

<b>SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT</b>  <b>ENGINEERING AND COMPLIANCE</b>  <b>APPLICATION PROCESSING AND CALCULATIONS</b>	TOTAL PAGES:	PAGE NO.:
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	SKC	<i>jgl</i>

**PERMIT TO CONSTRUCT/OPERATE**

APPLICANT	Equilon Enterprises, LLC, Co. Id. 800372
MAILING ADDRESS	20945 S. Wilmington Ave. Carson, CA 90810
EQUIPMENT LOCATION	2307 Riverside Ave, Bloomington, CA 92316

**Equipment Description:**

ALTERATION TO STORAGE TANK NO. 14, 54' -6" DIA. X 48'-1" H., 20,000 BBL. CAPACITY, GEODESIC DOMED, WELDED SHELL, PONTOON EXTERNAL FLOATING ROOF WITH A SHOE TYPE PRIMARY SEAL AND A SECONDARY SEAL,

BY: THE INSTALLATION OF A GEODESIC DOME.

**Conditions:**

- 1) 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) THIS TANK SHALL NOT BE USED FOR STORING ORGANIC LIQUID HAVING A VAPOR PRESSURE OF 569 MM HG (11 PSIA) OR GREATER UNDER ACTUAL STORAGE CONDITIONS.  
[RULE 463]
- 4) THIS TANK SHALL NOT BE USED FOR STORING PURE ORGANIC COMPOUNDS.  
[RULE 204]
- 5) UPON COMPLETION OF THE INSTALLATION OF THE GEODESIC DOME, THROUGHPUT OF MATERIALS IN THIS TANK SHALL NOT EXCEED 250,000 BARRELS IN ANY ONE CALENDAR MONTH.  
[RULE 1303(b)(2) OFFSETS]
- 6) THE OPERATOR SHALL IN ADDITION TO THOSE RECORDS REQUIRED BY RULE 463, KEEP RECORDS OF MATERIALS STORED, VAPOR PRESSURE, AND THROUGHPUT. SUCH

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RECORDS SHALL BE MAINTAINED FOR A FIVE YEAR PERIOD AND BE MADE AVAILABLE FOR INSPECTION BY DISTRICT PERSONNEL UPON REQUEST.  
[RULE 463; RULE 1303(b)(2) OFFSETS]

- 7) THIS PERMIT TO CONSTRUCT SHALL EXPIRE ON YEAR FROM THE DATE OF ISSUANCE UNLESS AN EXTENSION IS GRANTED BY THE EXECUTIVE OFFICER.  
[RULE 205]

**PERIODIC MONITORING: NONE**

**EMISSIONS AND REQUIREMENTS:**

- 8) THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

VOC: RULE 463  
VOC: RULE 1149

**BACKGROUND & PROCESS DESCRIPTION**

This facility is Title V facility which is primarily a tank storage farm and bulk loading terminal consisting of various size tanks used to store various refinery products and loading racks to deliver the products into tank trucks.

This application is for an external floating roof tank (Tank no. c-14). The tank is currently permitted under permit no. F16316, a/n 344677. This tank is currently limited to storage of organic materials with a TVP < 11.0 psia. This tank currently has an external floating roof with a mechanical shoe primary seal and a rim mounted secondary seal. The applicant proposes to install a domed roof on the tank with the purpose of reducing emissions and preventing rain water accumulation on the external floating roof. No other changes are requested for this tank.

The modification for the Title V permit is under application no. 515268 .

**EMISSION CALCULATIONS**

There are currently no emission limits for this equipment and there is no emissions data for the NSR and AEIS in the previous application. By installing the dome, there will be a net decrease in emissions from this modification. In order to show the decrease in emissions, the current emissions and the post modification emissions will be shown below. These emissions will be based on the operating parameters for this equipment as follows.

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Because there is no currently throughput limit on the storage tank, the pre-modification emissions have been calculated using a two year average pursuant to Rule 1306 (d)(2)(B) and 1306(c)(1). See table "Shell Colton Terminal – Tank 13 and 14 Monthly Throughput Data", included in this file.

Pre-modification data: (from applicant)

21,506,892 gallons/year (12 month rolling average)  
 1,792,241 gallons/month  
 24 hours/day  
 7 days/week  
 52 weeks/year

Post-modification data: (throughput requested by applicant)

126,000,000 gallons/year  
 10,500,000 gallons/month  
 24 hours/day  
 7 days/week  
 52 weeks/year

EPA Tanks 4.0.9 program has been used to calculate the pre-modification and post-modification emissions (see attachments included in this file). A summary of the emissions is shown below.

**Emissions Difference Calculations**

**Tanks Program Results**

Emissions lbs/yr	Rim Loss	Withdrawal Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Pre-modification	2519.71	74.43	1165.91	0	3760.06
Post-modification	496.57	437.05	486.70	0	1420.31
Difference	-2022.14	362.62	-679.21	0	-2339.75

**Daily emissions**

**Tanks Program Results for highest emissions month**

	Monthly	Daily	30 day/ave	Hourly
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	lbs/mo	lbs/day	lbs/day	lbs/hr
<b>Pre-modification</b>	313.34	10.44	10.59	0.44
<b>Post-modification</b>	118.36	3.95	4.00	0.17
<b>Difference</b>	-194.98	-6.49	-6.59	-0.27

\* 30 day ave = daily x 365 days/360 days

There were no pre-modification emissions in NSR and AEIS, therefore the pre-modification emissions have been manually entered into the previous application's NSR and AEIS.

## EVALUATION

**Rule 212** The proposed modifications meet all criteria Rule 212 for approval. The replaced equipment is designed so it can be expected to operate without emitting air contaminants in violation of sections 417, 41701 and 44300 of the State Health and Safety Code or in Violation of AQMD's Rules and Regulations. The project will result in an emissions decrease, therefore it does not exceed the daily maximum specified in subdivision (g) or Rule 212, and the new and modified permit unit does not have an increased cancer risk. There is no school within 1000 ft. of this project.

**Rule 401** **Visible Emissions**  
Visible emissions are not expected under normal operating conditions of the tank.

**Rule 402** **Nuisance**  
No nuisance complaints are expected provided that the operation is conducted according to design. Compliance with 402 is expected.

**Rule 463** **Organic Liquid Storage**  
  
This rule applies to any above ground tank with a capacity of 19,815 gallons or greater for storing organic liquids. Internal Floating roof tanks are subject to the requirement of Rule 463 (d) – Other Performance Requirements. Compliance with Rule 463 is expected with proper record keeping and inspections.

## Regulation IX – NEW SOURCE PERFORMANCE STANDARDS

**Subpart K** **Standards of Performance for Storage Vessels for Petroleum Liquids.**  
Subparts K, Ka, and Kb impose requirements for petroleum liquids storage vessels built after June 11, 1973. This storage tank was constructed prior to this date, there will be no increase in emissions due to this modification, therefore these regulations do not apply.

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**Rule 1149**     **Storage Tank Cleaning and Degassing**  
This Rule has requirements for tank cleaning and degassing operations. Emissions from above ground tanks are required to be controlled by one of the following methods: liquid balance, negative pressure displacement and subsequent incinerations, vapor condensation with a refrigeration system, or any other method which controls VOC by at least 90%. A permit condition requires continued compliance with this rule.

**Rule 1173**     **Fugitive Emissions of Volatile Organic Compounds**  
This Rule specifies leak control, identification, operator inspection, maintenance, and recordkeeping requirements for valves pumps, compressors, pressure relief valves, and other components from which fugitive VOC emissions may emanate. Since this project does not involve a change to any component outside of the storage tanks, no change in fugitive VOC emissions is expected.

**Rule 1178**     **Further reductions of VOC from Storage Tanks at Petroleum Refineries**  
This Rule applies to facilities with VOC emissions that exceed 20 tons per year. After reviewing the AER emissions, there was no year that exceeded 20 tons per year, therefore this rule does not apply.

**Rule 1303: Requirements**

**Rule 1303(a) – Best Available Control Technology**  
Since this project results in a reduction in VOC emissions and TAC emissions, therefore, BACT requirements do not apply.

**Rule 1303(b)(1) - Modeling**  
Modeling is not required for VOC emissions.

**Rule 1303 (b)(2) – Emissions Offsets**  
Since this project results in a reduction in VOC emissions and TAC emissions, therefore, offsets are not required.

**Rule 1303 (b)(4) – Facility Compliance**  
The subject facility complies with all applicable rules and regulations of the District.

**Rule 1313 (g) – Emissions Limitation Permit Conditions**

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Throughput limits will be imposed to ensure there a no emission increases, thus establishing offset baseline.

**Rule 1401 New Source Review of Carcinogenic Air Contaminants**

This rules requires permit applicants to assess the cancer risks due to the cumulative emission impacts of new/modified sources in their facility. Since the project results in a reduction in VOC emissions and TAC emissions, therefore, the project is exempt from Rule 1401 assessment.

**Regulation XVII – REGIONAL CLEAN AIR INCENTIVES MARKET (RECLAIM)**

This facility is not a RECLAIM facility. Therefore, it is not subject to Reg. XX.

**Reg XXX: Title V Permits**

The Title V permit has been issued for this facility, and the necessary sections will be amended with the necessary revisions under application no. 515268.

**CEQA – California Environment Quality Act.**

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) 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 environmental are not significant. Therefore a CEQA analysis is not required.

**RECOMMENDATIONS**

Based the information submitted and the above evaluation, it is recommended that this equipment should be issued a conditional Permit to Construct/Operate.

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## PERMIT TO CONSTRUCT/OPERATE

APPLICANT	Equilon Enterprises, LLC, Co. Id. 800372
MAILING ADDRESS	20945 S. Wilmington Ave. Carson, CA 90810
EQUIPMENT LOCATION	2307 Riverside Ave, Bloomington, CA 92316

### Equipment Description:

STORAGE TANK NO. 13, 54'-6" DIA.X 48' -1" H., 20,000 BBL. CAPACITY, GEODESIC DOMED, WELDED SHELL, PONTOON EXTERNAL FLOATING ROOF WITH A SHOE TYPE PRIMARY SEAL AND A SECONDARY SEAL

### Conditions:

- 1) 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) THIS TANK SHALL NOT BE USED FOR STORING ORGANIC LIQUID HAVING A VAPOR PRESSURE OF 569 MM HG (11 PSIA) OR GREATER UNDER ACTUAL STORAGE CONDITIONS.  
[RULE 463]
- 4) THIS TANK SHALL NOT BE USED FOR STORING PURE ORGANIC COMPOUNDS.  
[RULE 204]
- 5) UPON COMPLETION OF THE INSTALLATION OF THE GEODESIC DOME, THROUGHPUT OF MATERIALS IN THIS TANK SHALL NOT EXCEED 250,000 BARRELS IN ANY ONE CALENDAR MONTH.  
[RULE 1303(b)(2) OFFSETS]
- 6) THE OPERATOR SHALL IN ADDITION TO THOSE RECORDS REQUIRED BY RULE 463, KEEP RECORDS OF MATERIALS STORED, VAPOR PRESSURE, AND THROUGHPUT. SUCH RECORDS SHALL BE MAINTAINED FOR A FIVE YEAR PERIOD AND BE MADE AVAILABLE FOR INSPECTION BY DISTRICT PERSONNEL UPON REQUEST.  
[RULE 463; RULE 1303(b)(2) OFFSETS]

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- 7) THIS PERMIT TO CONSTRUCT SHALL EXPIRE ON YEAR FROM THE DATE OF ISSUANCE UNLESS AN EXTENSION IS GRANTED BY THE EXECUTIVE OFFICER.  
[RULE 205]

**PERIODIC MONITORING: NONE**

**EMISSIONS AND REQUIREMENTS:**

- 8) THIS EQUIPMENT IS SUBJECT TO THE APPLICABLE REQUIREMENTS OF THE FOLLOWING RULES AND REGULATIONS:

VOC: RULE 463  
VOC: RULE 1149

**BACKGROUND & PROCESS DESCRIPTION**

This facility is Title V facility which is primarily a tank storage farm and bulk loading terminal consisting of various size tanks used to store various refinery products and loading racks to deliver the products into tank trucks.

This application is for an external floating roof tank (Tank no. 13). The tank is currently permitted under permit no. F16225, a/n 344672. This tank is currently limited to storage of organic materials with a TVP < 11.0 psia. This tank currently has an external floating roof with a mechanical shoe primary seal and a rim mounted secondary seal. The applicant proposes to install a domed roof on the tank with the purpose of reducing emissions and preventing rain water accumulation on the external floating roof. No other changes are requested for this tank.

The modification for the Title V permit is under application no. 509122 .

**EMISSION CALCULATIONS**

There are currently no emission limits for this equipment and there is no emissions data for the NSR and AEIS in the previous application. By installing the dome, there will be a net decrease in emissions from this modification. In order to show the decrease in emissions, the current emissions and the post modification emissions will be shown below. These emissions will be based on the operating parameters for this equipment as follows.

Because there is no currently throughput limit on the storage tank, the pre-modification emissions have been calculated using a two year average pursuant to Rule 1306(d)(2)(B) and 1306(c)(1). See table "Shell Colton Terminal – Tank 13 and 14 Monthly Throughput Data", included in this file.

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Pre-modification data: (from applicant)

22,356,742 gallons/year (12 month rolling average)  
 1,863,061 gallons/month  
 24 hours/day  
 7 days/week  
 52 weeks/year

Post-modification data: (throughput requested by applicant)

126,000,000 gallons/year  
 10,500,000 gallons/month  
 24 hours/day  
 7 days/week  
 52 weeks/year

EPA Tanks 4.0.9 program has been used to calculate the pre-modification and post-modification emissions (see attachments included in this file). A summary of the emissions is shown below.

**Emissions Difference Calculations**

**Tanks Program Results**

Emissions lbs/yr	Rim Loss	Withdrawal Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Pre-modification	2519.71	77.36	1165.91	0	3762.99
Post-modification	496.57	437.05	486.70	0	1420.31
Difference	-2022.14	362.62	-679.21	0	-2339.75

**Daily emissions**

**Tanks Program Results for highest emissions month**

	Monthly	Daily	30 day/ave	Hourly
	lbs/mo	lbs/day	lbs/day	lbs/hr

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Pre-modification	313.58	10.45	10.59	0.44
Post-modification	118.36	3.95	4.00	0.17
Difference	-195.22	-6.50	-6.59	-0.27

\* 30 day ave = daily x 365 days/360 days

There were no pre-modification emissions in NSR and AEIS, therefore the pre-modification emissions have been manually entered into the previous application's NSR and AEIS.

## EVALUATION

**Rule 212** The proposed modifications meet all criteria Rule 212 for approval. The replaced equipment is designed so it can be expected to operate without emitting air contaminants in violation of sections 417, 41701 and 44300 of the State Health and Safety Code or in Violation of AQMD's Rules and Regulations. The project will result in an emissions decrease, therefore it does not exceed the daily maximum specified in subdivision (g) or Rule 212, and the new and modified permit unit does not have an increased cancer risk cancer risk. There is no school within 1000 ft. of this project.

**Rule 401** **Visible Emissions**  
Visible emissions are not expected under normal operating conditions of the tank.

**Rule 402** **Nuisance**  
No nuisance complaints are expected provided that the operation is conducted according to design. Compliance with 402 is expected.

**Rule 463** **Organic Liquid Storage**

This rule applies to any above ground tank with a capacity of 19,815 gallons or greater for storing organic liquids. Internal Floating roof tanks are subject to the requirement of Rule 463 (d) – Other Performance Requirements. Compliance with Rule 463 is expected with proper record keeping and inspections.

## Regulation IX – NEW SOURCE PERFORMANCE STANDARDS

**Subpart K Standards of Performance for Storage Vessels for Petroleum Liquids.**

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Subparts K, Ka, and Kb impose requirements for petroleum liquids storage vessels built after June 11, 1973. This storage tank was constructed prior to this date, there will be no increase in emissions due to this modification, therefore these regulations do not apply.

**Rule 1149**      **Storage Tank Cleaning and Degassing**

This Rule has requirements for tank cleaning and degassing operations. Emissions from above ground tanks are required to be controlled by one of the following methods: liquid balance, negative pressure displacement and subsequent incinerations, vapor condensation with a refrigeration system, or any other method which controls VOC by at least 90%. A permit condition requires continued compliance with this rule.

**Rule 1173**      **Fugitive Emissions of Volatile Organic Compounds**

This Rule specifies leak control, identification, operator inspection, maintenance, and recordkeeping requirements for valves pumps, compressors, pressure relief valves, and other components from which fugitive VOC emissions may emanate. Since this project does not involve a change to any component outside of the storage tanks, no change in fugitive VOC emissions is expected.

**Rule 1178**      **Further reductions of VOC from Storage Tanks at Petroleum Refineries**

This Rule applies to facilities with VOC emissions that exceed 20 tons per year. After reviewing the AER emissions, there was no year that exceeded 20 tons per year, therefore this rule does not apply.

**Rule 1303: Requirements**

**Rule 1303(a) – Best Available Control Technology**

Since this project results in a reduction in VOC emissions and TAC emissions, therefore, BACT requirements do not apply.

**Rule 1303(b)(1) - Modeling**

Modeling is not required for VOC emissions.

**Rule 1303 (b)(2) – Emissions Offsets**

Since this project results in a reduction in VOC emissions and TAC emissions, therefore, offsets are not required.

**Rule 1303 (b)(4) – Facility Compliance**

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The subject facility complies with all applicable rules and regulations of the District.

**Rule 1313 (g) – Emissions Limitation Permit Conditions**

Throughput limits will be imposed to ensure there a no emission increases, thus establishing offset baseline.

**Rule 1401 New Source Review of Carcinogenic Air Contaminants**

This rules requires permit applicants to assess the cancer risks due to the cumulative emission impacts of new/modified sources in their facility. Since the project results in a reduction in VOC emissions and TAC emissions, therefore, the project is exempt from Rule 1401 assessment.

**Regulation XVII – REGIONAL CLEAN AIR INCENTIVES MARKET (RECLAIM)**

This facility is not a RECLAIM facility. Therefore, it is not subject to Reg. XX.

**Reg XXX: Title V Permits**

The Title V permit has been issued for this facility, and the necessary sections will be amended with the necessary revisions under application no. 509122.

**CEQA – California Environment Quality Act.**

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) 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 environmental are not significant. Therefore a CEQA analysis is not required.

**RECOMMENDATIONS**

Based the information submitted and the above evaluation, it is recommended that this equipment should be issued a conditional Permit to Construct/Operate.