



# South Coast Air Quality Management District

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(909) 396-2000 • www.aqmd.gov

August 13, 2009  
*via electronic submittal*

Mr. Gerardo Rios  
U. S. EPA, Region IX  
Mail Stop A-5-2  
75 Hawthorne Street  
San Francisco, California 94105

Dear Mr. Rios:

Proposed Minor Revision to Title V Permit for ExxonMobil Oil Corp. (ID# 800092)

Enclosed for your 45-day review is the proposed revision to the Title V Permit, as described below, for ExxonMobil Oil Corp. located at 799 Seaside Ave., Long Beach, CA. The revision is considered a "minor permit revision", and a public notice is not required.

Application No.	Description
500932	Install a new stormwater collection and treatment system

**We are requesting expedited review for this revision so that the equipment can be constructed prior to the beginning of the rainy season.** This request is being made via electronic submittal in order to facilitate this review. If you have any questions or wish to provide comments regarding this project, please contact the processing engineer, Ms. Linda Dejbakhsh, at (909) 396-2614, or by email at [LDejbakhsh@aqmd.gov](mailto:LDejbakhsh@aqmd.gov).

Very truly yours,

Jay Chen, P.E.  
Senior Engineering Manager  
Refinery and Waste Management Permitting

JC:CDT:LLD  
Enclosures  
(epacoverminorrev1ows500932)

cc: Dok Choe, ExxonMobil (no enclosure)  
TV A/N 496709

**FACILITY PERMIT TO OPERATE  
EXXONMOBIL OIL CORP**

**PERMIT TO CONSTRUCT/OPERATE**

**Permit No. TBD  
A/N 500932**

**Equipment Description:**

**STORMWATER HANDLING SYSTEM CONSISTING OF:**

1. THIRTEEN LIFT STATIONS, EACH WITH TWO 3.8 HP SUMP PUMPS, WITH CATCH BASINS AND ASSOCIATED PIPING TO TRANSPORT STORMWATER TO OIL-WATER SEPARATORS.
2. FLOW METER
3. TWO (2) OIL-WATER SEPARATORS, AFL INDUSTRIES, MODEL VTC 500A, EACH 10'-4" W. BY 10'-6" L. BY 6'-6" H., EACH 500 GPM MAX CAPACITY, LOCATED IN PARALLEL, EACH PASSIVELY VENTED TO TWO CARBON ADSORBERS IN SERIES.
4. FOUR (4) CARBON ADSORBERS, EACH CONTAINING 200 POUNDS OF ACTIVATED CARBON

**CONDITIONS:**

1. CONSTRUCTION AND OPERATION OF THIS EQUIPMENT SHALL BE CONDUCTED IN ACCORDANCE WITH ALL DATA AND SPECIFICATIONS SUBMITTED WITH THE APPLICATION UNDER WHICH THIS PERMIT IS ISSUED UNLESS OTHERWISE NOTED BELOW.  
[RULE 204]
2. THIS EQUIPMENT SHALL BE PROPERLY MAINTAINED AND KEPT IN GOOD OPERATING CONDITION AT ALL TIMES.  
[RULE 204]
3. THE OIL-WATER SEPARATORS SHALL BE COVERED AT ALL TIMES EXCEPT WHEN EMPTIED FOR MAINTENANCE.  
[RULE 204]
4. THIS EQUIPMENT SHALL ONLY BE USED TO COLLECT AND TREAT STORMWATER RUNOFF.  
[RULE 204]
5. THE OPERATOR SHALL INSTALL AND MAINTAIN A FLOW METER TO MEASURE AND RECORD THE FLOW RATE TO THE OIL WATER SEPARATOR SYSTEM.  
[RULE 204]

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6. THROUGHPUT OF THIS SYSTEM SHALL NOT EXCEED 1,440,000 GALLONS PER DAY.  
[RULE 204]

**Periodic Monitoring: NONE**

**Emissions and Requirements: NONE**

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	PROCESSED BY LLD	CHECKED BY TGL/CDT

**OWNER/OPERATOR:**

COID: 800092  
EXXONMOBIL OIL CORPORATION  
12851 E. 166<sup>TH</sup> STREET  
CERRITOS, CA 90703

CONTACT PERSON: DOK CHOE, FIELD ENV. ADVISOR  
[dok.choe@exxonmobil.com](mailto:dok.choe@exxonmobil.com)  
(310) 212-4190

CONSULTANT: TRINITY CONSULTANTS  
ONE TECHNOLOGY, SUITE F-215  
IRVINE, CA 92618

CONTACT: CHARLES LEE, PhD  
(949) 296-4100

**EQUIPMENT LOCATION:**

EXXONMOBIL SOUTHWEST TERMINAL  
799 SEASIDE AVENUE  
TERMINAL ISLAND, CA 90731

**EQUIPMENT DESCRIPTION**

SEE ATTACHED FOR PERMIT

**A/N 500932**  
STORMWATER HANDLING SYSTEM

**A/N 496709 (TV MINOR REVISION)**

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**INTRODUCTION:**

These applications were submitted 2-26-09 as a Class I for construction of a stormwater handling system (consisting of two oil-water separators (OWS)) and a revision to the TV facility permit. The OWSs are passively vented to carbon canisters in series.

There have been no complaints within the last two years.

There is 1 NOV (P52797) issued 5/28/09 for violation of permit condition (operating Tank 80018 (A/N 272416) in violation of condition no. 3 (“This tank shall not be used for storing organic liquids having a vapor pressure of 0.12 psia or greater under actual storage conditions.”))

Facility is currently in compliance.

**PROJECT DESCRIPTION:**

Southwest Terminal Area 1 (SWT-1) generates storm water mixtures as a result of rain events, which are typically “non-contact” with petroleum product. In the past, storm water from rain events was collected in the containment area at SWT-1. This new oil-water system will provide on-site treatment of this storm water.

This new drainage system will handle storm water from the diked containment areas of the terminal only and will be separate from the existing petroleum contact water system that handles marine ballast water, water draw-offs, and other on-site petroleum contact water sources.

The system at SWT-1 consists of 13 interconnected lift stations installed throughout the 7 isolated units of the tank farm. Stormwater travels to the catch basins via over land flow. The lift stations will pump the storm water via aboveground carbon steel piping to the new oil-water system located outside the containment area.

The oil-water system consists of two oil-water separators in parallel. Each oil-water separator will have a capacity of 500 gpm for a total thruput of 1000 gpm. Each oil-water separator is passively vented to 2-200 pound carbons located in series.

The separators will discharge the “cleaned” storm water to the channel.

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**CALCULATIONS:**

To determine the VOC emissions from the OWS, the following equation was used:

**Litchfield Equation**

$$V = -6.6339 + 0.01319 X - 0.0286 Y + 0.2145 Z$$

Where:

- V = percent volume loss after 24 hours
- X = 64 deg, ambient temperature (F)
- Y = 300 deg, 10% true boiling point (F)
- Z = 64 deg, Influent temperature (F)

$$V = 0.56 \% \text{ loss}$$

From stormwater samples taken 12/15/08 from Unit 2B (highest value), the oil/grease concentration was 3.5 mg/L.

$$\begin{aligned} \text{Emission Factor} &= V * \text{concentration}(\text{lb}/1000 \text{ gal}) \\ &= 0.56\% * (3.5 \text{ mg/l})(\text{lb}/454 \text{ g})(\text{g}/1000 \text{ mg})(3.785 \text{ lt/gal}) \\ &= 0.56\% * 29.2\text{E-}3 \text{ lb}/1000 \text{ gal} \\ &= 1.634\text{E-}4 \text{ lb}/1000 \text{ gal} \end{aligned}$$

$$\begin{aligned} \text{OWS capacity} &= 1000 \text{ gpm} \\ &= 1000 \text{ gal}/\text{min} * 60 \text{ min}/\text{hr} * 24 \text{ hr}/\text{day} \\ &= 1,440,000 \text{ gal}/\text{day} \end{aligned}$$

$$\begin{aligned} \text{R1(VOC)} &= 1.634\text{E-}4 \text{ lb}/1000 \text{ gal} * 1,440,000 \text{ gal}/\text{day} \\ &= 0.24 \text{ lb}/\text{day} \\ &*1/24 = 0.01 \text{ lb}/\text{hr} \\ &*91 \text{ days of rain}/\text{year (assume winter or } \frac{1}{4} \text{ year)} = 21.8 \text{ lb}/\text{yr} \end{aligned}$$

Assume 95% control efficiency of carbon adsorbers:

$$\begin{aligned} \text{R2(VOC)} &= 0.24 * (1-0.95) \\ &= 0.012 \text{ lb}/\text{day} \\ &= 0.0005 \text{ lb}/\text{hr} \\ &= 1.09 \text{ lb}/\text{yr} \end{aligned}$$

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**EVALUATION:**

**Rules:**

- 401: No visible emissions are expected.
- 402: No nuisance is expected with proper operational procedures and mitigation measures.
- 464: This equipment is not subject to this rule since the system does not handle wastewater.
- 1176: This equipment is exempt from this rule under 1176(i)(G) since the system handles only stormwater.
- Reg 13: Emissions before control are less than one pound per day. Reg 13 is not triggered.
- 1401: Since the emissions from this equipment are negligible, there is no increase in risk associated with it.

40 CFR 63 Subpart R

40 CFR 63 Subpart Y

40 CFR 63 Subpart BBBB

This equipment will not trigger any new or additional NESHAPs.

TV: This facility permit will be revised and issued as a Minor Revision (under A/N 496709). A 45-day EPA comment period is required prior to issuance of the permit.

**CONCLUSION:**

This project will meet all District Rules and Regulations. It is recommended that a Permit to Construct/Operate be granted subject to the attached conditions by reissuing the Title V Facility Permit under A/N 496709.