

ORIGINAL

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10/16/24

SOUTH COAST AQMD
CLERK OF THE BOARDS

2024 AUG 23 PM 4: 16

PETITION FOR VARIANCE
BEFORE THE HEARING BOARD OF THE
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

PETITIONER: EQUILON ENTERPRISES, LLC SHELL OIL PROD. US CASE NO: 4982-136

FACILITY ID: 116931

FACILITY ADDRESS: 2457 Redondo Ave
[location of equipment/site of violation; specify business/corporate address, if different, under Item 2, below]

City, State, Zip: Signal Hill, CA, 90806

1. TYPE OF VARIANCE REQUESTED (more than one box may be checked; see Attachment A, Item 1, before selecting)

INTERIM SHORT REGULAR EMERGENCY EX PARTE EMERGENCY

2. CONTACT: Name, title, company (if different than Petitioner), address, and phone number of persons authorized to receive notices regarding this Petition (no more than two authorized persons).

~~Brian J. Faulkner~~, Legal Counsel - Environmental

Christopher Sherman, Environmental Advisor

Shell Oil Company
E0344
150 N. Dairy Ashford

Equilon Enterprises LLC dba Shell Oil Products US
20945 S Wilmington St.

Houston, TX Zip 77079

Carson, CA Zip 90744

337-1787
(832) 762-2951 Ext.

(310) 816-6025 Ext.

Fax ()

Fax ()

roberta.lewis
E-mail brian.faulkner@shell.com

E-mail christopher.sherman@shell.com

3. RECLAIM Permit Yes No Title V Permit Yes No

4. GOOD CAUSE: Explain why your petition was not filed in sufficient time to issue the required public notice. (Required only for Emergency and Interim Variances; see Attachment A, Item 4)

N/A

5. Briefly describe the type of business and processes at your facility.

Shell Signal Hill is a terminal that receives, ships, stores and distributes various refined petroleum products. Products are primarily received by pipeline and placed in storage tanks for further distribution. Also, various fuel components are offloaded by trucks.

A vapor holder (bladder tank) (G15481, A/N 505270) is used to regulate flow of VOC emissions during the loading of petroleum products into tanker trucks. Once loading starts, all tanker truck vapors that are displaced as a compartment is filled with gasoline go through the vapor collection system and into the bladder tank. When the bladder reaches a certain height/volume, a blower starts which routes the vapors to the carbon adsorption vapor recovery unit (VRU). The VRU has two carbon canisters in parallel – the vapors go through one canister where VOCs are adsorbed, while the second canister is being regenerated with a vacuum process that pulls the vapors from the carbon and condenses them and returns the liquid to storage. The VRU switches between canisters every 15 minutes, so one canister is adsorbing vapors while the other is being regenerated. This process continues until the bladder is empty and starts again when the bladder is full.

6. List the equipment and/or activity(s) that are the subject of this petition (see Attachment A, Item 6, Example #1). **Attach copies of the Permit(s) to Construct and/or Permit(s) to Operate for the subject equipment. For RECLAIM or Title V facilities, attach *only* the relevant sections of the Facility Permit showing the equipment or process and conditions that are subject to this petition. You must bring the entire Facility Permit to the hearing.**

Equipment/Activity	Application/ Permit No.	RECLAIM Device No.	Date Application/Plan Denied (if relevant)*
Vapor Recovery System	Permit No. G15481 A/N 505270	N/A	N/A
Bulk Fuel Loading Rack No. 1	Permit No. G25256 A/N 393504	N/A	N/A
Bulk Fuel Loading Rack No. 2	Permit No. G25265 A/N 393505	N/A	N/A
Bulk Fuel Loading Rack No. 3	Permit No. G25268 A/N 393506	N/A	N/A

*Attach copy of denial letter

7. Briefly describe the activity or equipment, and why it is necessary to the operation of your business. A schematic or diagram may be attached, in addition to the descriptive text.

A vapor holder (bladder tank) is used to regulate flow of VOC emissions during the loading of petroleum products into tanker trucks. Once loading starts, all tanker truck vapors that are displaced as a compartment is filled with gasoline go through the vapor collection system and into the bladder tank. When the bladder reaches a certain height/volume, a blower starts which routes the vapors to the carbon adsorption vapor recovery unit (VRU). The VRU can also operate in direct mode where vapors bypass the bladder and vent directly to the carbon canisters. The VRU CARB certification restricts loading to only one load arm at a time when operating in direct mode, and with a daily throughput limit that is less than one quarter of the normal daily throughput limit. Operating at this reduced rate for more than a few hours will result in extremely long wait times for trucks loading at the terminal and will cause trucks to load at alternate terminals.

8. Is there a regular maintenance and/or inspection schedule for this equipment? Yes No

If yes, how often: Daily; Once/Month; Quarterly _____

Date of last maintenance and/or inspection API653 and bladder replacement was on 2/25/2009

Describe the maintenance and/or inspection that was performed.

The bladder is inspected and maintained per industry and Shell requirements. A sight, sound, and smell inspection is completed daily by facility operators. The bladder is inspected monthly via pressure trending by the facility operators. Quarterly TVA inspections (VOC leak inspections with a portable instrument) by an outside contractor are completed. Replacement of the bladder is a scheduled maintenance requirement.

9. List all District rules, and/or permit conditions [indicating the specific section(s) and subsection(s)] from which you are seeking variance relief (if requesting variance from Rule 401 or permit condition, see Attachment A). Briefly explain how you are or will be in violation of each rule or condition (see Attachment A, Item 9, Example #2).

Rule	Explanation
203(b)	Rule states "The equipment or agricultural permit unit shall not be operated contrary to the conditions specified in the permit to operate." Condition 1 of Permit No. G15481 and Conditions 1 and 3 of Permit Nos. G25256, G25265, and G25268 do not allow for a portable bladder to be used in place of the fixed bladder tank.
3002(a)	This rule states that an operator may not modify equipment at a Title V facility without the prior approval of the District.
3002(c)(1)	Rule states "A person shall construct and operate a Title V facility and all equipment located at a Title V facility in compliance with all terms, requirements, and conditions specified in the Title V permit at all times." Condition 1 of Permit No. G15481 and Conditions 1 and 3 of Permit Nos. G25256, G25265, and G25268 do not allow for a portable bladder to be used in place of the fixed bladder tank.
A/N 505270 (Permit No. G15481) Condition 1	Condition requires operation "in accordance with all data and specifications submitted with the application under which this permit is issued". Portable bladder was not part of application.
A/N 393504 (Permit No. G25256) Conditions 1, 3	Condition 1 requires operation "in accordance with all data and specifications submitted with the application under which this permit is issued". Portable bladder was not part of application. Condition 5 requires load rack to vent to control equipment that has been issued a PTO. The control device PTO does not allow for use of a portable bladder.
A/N 393505 (Permit No. G25265) Conditions 1, 3	Condition 1 requires operation "in accordance with all data and specifications submitted with the application under which this permit is issued". Portable bladder was not part of application. Condition 5 requires load rack to vent to control equipment that has been issued a PTO. The control device PTO does not allow for use of a portable bladder.
A/N 393505 (Permit No. G25268) Conditions 1, 3	Condition 1 requires operation "in accordance with all data and specifications submitted with the application under which this permit is issued". Portable bladder was not part of application. Condition 5 requires load rack to vent to control equipment that has been issued a PTO. The control device PTO does not allow for use of a portable bladder.

10. Are the equipment or activities subject to this request currently under variance coverage? Yes No

Case No.	Date of Action	Final Compliance Date	Explanation

11. Are any other equipment or activities at this location currently (or within the last six months) under variance coverage? Yes No

Case No.	Date of Action	Final Compliance Date	Explanation

12. Were you issued any Notice(s) of Violation or Notice(s) to Comply concerning this equipment or activity within the past year? Yes No

If yes, you must attach a copy of each notice.

13. Have you received any complaints from the public regarding the operation of the subject equipment or activity within the last six months? Yes No

If yes, you should be prepared to present details at the hearing.

14. Explain why it is beyond your reasonable control to comply with the rule(s) and/or permit condition(s). Provide specific event(s) and date(s) of occurrence(s), if applicable.

The bladder in the bladder tank is nearing end-of-life. Approximately 13 months ago, Shell has submitted an application to modify the Title V permit to bring in a portable bladder unit to use while the bladder in the bladder tank is being replaced. The Title V application review process is taking a very long time and it is unknown when the permit to construct will be issued. A similar application was submitted for the Shell Van Nuys facility in February 2022 and that permit has yet to be issued. The VRU can also operate in direct mode where vapors bypass the bladder and vent directly to the carbon canisters. The VRU CARB certification restricts loading to only one load arm at a time when operating in direct mode – in normal load, the terminal could load up to 9 arms simultaneously. The CARB certification also includes a daily throughput limit that is less than one quarter of the normal daily throughput limit. Operating at this reduced rate for more than a few hours will result in extremely long wait times for trucks loading at the terminal and will cause trucks to load at alternate terminals.

Another option under Shell's Title V Permit allows the use of a portable thermal oxidizer to control truck rack emissions during the bladder tank maintenance. This option would allow Shell to maintain current throughput, but would create incremental greenhouse gases and combustion pollutants such as NOx and particulate matter. Shell would prefer the use of a portable bladder as this would not create combustion emissions and greenhouse gases and have no incremental emissions over current operations.

15. When and how did you first become aware that you would not be in compliance with the rule(s) and/or permit condition(s)? Provide specific event(s) and date(s) of occurrence(s).

A permit application to use a portable bladder tank in place of the fixed bladder tank was submitted on 7/17/2023. It was expected that a permit to construct would be issued within a year but discussions with District permitting staff indicate it will likely be much longer before a permit will be issued. Notably, a similar application was submitted for the Shell Van Nuys facility in February 2022 and that permit has yet to be issued. The bladder is nearing end-of-life and Shell wishes to replace the bladder soon so not to impact gasoline retail market and not create any incremental emissions. The date of receiving the permit to use the portable bladder is unknown, and Shell has decided to apply for a variance. The Shell Van Nuys facility filed for a variance in 2023 for this same situation (Case No. 4982-134) and the variance was approved by the Hearing Board. Shell successfully completed the bladder replacement project while complying with all variance conditions.

16. List date(s) and action(s) you have taken since that time to achieve compliance.

The permit application was submitted on July 17, 2023. There have been inquiries to the agency regarding the status of the Title V application, and it is not known when the PTC will be issued.

17. What would be the harm to your business during and/or after the period of the variance if the variance were not granted?

Economic losses: \$ 457,380 to 653,400

Number of employees laid off (if any): N/A

Provide detailed information regarding economic losses, if any, (anticipated business closure, breach of contracts, hardship on customers, layoffs, and/or similar impacts).

Replacement of the bladder will take approximately 6-8 weeks. The incremental cost of a portable thermal oxidizer in place of the portable bladder is approximately \$457,380-653,400 for a 6-8 week period. More importantly, the portable thermal oxidizer would create incremental greenhouse gases and combustion pollutants while the portable bladder unit has no incremental impacts over the current operation.

18. Can you curtail or terminate operations in lieu of, or in addition to, obtaining a variance? Please explain.

The title V permit allows the VRU to operate without the bladder tank (bypass mode) at a very reduced throughput rate (less than one quarter of the normal daily throughput limit and only one load arm at a time). Operating at this reduced rate for more than a few hours will result in extremely long wait times at the load rack, causing trucks to pick up fuel at other terminals.

19. Estimate excess emissions, if any, on a daily basis, including, if applicable, excess opacity (the percentage of total opacity above 20% during the variance period). If the variance will result in no excess emissions, insert "N/A" here and skip to No. 20.

Pollutant	(A)	(B)	(C)*
	Total Estimated Excess Emissions (lbs/day)	Reduction Due to Mitigation (lbs/day)	Net Emissions After Mitigation (lbs/day)
	N/A	N/A	N/A

* Column A minus Column B = Column C

Excess Opacity: _____ %

20. Show calculations used to estimate quantities in No. 19, or explain why there will be no excess emissions.

There will be no excess emissions during the period of the variance because the portable vapor bladder will operate as it's permitted counterpart and all other equipment at the facility will continue to operate normally and in compliance with all applicable rules and permit conditions.

21. Explain how you plan to reduce (mitigate) excess emissions during the variance period to the maximum extent feasible, or why reductions are not feasible.

N/A. There will be no excess emissions.

22. How do you plan to monitor or quantify emission levels from the equipment or activity(s) during the variance period, and to make such records available to the District? **Any proposed monitoring does not relieve RECLAIM facilities from applicable missing data requirements.**

Emissions will be monitored in the same way as under current operations – a continuous emission monitoring system measures VOC concentration in the VRU exhaust.

23. How do you intend to achieve compliance with the rule(s) and/or permit condition(s)? Include a detailed description of any equipment to be installed, modifications or process changes to be made, permit conditions to be amended, etc., dates by which the actions will be completed, and an estimate of total costs.

Operations will essentially be normal, with the only difference being the use of a portable bladder tank in place of the fixed bladder tank.

[Empty rectangular box]

24. State the date you are requesting the variance to begin: 10/21/2024; and the date by which you expect to achieve final compliance: 1/19/2025

If the regular variance is to extend beyond one year, you **must** include a **Schedule of Increments of Progress**, specifying dates or time increments for steps needed to achieve compliance. See District Rule 102 for definition of Increments of Progress (see Attachment A, Item 24, Example #3).

List Increments of Progress here:
[Empty rectangular box]

25. List the names of any District personnel with whom facility representatives have had contact concerning this variance petition or any related Notice of Violation or Notice to Comply.

Khang Nguyen (909) 396-3210 Ext. _____
_____ Ext. _____

If the petition was completed by someone other than the petitioner, please provide their name and title below.

Name Company Title

The undersigned, under penalty of perjury, states that the above petition, including attachments and the items therein set forth, is true and correct.

Executed on 8/19/2024, at Carson, California

Christopher Sherman Signature Christopher Sherman Print Name

Title: Environmental Advisor



**FACILITY PERMIT TO OPERATE
EQUILON ENTERPRISES LLC, SIGNAL HILL TERMINAL**

PERMIT TO OPERATE

**Permit No. G25256
A/N 393504**

Equipment Description:

BULK FUEL LOADING RACK NO. 1, CONSISTING OF:

1. SIX BOTTOM LOADING ASSEMBLIES WITH 4" BOTTOM LOADING COUPLERS.
2. SIX PRODUCT METERS.
3. TWO VAPOR RECOVERY ARMS, 4" DIAMETER, CONNECTED TO VAPOR RECOVERY UNIT.
4. SIX LOADING PUMPS, MECHANICAL SEALS, 60-HP EACH, COMMON TO BULK LOADING RACKS NOS. 1, 2, AND 3.
5. TWO ADDITIVE INJECTION PUMPS (WITH ONE SPARE), ROTARY TYPE OR EQUIVALENT, WITH MAGNETIC DRIVE PUMPS, 2-HP EACH, COMMON TO BULK LOADING RACKS NOS. 1, 2, AND 3.
6. ONE ETHANOL METERING SKID CONSISTING OF FOUR 1.5" TURBINE METER, FOUR 2" CONTROL VALVES AND STRAINERS.
7. TWO ETHANOL LOADING PUMPS, CENTRIFUGAL, 30 HP, EACH WITH DOUBLE MECHANICAL SEALS, COMMON TO LOADING RACKS 1, 2, AND 3.

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 equipment shall not be operated unless it is vented to air pollution control equipment which is in full use and which has been issued a Permit to Operate.
[RULE 1303(a)(1)-BACT, RULE 462]
4. The operator shall limit the loading rate of total volume of products to no more than 1,800,000 gallons per day in direct mode and 526,037 gallons per day in bypass mode. Bypass mode is defined as the operation of the carbon adsorber where the vapor flow "bypasses" the vapor holder. The limit(s) shall apply to the total combined loading rate for all three Loading Racks Nos. 1, 2, and 3.
[RULE 462]



**FACILITY PERMIT TO OPERATE
EQUILON ENTERPRISES LLC, SIGNAL HILL TERMINAL**

5. Materials loaded shall consist of petroleum products having a true vapor pressure not to exceed 11 psia including but not limited to gasoline, gasoline additives, oxygenates (including denatured ethanol), diesel and other distillate fuels (including biodiesel and synthetic fuels).
[RULE 463]
6. The operator shall limit the loading rate to no more than 2,118,404 gallons per day. The limit shall apply to the total combined loading rate for all three Loading Racks Nos. 1, 2, and 3.
[RULE 1303(b)(2) – OFFSET, RULE 1313(g) –EMISSION LIMITATION]
7. The continuous hydrocarbon monitoring system shall be in full use at all times and shall alert the operator both audible and visually to prevent hydrocarbon breakthrough. The alarm shall be set to activate at a hydrocarbon emission rate of 0.065 pound hydrocarbon per 1,000 gallons.
[RULE 1303(a)(1) – BACT, RULE 1303(b)(2) – OFFSET]
8. In addition to the records required in Rule 462, the loading throughput record shall be maintained for five years in a format approved by the South Coast AQMD and shall be made available to South Coast AQMD personnel upon request.
[RULE 1303(b)(2) – OFFSET]
9. The following BACT requirements shall apply to new VOC service fugitive components associated with the devices that are covered by this Permit to Construct. All valves shall be bellow-seal valves, except in the following applications: valves in heavy liquid service, control valves, instrument piping/tubing vales, valves requiring torsional stem motion, situations where valve failure could pose safety hazard (e.g. drain valves with valve stems in horizontal position), retrofits/special application valves with space limitation, and valves not commercially available. The South Coast AQMD shall approve all exceptions to this requirement. All valves and new major components shall be physically identified in the field with special markings that distinguish the components from non-BACT components. Additionally, all new components shall be identified as BACT components in the record.

All fugitive components in VOC service, except those specifically exempted in Rule 1173, shall be inspected monthly using EPA Reference Method 21.

All components in VOC service, with leak greater than 500 ppm but less than 1000 ppm measured as methane above background using EPA Reference Method 21 shall be repaired within 14 days of detection. A leak of 1,000 ppm or greater shall be repaired according to Rule 1173.

Records of monthly inspection, subsequent repairs and reinspections, if any, shall be maintained for five years in a format approved by the South Coast AQMD, and shall be made available to South Coast AQMD personnel upon request.

[RULE 1303(a)(1)-BACT, 1303(b)(2)-OFFSETS, 1313(g)-EMISSION LIMITATION]

Periodic Monitoring:

10. The operator shall conduct source test(s) in accordance with the following specifications:

The test shall be conducted at least once every 60 calendar months.

The test shall be conducted to determine the bulk loading rate in gallons per hour during the source test.

The test shall be conducted to determine the VOC emission rate in pounds per 1,000 gallons loaded.

[RULE 1303(a)(1)-BACT, RULE 3004(a)(4) – PERIODIC MONITORING]



**FACILITY PERMIT TO OPERATE
EQUILON ENTERPRISES LLC, SIGNAL HILL TERMINAL**

Emissions and Requirements:

11. This equipment is subject to the applicable requirements of the following rules and regulations:

VOC: 0.08 Lb/1000 Gal. Organic Liquid, Rule 462
VOC: 0.065 Lb/1000 Gal. Organic Liquid, Rule 1303(a)(1) – BACT, Rule 1313(g) Emission
Limitation
VOC/TOC: 35 mg/L Gasoline Loaded, 40 CFR 60 Subpart XX



**FACILITY PERMIT TO OPERATE
EQUILON ENTERPRISES LLC, SIGNAL HILL TERMINAL**

PERMIT TO OPERATE

**Permit No. G25265
A/N 393505**

Equipment Description:

BULK FUEL LOADING RACK NO. 2, CONSISTING OF:

1. SIX BOTTOM LOADING ASSEMBLIES WITH 4" BOTTOM LOADING COUPLERS.
2. SIX PRODUCT METERS.
3. TWO VAPOR RECOVERY ARMS, 4" DIAMETER, CONNECTED TO VAPOR RECOVERY UNIT.
4. SIX LOADING PUMPS, MECHANICAL SEALS, 60-HP EACH, COMMON TO BULK LOADING RACKS NOS. 1, 2, AND 3.
5. TWO ADDITIVE INJECTION PUMPS (WITH ONE SPARE), ROTARY TYPE OR EQUIVALENT, WITH MAGNETIC DRIVE PUMPS, 2-HP EACH, COMMON TO BULK LOADING RACKS NOS. 1, 2, AND 3.
6. ONE ETHANOL METERING SKID CONSISTING OF FOUR 1.5" TURBINE METER, FOUR 2" CONTROL VALVES AND STRAINERS.
7. TWO ETHANOL LOADING PUMPS, CENTRIFUGAL, 30 HP, EACH WITH DOUBLE MECHANICAL SEALS, COMMON TO LOADING RACKS 1,2, AND 3.

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 equipment shall not be operated unless it is vented to air pollution control equipment which is in full use and which has been issued a Permit to Operate.
[RULE 1303(a)(1)-BACT, RULE 462]
4. The operator shall limit the loading rate of total volume of products to no more than 1,800,000 gallons per day in direct mode and 526,037 gallons per day in bypass mode. Bypass mode is defined as the operation of the carbon adsorber where the vapor flow "bypasses" the vapor holder. The limit(s) shall apply to the total combined loading rate for all three Loading Racks Nos. 1, 2, and 3.
[RULE 462]



**FACILITY PERMIT TO OPERATE
EQUILON ENTERPRISES LLC, SIGNAL HILL TERMINAL**

5. Materials loaded shall consist of petroleum products having a true vapor pressure not to exceed 11 psia including but not limited to gasoline, gasoline additives, oxygenates (including denatured ethanol), diesel and other distillate fuels (including biodiesel and synthetic fuels).
[RULE 463]
6. The operator shall limit the loading rate to no more than 2,118,404 gallons per day. The limit shall apply to the total combined loading rate for all three Loading Racks Nos. 1, 2, and 3.
[RULE 1303(b)(2) – OFFSET, RULE 1313(g) –EMISSION LIMITATION]
7. The continuous hydrocarbon monitoring system shall be in full use at all times and shall alert the operator both audible and visually to prevent hydrocarbon breakthrough. The alarm shall be set to activate at a hydrocarbon emission rate of 0.065 pound hydrocarbon per 1,000 gallons.
[RULE 1303(a)(1) – BACT, RULE 1303(b)(2) – OFFSET]
8. In addition to the records required in Rule 462, the loading throughput record shall be maintained for five years in a format approved by the South Coast AQMD and shall be made available to South Coast AQMD personnel upon request.
[RULE 1303(b)(2) – OFFSET]
9. The following BACT requirements shall apply to new VOC service fugitive components associated with the devices that are covered by this Permit to Construct. All valves shall be bellow-seal valves, except in the following applications: valves in heavy liquid service, control valves, instrument piping/tubing valves, valves requiring torsional stem motion, situations where valve failure could pose safety hazard (e.g. drain valves with valve stems in horizontal position), retrofits/special application valves with space limitation, and valves not commercially available. The South Coast AQMD shall approve all exceptions to this requirement. All valves and new major components shall be physically identified in the field with special markings that distinguish the components from non-BACT components. Additionally, all new components shall be identified as BACT components in the record.

All fugitive components in VOC service, except those specifically exempted in Rule 1173, shall be inspected monthly using EPA Reference Method 21.

All components in VOC service, with leak greater than 500 ppm but less than 1000 ppm measured as methane above background using EPA Reference Method 21 shall be repaired within 14 days of detection. A leak of 1,000 ppm or greater shall be repaired according to Rule 1173.

Records of monthly inspection, subsequent repairs and reinspections, if any, shall be maintained for five years in a format approved by the South Coast AQMD, and shall be made available to South Coast AQMD personnel upon request.
[RULE 1303(a)(1)-BACT, 1303(b)(2)-OFFSETS, 1313(g)-EMISSION LIMITATION]

Periodic Monitoring:

10. The operator shall conduct source test(s) in accordance with the following specifications:

The test shall be conducted at least once every 60 calendar months.

The test shall be conducted to determine the bulk loading rate in gallons per hour during the source test.

The test shall be conducted to determine the VOC emission rate in pounds per 1,000 gallons loaded.
[RULE 1303(a)(1)-BACT, RULE 3004(a)(4) –PERIODIC MONITORING]



**FACILITY PERMIT TO OPERATE
EQUILON ENTERPRISES LLC, SIGNAL HILL TERMINAL**

Emissions and Requirements:

11. This equipment is subject to the applicable requirements of the following rules and regulations:

VOC: 0.08 Lb/1000 Gal. Organic Liquid, Rule 462
VOC: 0.065 Lb/1000 Gal. Organic Liquid, Rule 1303(a)(1) – BACT, Rule 1313(g) – Emission
Limitation
VOC/TOC: 35 mg/L Gasoline Loaded, 40 CFR 60 Subpart XX



**FACILITY PERMIT TO OPERATE
EQUILON ENTERPRISES LLC, SIGNAL HILL TERMINAL**

PERMIT TO OPERATE

**Permit No. G25268
A/N 393506**

Equipment Description:

BULK FUEL LOADING RACK NO. 3, CONSISTING OF:

1. SIX BOTTOM LOADING ASSEMBLIES WITH 4" BOTTOM LOADING COUPLERS.
2. SIX PRODUCT METERS.
3. TWO VAPOR RECOVERY ARMS, 4" DIAMETER, CONNECTED TO VAPOR RECOVERY UNIT.
4. SIX LOADING PUMPS, MECHANICAL SEALS, 60-HP EACH, COMMON TO BULK LOADING RACKS NOS. 1, 2, AND 3.
5. TWO ADDITIVE INJECTION PUMPS (WITH ONE SPARE), ROTARY TYPE OR EQUIVALENT, WITH MAGNETIC DRIVE PUMPS, 2-HP EACH, COMMON TO BULK LOADING RACKS NOS. 1, 2, AND 3.
6. ONE ETHANOL METERING SKID CONSISTING OF FOUR 1.5" TURBINE METER, FOUR 2" CONTROL VALVES AND STRAINERS.
7. TWO ETHANOL LOADING PUMPS, CENTRIFUGAL, 30 HP, EACH WITH DOUBLE MECHANICAL SEALS, COMMON TO LOADING RACKS 1, 2, AND 3.
8. TWO ETHANOL UNLOADING PUMPS, CENTRIFUGAL, 25 HP, EACH WITH DOUBLE MECHANICAL SEALS.

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 equipment shall not be operated unless it is vented to air pollution control equipment which is in full use and which has been issued a permit to operate.
[RULE 1303(a)(1)-BACT, RULE 462]
4. The operator shall limit the loading rate of total volume of products to no more than 1,800,000 gallons per day in direct mode and 526,037 gallons per day in bypass mode. Bypass mode is defined as the operation of the carbon adsorber where the vapor flow "bypasses" the vapor holder. The limit(s) shall apply to the total combined loading rate for all three Loading Racks Nos. 1, 2, and 3.
[RULE 462]



**FACILITY PERMIT TO OPERATE
EQUILON ENTERPRISES LLC, SIGNAL HILL TERMINAL**

5. Materials loaded shall consist of petroleum products having a true vapor pressure not to exceed 11 psia including but not limited to gasoline, gasoline additives, oxygenates (including denatured ethanol), diesel and other distillate fuels (including biodiesel and synthetic fuels).
[RULE 463]
6. The operator shall limit the loading rate to no more than 2,118,404 gallons per day. The limit shall apply to the total combined loading rate for all three Loading Racks Nos. 1, 2, and 3.
[RULE 1303(b)(2) – OFFSET, RULE 1313(g) – EMISSION LIMITATION]
7. The continuous hydrocarbon monitoring system shall be in full use at all times and shall alert the operator both audible and visually to prevent hydrocarbon breakthrough. The alarm shall be set to activate at a hydrocarbon emission rate of 0.065 pound hydrocarbon per 1,000 gallons.
[RULE 1303(a)(1) – BACT, RULE 1303(b)(2) – OFFSET]
8. In addition to the records required in Rule 462, the loading throughput record shall be maintained for five years in a format approved by the South Coast AQMD and shall be made available to South Coast AQMD personnel upon request.
[RULE 1303(b)(2) – OFFSET]
9. The following BACT requirements shall apply to new VOC service fugitive components associated with the devices that are covered by this Permit to Construct. All valves shall be bellow-seal valves, except in the following applications: valves in heavy liquid service, control valves, instrument piping/tubing valves, valves requiring torsional stem motion, situations where valve failure could pose safety hazard (e.g. drain valves with valve stems in horizontal position), retrofits/special application valves with space limitation, and valves not commercially available. The South Coast AQMD shall approve all exceptions to this requirement. All valves and new major components shall be physically identified in the field with special markings that distinguish the components from non-BACT components. Additionally, all new components shall be identified as BACT components in the record.

All fugitive components in VOC service, except those specifically exempted in Rule 1173, shall be inspected monthly using EPA Reference Method 21.

All components in VOC service, with leak greater than 500 ppm but less than 1000 ppm measured as methane above background using EPA Reference Method 21 shall be repaired within 14 days of detection. A leak of 1,000 ppm or greater shall be repaired according to Rule 1173.

Records of monthly inspection, subsequent repairs and reinspections, if any, shall be maintained for five years in a format approved by the South Coast AQMD, and shall be made available to South Coast AQMD personnel upon request.
[RULE 1303(a)(1)-BACT, 1303(b)(2)-OFFSETS, 1313(g)-EMISSION LIMITATION]

Periodic Monitoring:

10. The operator shall conduct source test(s) in accordance with the following specifications:

The test shall be conducted at least once every 60 calendar months.

The test shall be conducted to determine the bulk loading rate in gallons per hour during the source test.

The test shall be conducted to determine the VOC emission rate in pounds per 1,000 gallons loaded.
[RULE 1303(a)(1)-BACT, RULE 3004(a)(4) – PERIODIC MONITORING]



**FACILITY PERMIT TO OPERATE
EQUILON ENTERPRISES LLC, SIGNAL HILL TERMINAL**

Emissions and Requirements:

11. This equipment is subject to the applicable requirements of the following rules and regulations:

- VOC: 0.08 Lb/1000 Gal. Organic Liquid, Rule 462
- VOC: 0.065 Lb/1000 Gal. Organic Liquid, Rule 1303(a)(1) – BACT, Rule 1313(g) – Emission Limitation
- VOC/TOC: 35 mg/L Gasoline Loaded, 40 CFR 60 Subpart XX



**FACILITY PERMIT TO OPERATE
EQUILON ENTERPRISES LLC, SIGNAL HILL TERMINAL**

PERMIT TO OPERATE

**Permit No. G15481
A/N 505270**

Equipment Description:

VAPOR RECOVERY SYSTEM, CARBON ADSORBER WITH REGENERATION SYSTEM, JOHN ZINK, MODEL AA-825-6-15B, 200 CFM CAPACITY, SERVING THREE GASOLINE LOADING/UNLOADING RACKS, CONSISTING OF:

1. SIX VAPOR PICK-UP LINES AND A COLLECTION HEADER.
2. ONE VAPOR HOLDER, 30,000-CU. FT. CAPACITY, 30'-0" DIA. X 24'-0" H., FIXED ROOF WITH INTERNAL DIAPHRAGM.
3. TWO CARBON ADSORBERS, 6'-0" DIA. X 15'-0" H. EACH
4. ONE VERTICAL ABSORBER, 2'-6" DIA. X 10'-0" H.
5. ONE HORIZONTAL SEPARATOR, 4'-0" DIA. X 10'-0" L.
6. TWO VACUUM PUMPS, MECHANICAL SEALS, 75 HP EACH.
7. ONE GASOLINE SUPPLY PUMP, MECHANICAL SEALS, 10 HP.
8. TWO GASOLINE RETURN PUMPS, MECHANICAL SEALS, 25 HP EACH.
9. ONE SEAL FLUID CIRCULATION PUMP, 2 HP.
10. TWO BLOWERS, 3-HP EACH, ONE STANDBY.
11. VACUUM BOOSTER BLOWER, WITH 60 HP MOTOR
12. VAPOR HOLDER BYPASS

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. The maximum gasoline loading rate shall not exceed 2,118,404 gallons per day from all three Loading Racks Nos. 1, 2, and 3.
[RULE 1303(b)(2) – OFFSET, 1313(g) – EMISSION LIMITATION]



**FACILITY PERMIT TO OPERATE
EQUILON ENTERPRISES LLC, SIGNAL HILL TERMINAL**

4. The continuous hydrocarbon monitoring system shall be in full use at all times and shall alert the operator both audible and visually to prevent hydrocarbon breakthrough. The alarm shall be set to activate at a hydrocarbon emission rate of 0.065 pound hydrocarbon per 1000 gallons.
[RULE 1303(A)(1)-BACT, RULE 1303(B)(2) - OFFSET]
5. Throughput records shall be maintained for at least five years and made available to South Coast AQMD personnel upon request.
[RULE 1303(B)(2) - OFFSET]
6. The operator shall keep records, in a manner approved by the South Coast AQMD, for the following parameter(s) or item(s):

Gasoline loading rates for Racks Nos. 1, 2 and 3
Frequency of hydrocarbon breakthroughs
[RULE 462, RULE 1303(b)(2) - OFFSET]
7. The vapor holder may be bypassed during periods of maintenance, repair, breakdown, or other times determined appropriate by the permittee. VOC emissions shall not exceed 0.065 pounds per 1,000 gallons of organic liquid loaded while the bladder tank is bypassed. The operator shall keep records of the dates and durations when the vapor recovery system is in bypass mode.
[RULE 1303(a)(1) - BACT, RULE 1303(b)(2) - OFFSET]
8. The operator shall limit the flow rate of the vent gas to the carbon adsorber to no more than 200 standard cubic feet per minute (1-hour average). To comply with this condition, the operator shall install, maintain and operate a flow meter to monitor and record the flow rate of the gases sent to the carbon adsorber at least once every minute.
[RULE 204]

Periodic Monitoring:

9. The operator shall conduct source test(s) when the system is in normal mode, in accordance with the following specifications:

The test shall be conducted at least once every 60 calendar months.

The Test shall be conducted to determine the bulk loading rate in gallons per hour during the source test.

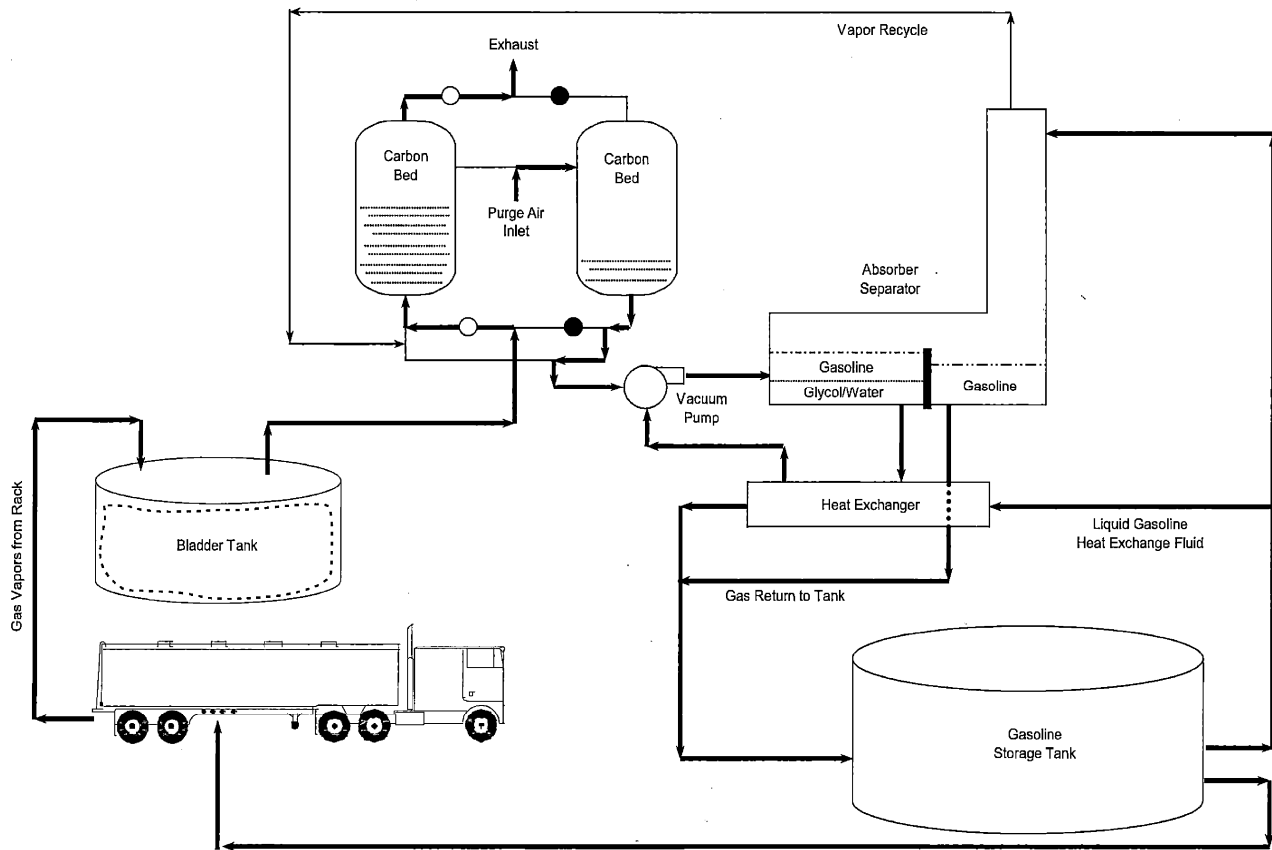
The test shall be conducted to determine the total VOC emission rate in pounds per 1000 gallons of organic liquid loaded and in milligrams per liter of organic liquid loaded.
[RULE 1303(a)(1) - BACT, RULE 3004(a)(4) - PERIODIC MONITORING]

Emissions and Requirements:

10. This equipment is subject to the applicable requirements of the following rules and regulations:

VOC: 0.08 Lb/1000 Gal. Organic Liquid Loaded, Rule 462
VOC: 0.065 Lb/1000 Gal. Organic Liquid Loaded, Rule 1303(a)(1) - BACT
VOC/TOC: 35 mg/L Gasoline Loaded, 40CFR60 Subpart XX
HAP/TOC: 80 mg/L Gasoline Loaded, 40CFR63 Subpart BBBBBB

EXHIBIT A - VAPOR RECOVERY UNIT SCHEMATIC



Clerk of Board

From: Roberta.Lewis@shell.com
Sent: Wednesday, September 4, 2024 12:49 PM
To: Clerk of Board
Cc: Christopher.Sherman@shell.com
Subject: [EXTERNAL] Variance Application - Facility ID 116931 (Case # 4982-136)

Dear Sir or Madam,

On August 19, 2024, Christopher Sherman emailed to you a short variance application (Case # 4982-136) for the Equilon Enterprises LLC dba Shell Oil Products US (Shell) facility located in Signal Hill, CA (Facility ID 116931). Please note that I will be replacing Brian J. Faulkner, Legal Counsel – Environmental, who is listed in Section 2 as a contact for Shell. My contact information is as follows:

Roberta S. Lewis
Senior Legal Counsel
Shell USA, Inc.
E0344
150 N. Dairy Ashford
Houston, TX 77079

Phone: 832-337-1787
Email: roberta.lewis@shell.com

If there are any questions or concerns, please contact me.

Regards,
Roberta

Roberta S. Lewis
(*she/her/hers*)
Senior Legal Counsel – LSPTIP, Safety, Environment & Asset Management
Shell USA, Inc.

Tel: +1 832 337 1787 | Mob: +1 713 240 0823
roberta.lewis@shell.com | www.shell.com

Admitted to practice in Illinois and Texas

To learn more about LSPTIP-SEAM and the resources we offer, visit (accessible within the Shell network, only): [LSPTIP-SEAM Legal Resources](#)