING RACK NO. 2**
5. **ONE GASOLINE TRANSFER PUMP, CENTRIFUGAL, MECHANICAL SEAL, 75-H.P. MOTOR, COMMON TO LOADING RACK NO. 2**
6. ONE ETHANOL TRANSFER PUMP, CENTRIFUGAL, MECHANICAL SEAL, 50-H.P. MOTOR, COMMON TO LOADING RACK NO. 2



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**BY THE FOLLOWING:**

1. **ADDITION OF VERICONN (OR EQUIVALENT) HOSE CONNECTION VERIFICATION SYSTEM TO THE TWO 4" VAPOR RECOVERY ARMS.**

APPLICATION NO. 527657

MODIFICATION OF GASOLINE LOADING RACK NO. 2, CONSISTING OF:

1. SIX BOTTOM LOADING RACKS, 4" DIA., WITH A DRY BREAK COUPLER.
2. TWO VAPOR RECOVERY ARMS, 4" DIA., CONNECTED TO A VAPOR RECOVERY UNIT (CARBON ADSORPTION SYSTEM)
3. **TWO GASOLINE TRANSFER PUMPS, CENTRIFUGAL, MECHANICAL SEAL, 60-H.P. MOTOR, COMMON TO LOADING RACK NO. 1**
4. **ONE GASOLINE TRANSFER PUMPS, CENTRIFUGAL, MECHANICAL SEAL, 75-H.P. MOTOR, COMMON TO LOADING RACK NO. 1**
5. ONE ETHANOL TRANSFER PUMP, CENTRIFUGAL, MECHANICAL SEAL, 50-H.P. MOTOR, COMMON TO LOADING RACK NO. 1

**BY THE FOLLOWING:**

1. **ADDITION OF VERICONN (OR EQUIVALENT) HOSE CONNECTION VERIFICATION SYSTEM TO THE TWO 4" VAPOR RECOVERY ARMS.**

**CONDITIONS**

FOR CONDITIONS SEE DRAFT PERMITS.



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## BACKGROUND

This is a Title V facility which is a truck loading terminal and storage tank facility which stores refinery products. The Title V Revision application is 531885.

The above described applications were submitted on September 23, 2011 to modify their bulk loading terminals. The company would like to add Vericonn hose connection verification systems to each loading rack. The loading racks operate under P/Os F74414 and F74415, and are in Section D of the current Title V permit.

ExxonMobil also submitted applications 509932, 509933 and 509934 to make an administrative changes to the loading racks gasoline pump descriptions. These changes are incorporated into the Vericonn applications and the administrative applications shall be canceled.

There have been no NOV's or NC's issued for this facility within the last 2 years.

## PROCESS DESCRIPTION

The process for loading petroleum products into transport delivery equipment requires the use of vapor recovery hoses to collect the hazardous vapors. In the past, transports could be loaded without connecting the facility's vapor recovery hose to the transport. Vapor flow probes or flow switches were installed in vapor recovery piping to detect vapor flow; a time delay had to be used to allow the loading to begin. Loading could continue when vapor flow was detected after the time delay expired. The problem is that the loading process can begin without the vapor recovery hose being connected and loading could be started and would continue until time delay expires. Now that many facilities are using vacuum assist systems for vapor recovery, vapor flow detection systems will sense flow even though the vapor recovery hose is not connected to the transport. This presents a problem due to the fact that the vacuum assist system is pulling air across the flow probes or flow switches and these devices cannot distinguish the difference between air and vapor. The solution to this problem is to detect the actual connection of the vapor recovery hose to the transport before any loading can begin.

The VeriConn System was created for this exact purpose. It is installed in the vapor recovery line to verify the connection of the vapor recovery hose to the transport vehicle before loading is permitted. The loading process WILL NOT be allowed to start before connecting the vapor recovery hose to the transport; no time delay devices are necessary and should not be used with the VeriConn equipment.

This facility is required to have valves on each loading position that are to be open only during the loading process, and a VeriConn system will be used to properly operate such an automatic valve. The VeriConn system will send an "open" command to the valve when the vapor recovery hose is connected to the transport and send a "close" command when the vapor recovery hose is



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disconnected. This will reduce the problem of the valve being inadvertently left open during non-loading times. No other system can properly operate a vapor blocking valve as the VeriConn can. The device is intrinsically safe and includes a static removal and discharging circuit. The body of the device is manufactured from chemical resistant polypropylene and the internal components are corrosion resistant stainless steel which requires no need for cleaning, adjusting or calibrating, making the VeriConn System virtually maintenance free.

The VeriConn System can be mounted in any position and may be used with or without vacuum assist vapor recovery and in conjunction with any overflow system or safety devices installed at the facility.

The VeriConn equipment is NRTL, UL913 and UL61010-1 certified and bears the MET Labs mark.

## **EMISSION CALCULATIONS**

There will be no change in throughput limits on the loading racks, and no change in fugitive emissions from the VCD installation. The line the VCD is in is under vacuum, so there should not be any leakage.

The administrative change is the three gasoline pumps in each rack were listed as three-50 H.P. pumps when they were actually two-60 H.P. pumps and one common 75 H.P. pump. This change will probably result in a negligible emission decrease since there is one less pump in the loading racks than originally planned.

Therefore, expected emissions will be the same as calculated on current permits.

### 1401 Toxic emissions

There will be no change in 1401 toxic emissions.

## **RULES EVALUATION**

Rule 212: Standards for Approving Permits and Issuing Public Notice

The permit unit is not located within 1000 feet of a school, the emissions increase will not exceed the daily maximum specified in subdivision (G) of Rule 212; and the new modified permit unit will not have an increased cancer risk greater than, or equal to, one in a million ( $1 \times 10^{-6}$ ) during a lifetime of 70 years or pose a risk of nuisance. Therefore, public notice is not required by this rule.



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Rule 401: Visible Emissions

The facility has no record of violating this rule. Compliance is expected.

Rule 402: Nuisance

The facility has no record of violating this rule. Compliance is expected.

Rule 462: Organic Liquid Loading

This facility is a Class A facility under Rule 462. As such it is required to have a CARB certified vapor recovery/control system meeting an emissions limit of 0.08 lbs VOC/ 1000 gallons loaded. The vapor recovery system has been certified by the California Air Resources Board (CARB) of capable achieving a minimum control efficiency of 0.08 lbs of volatile organic compounds (VOCs) per 1000 gallons loaded by its loading racks. Based on reviewing information in previous evaluations including previous source tests results, this equipment currently complies with the limits of this rule and should continue to comply with this rule. Future source tests will be required to so that compliance can be determined in the future.

Rule 466: Pumps and Compressors

There is currently no violation for rule 466 and the company intends to continue to comply with this rule, therefore facility compliance expected.

Rule 466.1: Valves and Flanges

There is currently no violation for rule 466.1 and the company intends to continue to comply with this rule, therefore facility compliance expected.

Rule 1173: Fugitive Emissions of Volatile Organic Compounds

Where applicable, this equipment is currently in compliance and should continue to comply with the rule requirements of Rule 1173.



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Regulation XIII - New Source Review

There will be no emission increase from this modification, so this Regulation is not applicable.

Rule 1401: New Source Review of Toxic Air Contaminant

There is not increase of emissions of toxics compounds listed in this rule, so this rule is not applicable.

REGULATION XXX – TITLE V PERMITS

Rule 3000: General

This regulation defines permit application and issuance procedures as well as compliance requirements associated with the program.

This permit is a Minor Revision which is subject to EPA review.

40 CFR 60 Subpart XX

This rule requires emissions of 35 mg/L or less. Compliance expected.

40 CFR 63 Subpart R – Minor Sources

This facility is subject to the minor sources of this rule. The facility maintains records to demonstrate it is a minor source. Compliance expected.



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40 CFR 63, Subpart BBBBBB

National Emission Standards for Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities. This regulation requires that the loading racks meet the applicable testing and monitoring requirements specified in §63.11092, submit applicable notifications as required under §63.11093, and shall keep records and submit reports as specified in §63.11094 and §63.11095. The owner operator shall perform monthly leak inspections of all equipment in gasoline service, as defined §63.11100. This facility is currently operates under the requirements of this rule and should continue to do so.

California Environmental Quality Act (CEQA)

CEQA requires that the environmental impacts of proposed projects be evaluated and that feasible methods to reduce, avoid or eliminate identified significant adverse impacts of these projects be considered. The CEQA Applicability Form (400-CEQA) submitted indicates that the project does not have any impacts which trigger the preparation of a CEQA document. The expected impacts of the project on the environment are not significant; therefore a CEQA analysis is not required.

### **RECOMMENDATION**

Based on the above evaluation, the requested equipment modification changes should be approved and shown in a revision of Section D of their Title V Permit.

Also, the responsible official should be changed in Section A of their Title V permit, as requested in the letter following this report.