

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

17 MAR 24 A 4:53

PETITIONER: TORRANCE REFINING COMPANY LLC CASE NO: 6060-8
FACILITY ADDRESS: 3700 West 190th Street FACILITY ID: 181667
CITY, STATE, ZIP: Torrance, CA 90509-2929

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

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3. RECLAIM Permit Yes No Title V Permit Yes

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)

N/A

Persons with disabilities may request this document in an alternative format by contacting the Clerk of the Board at 909-396-2500 or by e-mail at clerkofboard@aqmd.gov.

If you require disability-related accommodations to facilitate participating in the hearing, contact the Clerk of the Board at least five (5) calendar days prior to the hearing.

[ALL DOCUMENTS FILED WITH CLERK'S OFFICE BECOME PUBLIC RECORD]

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

Torrance Refining Company LLC's ("TORC's") business is petroleum refining. TORC owns and operates the Torrance Refinery. Key processes at the Refinery include cracking of heavy petroleum hydrocarbons in the Refinery's FCCU, processing and treatment of crude oil feed in the Crude Unit, storage and loading of gasoline and other finished petroleum products, and operation of numerous air pollution control systems.

6. List the equipment and/or activity(s) that are the subject of this petition (see Attachment A, 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.

Relevant pages of the Facility Permit are attached as Exhibit 1.*

Equipment/Activity	Facility ID	RECLAIM Device No.	Date Application/Plan Denied (if relevant)*
Process 1 (Crude Unit), Systems 1, 2, 3, 4, and 7.	181667	Process 1, Systems 1, 2, 3, 4, 7	N/A
Process 2 (Coking), Systems 1, 2, 4, 5, and 9	181667	Process 2, Systems 1, 2, 4, 5, 9	N/A
Process 3, Systems 1, 2, 5 and 7 (Fluid Catalytic Cracking Unit)	181667	Process 3, Systems 1, 2, 5, 7	N/A
Process 4, Systems 1 and 3 (Reformer Feed Hydrotreater Unit)	181667	Process 4, Systems 1, 3	N/A
Process 4, System 5 (Product Hydrodesulfurization Unit)	181667	Process 4, System 5	N/A
Process 5, Systems 1 and 2 (Catalytic Reforming Unit)	181667	Process 5, Systems 1, 2	N/A
Process 6, Systems 1, 2, and 6 (Hydrogen Production Unit)	181667	Process 6, Systems 1, 2, 6	N/A
Process 7, Systems 1 and 3 (Hydrocracking Unit)	181667	Process 7, Systems 1, 3	N/A
Process 8, Systems 1, 2, 3, 4, and 6 (Alkylation)	181667	Process 8, Systems 1, 2, 3, 4, 6	N/A
Process 9, Systems 1, 2, 5, and 6 (Saturate Gas Plant Unit)	181667	Process 9, Systems 1, 2, 5, 6	N/A
Process 11, Systems 1 - 12 (Treating/Stripping Unit)	181667	Process 11, Systems 1-12	N/A
Process 12, Systems 1 - 4 (Sulfur Production Unit)	181667	Process 12, Systems 1-4	N/A
Process 13, Systems 1 - 4 (Loading/Unloading Unit)	181667	Process 13, Systems 1-4	N/A
Process 16, System 3	181667	Process 16, System 3	N/A
Process 17, Systems 5 and 8 (Miscellaneous Units)	181667	Process 17, Systems 5 and 8	N/A

Process 18, System 1 (Treating/Stripping Unit)	181667	Process 18, System 1	N/A
Process 19, System 3 (Coker Off Gas/Central VR Compressor Unit)	181667	Process 19, System 3	N/A
Refinery Emergency Relief System - Flare 65F-3	181667	C891	N/A
Refinery Emergency Relief System - Flare 65F-4	181667	C892	N/A
2C-26-CY Fourth Stage Separator Cyclone	181667	C2314	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.

FCCU

The fluid catalytic cracking unit ("FCCU") is one of the central process units at the Refinery. The FCCU system "cracks" heavy gas oil into smaller hydrocarbon chains, which forms FCC gasoline blendstock and other fuel products. The FCCU is identified under Process 3 in Section D of the Title V Permit and performs feed cracking, products fractionation, energy recovery, and other functions.

The flue gas from the FCCU Regenerator passes through the 2C-25 Third Stage Separator Cyclone (Device No. C1590) ("TSS") and Fourth Stage Separator Cyclone (Device No. C2314) ("FSS"). From the TSS, the flue gas connects with the residual flue gas flow from the FSS and continues through the rest of the FCCU's air pollution control ("APC") system and then out the Main Stack. The APC system following the TSS/FSS is composed of the following: the 2F-3 CO Boiler (Device No. C164); 2D-17 ESP (Device No. C2283); 2D-18 ESP (Device No. C2284); and the SCR System (C1772). The TSS and ESPs minimize visible emissions by controlling opacity and PM emissions from the flue gas. The SCR System controls NOx emissions from the flue gases. Finally, the flue gas flows through a non-fired 2F-7 Waste Heat Boiler ("Boiler 2F-7", Device No. D1511) and then through the 100-foot Main Stack (Device No. S1739). This Main Stack is equipped with a Continuous Emission Monitoring System (CEMS) that measure opacity, CO, NOx, SOx, oxygen ("O2"), and stack flow. See Exhibit 2 for a simplified diagram of the equipment described above.

Flare/VRS

The Refinery utilizes an integrated Flare/Vapor Recovery System ("Flare/VRS") to control Refinery vent gases from process units and tanks. The Flare/VRS consists primarily of the VRS and two General Service Flares 65F-3 and 65F-4 (Device Nos. C891 and C892). Excess Refinery vent gases from all processes are effectively recovered by the VRS, treated, and reused as Refinery fuel gas. During routine, everyday operations, the VRS captures all vent gases, and the Refinery does not flare. However, in the event that the VRS cannot treat all of the vent gases, the gases are legally required by District regulation to be safely vented to the Refinery flare system for safe destruction, in accordance with District Rule 1118 and other federal regulations such as NSPS Subparts A and J.

The flares are normally operated in stand-by mode 24 hours a day, seven days a week and do not routinely combust waste gases unless needed in the event of emergencies, start-ups, shut downs, turnarounds, and essential operational needs, against pursuant to the requirements of District Rule 1118. **The Refinery does not get to choose when to flare and when not to flare;** legal requirements and safety considerations mandate that the Refinery flare under these circumstances. When the flare line pressure increases over the capacity of the VRS, the gas begins to build pressure on the 65F-3 and 65F-4 flare water seals system. Once the pressure in the flare header increases sufficiently to break through the water seals, vent gas flows through the water seals to the general service flares. Typically, the level in the 65F-3 water seal is maintained at a slightly lower level than the level of the 65F-4 water seal, allowing gas to preferentially flare out of 65F-3 first. Additionally, a bypass valve on the 65F-3 flare allows vent gas to bypass the water seal in order to reduce the level of noise generated from flare gas breaking through the water seal system.

Finally, another unit relevant to the facts of this petition is Unit 24, which is Hydrogen Plant No. 2 (Process 6,

System 2). Unit 24 is one of two hydrogen gas producing units. Its feedstock consists of natural gas and refinery fuel gas treated gas (RFG) that is hydrotreated (i.e., sulfur removal) prior to its conversion to hydrogen in the Reformer Reactor 24F-1R (Device No. D2242). The reformed gas is then sent to high and low temperature shift reactors to produce additional hydrogen by converting CO to CO₂. The low temperature shift effluent is then sent to the Pressure Swing Absorber (Device No. D372) ("PSA") to separate the CO₂ and hydrogen. The yield from the PSA is greater than 99% purity product hydrogen. The impurities from the PSA unit are used as fuel in the reformer. The hydrogen stream is then supplied to the Hydrotreater Unit and other H₂ consumers at the Refinery.

A simplified flow diagram of the flare and flue gas train system is depicted in the diagrams attached hereto as Exhibit 2.

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

If yes, how often: See below Date of last maintenance and/or inspection: See below

Describe the maintenance and/or inspection that was performed.

FCCU

Pursuant to applicable federal and state regulations as well as industry standards, the FCCU is regularly maintained using a combination of frequent external inspections and scheduled periodic outages for major maintenance. Consistent with this, TORC conducts planned and unplanned preventative maintenance on the FCCU, the flare system, the TSS and FSS cyclones, and associated equipment. In addition, TORC conducts repairs on an as-needed basis on this equipment. Regularly scheduled maintenance and inspection on the FCCU are performed during FCCU turnarounds. The last FCCU turnaround began in April 2015 by the former Refinery operator and lasted until April 2016. During this turnaround, inspections, preventive maintenance and repairs were performed on the Reactor, Regenerator, ESPs, TSS, FSS and a number of other process units.

Specific to the FSS, the piping section and the flange between the TSS Cyclone and FSS Cyclone where the reducer piping is located were most recently inspected in August 2009 by the prior Refinery operator. Ultrasonic thickness scans taken at that time showed no excessive erosion or thinning in this piping section. The inspection determined the section piping had a life expectancy of at least between 2017 and 2019. The reducer piping was replaced during the 2010 FCCU turnaround. With the replacement, the new piping was expected to last at least until the next FCCU turnaround, which is currently scheduled for 2020, at which time it will also be inspected.

TORC has experienced intermittent flue gas leaks from the FSS associated with loose packing in a valve and cracked piping since TORC took over the Refinery from ExxonMobil on July 1, 2016. Investigations revealed that the crack in the piping was attributable to intergranular cracking from the inside piping wall through sensitized steel microstructure, due to polythionic stress corrosion cracking ("PASCC"). TORC has timely reported three breakdowns (Notifications 441591, 445870 and 449045) for these leaks and has temporarily repaired the leaks to remain in compliance with its permit for now. However, TORC's maintenance team has determined that new leaks eventually will develop without a more permanent fix. TORC was planning on replacing the cracked piping by end of 2016; however, unexpected power supply interruptions from Southern California Edison ("SCE") on September 19, 2016 and October 11, 2016 forced postponement of this work. In order to permanently stop the leaks, exercise safe maintenance practices, and ensure ongoing compliance with its permit and District rules, TORC must now take the FSS temporarily out of service to replace the piping at issue.

Flare

Specific to Flare 65F-4, turnarounds are generally performed every six years for Flares 65F-3 and 65F-4. Planned inspection and maintenance on the Flares are conducted pursuant to federal, state, and industry standards. Maintenance last occurred on Flare 65F-3 and 65F-4 in the summer of 2015. TORC will be undergoing a turnaround beginning in April 2017 with multiple units to be shut down. Additional maintenance work is now needed on Flare 65F-4 to implement upgrades required under EPA's Refinery Sector Rule (RSR). These include adding new flow meter instrumentation to measure flow, H₂S, BTU, and piping for natural gas and steam lines to meet combustion efficiency required by the RSR. In addition, the Refinery will perform

general maintenance to the various sections of piping of the flare system, and conduct API 510 inspection for a vessel. RSR became effective February 1, 2016, and the previous operator of the Refinery did not complete this RSR-required work prior to TORC taking over operation of the Refinery. Because of the time needed for planning and installation of the RSR-related requirements, and because of the requirement for Flare 65F-4 to be out of service for the work to be completed, TORC did not have an opportunity to complete this work until now.

The flares' existing flow meter and analyzer system are maintained and calibrated pursuant to District Rule 1118. The flow meter is calibrated on an annual basis and was last calibrated on December 1, 2016, while the analyzer systems are calibrated daily. Additionally, upgrades to the Flares' flow measurement equipment were completed in September 10, 2013 to improve readings at low flows. The manufacturer was also onsite to fine-tune data collection and reporting, including codes, alarms, logic and harmonize the performance. The Refinery also recently added upgrades to ensure data communication to control room during power bumps.

9. List all District rules, and/or permit conditions 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, Example #2).

Rule	Explanation
202(a), 203(b), 2004(f)(1), 3002(c)(1)	Under District Rule 203(b), equipment that is required to have a permit "shall not be operated contrary to the conditions specified in the permit to operate." District Rule 2004(f)(1) and Rule 3002(c)(1) reiterate the requirement to comply with all Permit Conditions. Because the Refinery will be unable to comply with the various District Rules and Regulations and Title V Permit conditions listed below, the Refinery will need Short Variance and AOC relief during the maintenance period for the FSS and Flare 65F-4.
202(a), 203(b), 2004(f)(1), 3002(c)(1) [Condition S15.1 of Title V Permit No. 181667, for Processes 1-9, 11-13 and 17-19]	For the Refinery Processes 1-9, 11-13 and 17-19 of the Refinery's Title V Permit Section D, condition S15.1 requires that, "All emergency vent gases shall be directed to a blowdown flare system . . . This process/system shall not be operated unless the blowdown flare system is in full use and has a valid permit to receive vent gases from this system." As discussed further below, in order for Refinery workers to safely perform work on Flare 65F-4, the flare must be isolated from the Refinery's Flare/VRS and shut down. Once isolated, the flare system will not be in full use. Therefore, the Refinery will not be able to comply with Condition S15.1 until Flare 65F-4 is returned to normal operation and is reconnected to the Flare/VRS. Therefore, TORC seeks Short Variance and AOC relief from this Condition.
202(a), 203(b), 2004(f)(1), 3002(c)(1) [Condition S15.15 of Title V Permit No. 181667 for Process 2, System 9, Process 6, System 6, Process 7, System 3, Process 9, System 6, and Process 16, System 3]	Regarding the Refinery Processes (Process 2, System 9, Process 6, System 6, Process 7, System 3, Process 9, System 6, and Process 16, System 3), Section D Condition S15.15 of the Refinery's Title V Permit Condition requires that "All emergency vent gases shall be directed to the vapor recovery system and or flare . . . This process/system shall not be operated unless the vapor recovery/flare system is in full use and has a valid permit to receive vent gases from this system." To safely undertake the inspection, maintenance, and upgrades required by RSR as described in this petition, Flare 65F-4 must be isolated from the Refinery's Flare/VRS and shut down. Once isolated, the flare system will not be in full use. As a result, the Refinery will not be able to comply with Condition S15.15 until Flare 65F-4 is returned to normal operation and is reconnected to the Flare/VRS. Therefore, TORC seeks Short Variance and AOC relief from this Condition.
202(a), 203(b), 2004(f)(1),	

<p>3002(c)(1) [Permit Conditions E336.21 and E336.23 of Title V Permit No. 181667]</p>	<p>For the Refinery processes and systems listed in this petition, section D Conditions E336.21 and E336.23 of the Refinery's Title V Permit require vent gases to be directed to a Flare System, which must be in "full use."</p> <p>To safely undertake the inspection, maintenance, and upgrades required by RSR as described in this petition, Flare 65F-4 must be isolated from the Refinery's Flare/VRS and shut down. Once isolated, the flare system will not be in full use. As a result, the Refinery will not be able to comply with Conditions E336.21 and E336.23 until Flare 65F-4 is returned to normal operation and is reconnected to the Flare/VRS. Therefore, TORC seeks Short Variance and AOC relief from these Conditions.</p>
<p>202(a), 203(b), 2004(f)(1), 3002(c)(1) [Administrative Condition E.4 of Title V Permit No. 181667]</p>	<p>Section E, Administrative Condition E.4, of TORC's Title V Permit provides that "[t]he operator shall not use equipment identified in this facility permit as being connected to air pollution control equipment unless they are so vented to the identified air pollution control equipment which is in full use and which has been included in this permit."</p> <p>As discussed below, recurring intermittent leaks in the piping to the FSS require TORC to temporarily take the FSS offline to allow employees safe access to conduct the piping replacement. The FSS is designated in the Refinery permit as an air pollution control device (Device No. C2314) for the FCCU Regenerator (Device No. D151). In order to allow safe worker access to conduct the piping replacement work, the FSS must be bypassed and taken offline. During the FSS piping replacement work, the Refinery will be continuing to operate the FCCU while the FSS – a unit designated as an air pollution control device in the permit – will be bypassed and not in "full use." As discussed below, continued FCCU operation is critical to minimizing air pollution and business impacts; having to shut down the FCCU just to do the FSS piping replacement would result in excess emissions and opacity from FCCU shutdown and restart, while allowing continued FCCU operation will result in no excess emissions or excess opacity.</p> <p>To safely undertake the inspection, maintenance, and upgrades required by RSR as described in this petition, Flare 65F-4 must be isolated from Refinery's Flare/VRS System and shut down. Once isolated and shut down, control device Flare 65F-4 will not be in full use. In addition, TORC plans to further mitigate flaring and flaring emissions by safely venting (i.e., without flaring) excess high purity hydrogen generated from PSA of the Hydrogen Plant No. 2 (Process 6, System 2) unit. This will have the effect of significantly reducing the duration and intensity of flaring from the remaining operational 65F-3 flare while not adding any harmful pollutants to the atmosphere. However, despite the fact that it does not add excess harmful pollutants to the atmosphere, bypassing the flare system to directly vent hydrogen technically means that the hydrogen gases will not be vented to connected air pollution control equipment (i.e., the flares) during the variance period.</p> <p>Therefore, TORC seeks Short Variance and AOC relief from Administrative Condition E.4.</p>
<p>202(a), 203(b), 2004(f)(1), 3002(c)(1) [Administrative Condition E.8 (first sentence only) of Title V Permit No. 181667]</p>	<p>The first sentence of Administrative Condition E.8 provides that "[a]ll equipment operating under the RECLAIM program shall comply concurrently with all provisions of AQMD Rules and Regulations, except those listed in Table 2 of Rule 2001 for NOx RECLAIM sources."</p> <p>Because the Refinery will be unable to comply with District Rules 202, 203, 2004, and 3002 during the Short Variance and AOC period, it also will be unable to comply with Administrative Condition E.8. Therefore, the Refinery is requesting Short Variance and AOC from this Administrative Permit Condition during the piping replacement work on the FSS.</p>

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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
N/A			

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
6060-2	August 17, 2016	Sept. 30, 2016	Short Variance and AOC relief granted to perform state-mandated inspection and maintenance of CO Boiler.
6060-3	Sept. 21, 2016	Sept. 27, 2016	Ex Parte Emergency Variance granted to restart facility after Edison power outage.
6060-4	Oct. 12, 2016	Oct. 12, 2016	Ex Parte Emergency Variance granted to restart facility after Edison power outage.
6060-7	Jan. 31, 2017	Feb. 7, 2017	Ex Parte Emergency Variance granted to repair a break in facility wastewater line caused by massive rains.

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.

Attached hereto as **Exhibit 3** are copies of NOVs related to the equipment covered under this Variance Petition.

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):

It is beyond TORC's reasonable control to comply with the above referenced Rules and Title V Permit Conditions because the Refinery must repair the FSS to permanently mitigate recurring leaks in that unit's piping. The FSS must be taken offline and bypassed for up to six days in order to allow Refinery personnel to safely access the FSS to repair recurring intermittent gas leaks from the FSS' associated valves and piping, which had occurred even before TORC took over the Refinery in July 2016. After identifying the believed cause of the leaks (*i.e.*, intergranular cracking from the inside piping wall through sensitized steel microstructure due to PASCC), Refinery personnel have implemented temporary fixes to correct them, and have been diligently evaluating the best permanent repair strategy. Based on this evaluation, TORC has determined that the only way to ensure a permanent fix is to replace the FSS piping.

In addition, it is beyond TORC's reasonable control to comply with the above referenced Rules and Title V Permit Conditions because the Refinery must conduct necessary inspection and maintenance on the Refinery's General Service Flare 65F-4 to keep the unit in good working order and to meet new federal standards contained in the RSR. This work includes adding flow meter instrumentation to measure flow, H2S, BTU, natural gas and steam lines to meet combustion efficiency required by the RSR. In addition, the Refinery will perform general maintenance to the various sections of piping of the flare system, and conduct API 510 inspection for a vessel. This work requires isolation of Flare 65F-4, and bypass measures to ensure

that any gases normally going to Flare 65F-4 are re-routed to Flare 65F-3.

In order to safely undertake this maintenance and repair work, Flare 65F-4 must be isolated and shut down. The proposed inspection and maintenance requires certain activities (including installation of new piping to pilots and steam lines to the Flares) that can only be completed while the Flare is out of service and isolated. Proper operation of the Flares is critical for maintaining the Refinery's ability to safely dispose of vent gases from process units and tanks as provided by District Rule 1118 (i.e., during emergencies, start-ups, shut downs, turnarounds, and essential operational needs). TORC cannot avoid taking Flare 65F-4 offline to allow workers to safely access the unit to perform this maintenance.

While the FSS is bypassed, TORC expects no excess emissions or opacity during the Short Variance and AOC period. Flue gas that normally would go to the FSS Cyclone will instead be rerouted from the TSS to the 2F-3 CO Boiler ("CO Boiler"), then to the ESPs, and then to the SCR System ("SCR") and out the Main Stack 2F-7 (S1739). The Refinery's Process Engineering Group has confirmed that the ESPs are sufficiently designed to handle the small additional catalyst fines that normally go to the FSS Cyclone (only 0.5% by weight of the total flue gas stream that goes to the TSS Cyclone is directed to the FSS Cyclone). This was determined by obtaining the design capacity of the ESPs, the base case capacity of the ESPs, and the maximum FSS capacity. Even when the maximum FSS capacity is added to the base case capacity of the ESPs, the sum is still less than the design capacity. Even though there are no excess emissions, it is beyond TORC's reasonable control to comply with Administrative Condition E.4 of the Permit, since TORC plans to continue operations of the FCC Unit while the FSS is not in "full use."

Moreover, no emissions will come from Flare 65F-4 while it is offline for maintenance. The existing VRS will retain its same capacity to handle vent gases under normal operations, and the Refinery will be operating at turn down rates (and if necessary, can further adjust process unit rates and make operational changes) to minimize the load on the VRS system. During this time, District Rule 1118 still specifically allows for flaring during emergencies, start-ups, shut downs, turnarounds, and essential operational needs (and most importantly, safety considerations would mandate flaring in those situations). But even in the unlikely event that the flare is needed for some emergency or other unexpected event, Flare 65F-3 will have enough capacity to handle all vent gases from the process units in full compliance with District Rule 1118.

However, because the Flare is designated as an air pollution control device in the permit for a number of other processes and systems, shutting it down and bypassing it during this maintenance period will mean that TORC cannot reasonably avoid a technical violation of Permit Conditions S15.1, S15.15, E336.21 and E336.23, all of which require the flare system to be in "full use" while various equipment and processes connected to it are operating. For the same reason, it is also beyond TORC's reasonable control to comply with Administrative Condition E.4 of the Permit, since TORC plans to continue operations while Flare 65F-4 is not in "full use." Moreover, TORC plans to further mitigate flaring and flaring emissions by safely venting excess high purity PSA hydrogen during the maintenance period. This hydrogen will not be consumed by the Hydrotreater plant during this time, as the Hydrotreater will also be at reduced rates and portions of the unit will be undergoing for turnaround work. Rerouting high purity hydrogen to simply be vented rather than flared will significantly reduce the duration and intensity of flaring from the remaining operational 65F-3 flare while not adding any harmful pollutants to the atmosphere. Bypassing the flare system to directly vent hydrogen technically means that these hydrogen gases will not be vented to connected air pollution control equipment (i.e., the flares) during the variance period, meaning that it will also be beyond TORC's reasonable control to comply with Condition E.4 while it is mitigating flaring to the maximum extent possible.

Because TORC will not be in compliance with Title V Permit Conditions S15.1, S15.15, E336.21 and E336.23, and Administrative Condition E.4 during the bypassing of Flare 65F-4 and the FSS, TORC also cannot avoid noncompliance with Section E, Administrative Condition E.8 (first sentence only) and District Rules 202, 203, 2004 and 3002, all of which generally require the Refinery to comply with District Rules and Permit conditions.

TORC cannot reasonably avoid noncompliance with these rules and conditions as a result of conducting the necessary maintenance of these units. The only way TORC could strictly comply with its Title V Permit Conditions and District Rules is either (a) to forego the maintenance altogether, which could risk a serious or catastrophic failure of the Flare 65F-4 and continued leaks from the FSS (both of which would result in significant excess emissions, impacts to the community, noncompliance with RSR and API-required inspection) or (b) to shut down the FCCU and multiple connected process units for roughly three months just to conduct the necessary maintenance. Not only would each of these courses of action cause significant

economic harm to TORC and its employees as discussed further in Section 17 below, but shutting down and then restarting the FCCU and its related units would result in excess emissions and opacity from flaring. The currently proposed inspection and maintenance plan for Flare 65F-4 and the TSS best accomplishes needed maintenance while avoiding excess emissions and minimizing safety risks.

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)?

At this time, TORC is in compliance with all District Rules and its Title V Permit Conditions. However, for the reasons described above, TORC will not be able to maintain compliance with the above-mentioned District Rules and Permit conditions once it isolates Flare 65F-4 and the FSS for necessary maintenance and repairs. Such noncompliance will continue until the maintenance is complete and Flare 65F-3 and the FSS are returned to normal operation and no longer bypassed. TORC adheres to a practice of requesting Short Variance and AOC coverage before such non-compliance occurs.

TORC has been aware since it took over the facility in July 2016 that recurring leaks in the FSS piping would require the FSS to come offline for piping replacement. TORC was planning on replacing the cracked piping by end of 2016; however, unexpected power supply interruptions from Southern California Edison ("SCE") on September 19, 2016 and October 11, 2016 forced postponement of this work. In order to permanently stop the leaks, exercise safe maintenance practices, and ensure ongoing compliance with its permit and District rules, TORC must now take the FSS temporarily out of service to replace the piping at issue.

16. What actions have you taken since that time to achieve compliance?

As noted above, TORC currently is in compliance with all District Rules and its Title V Permit Conditions. During maintenance of Flare 65F-4 and the FSS, while those units are offline and isolated, TORC intends to limit the amount of non-compliance to the maximum extent feasible by working to complete the maintenance as quickly and as safely as possible, so that Flare 65F-4 and the FSS can be returned to operation as quickly as possible. TORC also plans to operate the Refinery at turn down rates during the maintenance to reduce load on the VRS and ensure that Flare 65F-3 would have sufficient capacity to handle all vent gases if needed for flaring. Moreover, during the variance period, TORC will directly vent high purity PSA hydrogen to the atmosphere rather than flaring it, which will also mitigate the duration and intensity of flaring while avoiding the addition of harmful pollutants to the atmosphere. These steps will help ensure that the Refinery will have no excess emissions or opacity during the Short Variance and AOC period.

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

Economic losses: Potentially \$1.5 million to \$2 million per day if the Refinery must be shut down for several weeks just to complete maintenance on Flare 65F-4 and the FSS.

Number of employees laid off (if any): Not expected unless there is an extended Refinery-wide shutdown

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

The denial of this Short Variance and AOC would result in significant harm to the Refinery and the environment. As discussed above, TORC relies on proper operation of Flare 65F-4 in order to safely shut down and start up process units and safely handle any vent gases generated from emergencies or process upsets. TORC must perform maintenance on Flare 65F-4 to ensure its continued proper operation. In order to allow workers safe access to complete this maintenance, TORC must bypass vent gases around Flare 65F-4 and route them

instead to Flare 65F-3 during the roughly three months needed to complete the maintenance work. If the requested Short Variance and AOC are not granted, to maintain strict compliance the Refinery would either have to (a) entirely forego the necessary maintenance of Flare 65F-4, which could risk a serious or catastrophic failure of the flare that would cause significant excess emissions (and also cause the Refinery to violate the standards and requirements of RSR), or (b) entirely shut down the FCCU and several connected major process units for nearly three months to complete maintenance on Flare 65F-4 and the FSS.

The FCCU is critical to Refinery operations for TORC to supply its customers and meet its contractual commitments for gasoline and other types of fuels throughout the western United States. Not only would restart of the FCCU and the other associated process units result in much greater excess emissions and flaring than if this Short Variance and AOC is granted, such an extended shutdown of most of the Refinery's key refining process units would result in a reduction of gasoline supply as well as supply of other finished petroleum products to the market, corresponding impacts throughout those markets, economic losses for TORC, and potential violation of its contracts. Moreover, restart of the FCCU and its associated process units would itself require a Variance and AOC from this Hearing Board, and if that Variance and AOC were not granted, the Refinery could be prohibited from ever restarting the FCCU, resulting in shutdown of the entire Refinery, millions of dollars of losses to TORC, loss of hundreds of jobs in Torrance, and disruption of local and regional petroleum markets (in that TORC supplies roughly 10% of the Southern California gasoline market). This would result in severe economic hardship for many people and significant impacts on citizens who rely on a stable market for gasoline.

The current estimated economic losses if the FCCU must be shut down, resulting in other units being shut down and/or operated at reduced rates, are approximately \$1.5 million to \$2 million each day. The excess and flaring emissions associated with the entire Refinery being shut down and restarted could be approximately 6,000 pounds of NOx, 21,000 pounds of SOx, 8,000 pounds of CO, 800 pounds of PM, and 1,400 pounds of VOC.

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

TORC cannot reasonably curtail or terminate operations to avoid having to seek a Short Variance and AOC here, as curtailment still would not enable TORC to comply with all applicable provisions of District Rules or its Title V Permit Conditions. As discussed above, the Refinery already will be curtailing operations during the Short Variance and AOC period to reduce load on the VRS and to ensure that the remaining operational Flare 65F-3 has sufficient capacity to handle all vent gases if flaring is needed. This curtailment, however, does not change the fact that TORC will still need to isolate and bypass Flare 65F-4 and the FSS – two air pollution control devices – in order to allow safe access for maintenance. It is this bypass that causes the noncompliance.

Moreover, as discussed above, the Flare and FSS maintenance cannot simply be cancelled to avoid the need for a Short Variance and AOC. The proper operation of the Flare 65F-3 and 65F-4 is critical for maintaining the ability to safely dispose of vent gases allowed by District Rule 1118 (i.e., during emergencies, startups, shut downs, turnarounds, and essential operational needs) at the Refinery. Maintenance of Flare 65F-4 must be completed in order to ensure proper operation and future reliability of the Flare and meeting future requirements of the RSR. In addition, repairs to the FSS are required to replace the cracked piping and permanently address these recurring leaks once and for all. TORC cannot reasonably avoid having to do this necessary maintenance and repair work without creating unacceptable safety and reliability concerns. Safe worker access to perform the required maintenance cannot take place unless Flare 65F-4 and the FSS are shut down and bypassed.

Even a more drastic termination of FCCU and related process unit operations (or even shutdown of the entire Refinery) would not ultimately avoid the need for a Short Variance and AOC. Variance relief still would be needed for the restart of the FCCU and other affected units, which would lead not only to the significant economic and contractual impacts to TORC as discussed above, but would also result in significant excess emissions and flaring. In contrast, the relief being sought in these Short Variance and AOC petitions would not result in any excess emissions during the Short Variance and AOC period, given that the other Refinery control equipment would adequately ensure compliance with those limits even while Flare 65F-4 and the FSS are offline.

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, 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	0	N/A	0

* Column A minus Column B = Column C

Excess Opacity: N/A %

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

TORC does not anticipate any excess opacity or excess emissions during the Short Variance and AOC period. As discussed above, if the Short Variance and AOC are granted, TORC will continue operation of the FCCU and most Refinery process units at reduced rates, allowing the VRS system to handle and recover all vent gases being generated. Moreover, during the maintenance and repair of Flare 65F-4 and the FSS, the TSS, ESPs, CO Boiler and SCR will continue to be fully functional and operational. FCCU flue gases and catalyst fines that normally go from the TSS to the FSS will be rerouted from the TSS through the CO Boiler, then to the ESPs, and then to the SCR, ensuring that no District Rule or permit emission or opacity limits are exceeded.

As support for this, the Refinery's Process Engineering Group has confirmed that the TSS and ESPs are sufficiently designed to handle the additional catalyst fines that normally go to the FSS (only 0.5% by weight of the total flue gas stream that goes to the TSS is directed to the FSS Cyclone). This was determined by obtaining the design capacity of the ESPs, the base case capacity of the ESPs, and the maximum FSS capacity. Even when the maximum FSS capacity is added to the base case capacity of the ESPs, the sum is still less than the design capacity. Attached **Exhibit 4** shows the Refinery's conclusion that the TSS and ESPs have sufficient capacity to handle the small additional catalyst fines that normally go to the FSS.

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.

TORC does not anticipate any excess opacity or excess emissions during the Short Variance and AOC period. Nevertheless, during the Short Variance and AOC period, the Refinery will reduce emissions to the maximum extent feasible by working to complete the maintenance of Flare 65F-4 and the FSS as quickly as possible and safely return to normal operations as quickly as possible. The Refinery will dedicate the needed on-site personnel and resources to achieve this as rapidly and safely as possible.

Also, during the variance period, the Refinery plans to safely vent high purity PSA hydrogen, which will have the effect of significantly reducing the duration and intensity of flaring from the remaining operational 65F-3 flare while not adding any harmful pollutants to the atmosphere.

TORC has attached proposed Short Variance and AOC Conditions as **Exhibit 5**.

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.**

TORC does not anticipate any excess opacity or excess emissions during the Short Variance and AOC period. However, Refinery emissions will continue to be monitored by the Refinery's FCCU RECLAIM certified CEMS at the 2F-7 Main Stack, as required by the Permit. Any opacity during the Short Variance and AOC period would also be monitored by the certified Continuous Opacity Monitoring System (COMS) at the 2F-7 Main Stack.

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.

The Refinery plans to return to compliance by completing the Flare 65F-4 maintenance and the FSS piping replacement as quickly and safely as possible, removing the bypasses and returning both units to normal operation. The Refinery plans to stop the bypassing and put the FSS in full use as expeditiously as possible, and when it is safe to do so. The Refinery will dedicate the needed on-site personnel and resources to achieve this as rapidly and safely as possible.

The maintenance work on these units is scheduled to start in the first week of April 2017, and will continue through the fourth week of June 2017. This will still be within the 90-day relief that Board is authorized to grant as part of a Short Variance and AOC.

24. State the date by which you expect to achieve final compliance: July 1, 2017

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, Example #3).

List Increments of Progress here:
N/A

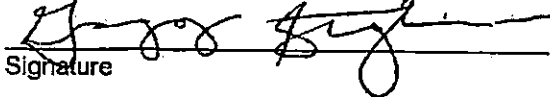
25. List the names of any District personnel with whom facility representatives have had contact concerning this variance petition or any related Notice of Violation or Notice to Comply.

Inspector Rhonda Laugeson

Ext. 310-233-7004

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 March 24, 2017, at Torrance, California


Signature

Gregg Stalic
Print Name

Supervisor -- Environmental Field Programs
Title

26. **SMALL BUSINESS and TABLE III SCHEDULE A FEES:** To be eligible for reduced fees for small businesses, individuals, or entities meeting small business gross receipts criterion [see District Rule 303(h)], you must complete the following:

Declaration Re Reduced Fee Eligibility

1. The petitioner is

a) € an individual, or

b) an officer, partner or owner of the petitioner herein, or a duly authorized agent of the petitioner authorized to make the representations set forth herein.

If you selected 1a, above, skip item 2.

2. The petitioner is

a) € a business that meets the following definition of Small Business as set forth in District Rule 102:

SMALL BUSINESS means a business which is independently owned and operated and meets the following criteria, or if affiliated with another concern, the combined activities of both concerns shall meet these criteria:

(a) the number of employees is 10 or less; **AND**

(b) the total gross annual receipts are \$500,000 or less or

(iii) the facility is a not-for-profit training center.

-OR-

b) € an entity with total gross annual receipts of \$500,000 or less.

3. Therefore, I believe the petitioner qualifies for reduced fees for purpose of filing fees and excess emission fee calculations, in accordance with Rule 303(h).

I declare under penalty of perjury that the foregoing is true and correct.

Executed on _____, at _____, California

Signature

Print Name

Title

ATTACHMENT A

ITEM 1

Type of Variance Requested:

- (a) **SHORT:** If compliance with District rule(s) can be achieved in 90 days or less, request a short variance. *(Hearing will be held approximately 21 days from date of filing – 10-day posted notice required.)*
- (b) **REGULAR:** If compliance with District rule(s) will take more than 90 days, request a regular variance. If the variance request will extend beyond one year, you must include a specific detailed schedule of increments of progress [see Page 8, No. 24] under which you will achieve final compliance. *(Hearing will be held approximately 45 days from date of filing – 30-day published notice required.)*
- (c) **EMERGENCY:** If non-compliance is the result of an unforeseen emergency, such as a sudden equipment breakdown, power failure, or accidental fire, you may request an emergency variance. You may request an *ex parte* emergency variance in addition to an emergency variance. **An emergency variance cannot be granted for more than 30 days.** *(Hearing will be held within 2 working days from the date of filing, whenever possible, excluding Mondays, weekends, and holidays.)* **If you request an emergency variance, you must answer No. 4 on page 1.**
- (d) **EX PARTE EMERGENCY:** If variance coverage is required on a weekend or when the Board is not in session, and you cannot wait until an emergency variance hearing can be held, you may request an *ex parte* emergency variance. An *ex parte* emergency variance will be granted or denied solely on the information contained in the petition and the District's response to the petition. Under most circumstances, an *ex parte* emergency variance will remain in effect only until a hearing can be held. **If you request an *ex parte* variance, you must answer No. 4 on page 1.**
- (e) **INTERIM:** If you require immediate relief (other than for emergencies) to cover the time until a short or regular variance hearing can be held, request an interim variance. If you request an interim variance, you must also request a short or a regular variance on the same petition. *(Hearing will be held approximately 2 working days from date of filing, whenever possible, excluding Mondays, weekends and holidays.)* **If you request an interim variance, you must answer No. 4 on page 1.**

ITEM 4

GOOD CAUSE: The Hearing Board is required to provide public notice of variance hearings, as the public has a right to attend and testify at such hearings. In order for the Hearing Board to hold an Interim, *Ex Parte* Emergency or Emergency Variance hearing without the required public notice, a petitioner must present facts which will support a determination by the Board that "good cause" exists to hear a variance without notifying the public about the variance and providing the public with an opportunity to present evidence concerning the variance.

ITEM 6

Example #1:

Equipment/Activity	Application/Permit No.	RECLAIM Device No.	Date Application/Plan Denied (if relevant)
Tenter frame		D32	
Chrome-plating tank	M99999		
Bake oven	123456		
Create special effects (fog)	N/A	N/A	N/A

[YOU MAY ATTACH ADDITIONAL PAGES IF NECESSARY]

Mfg., sale, distribution, use of non-compliant coating	N/A	N/A	12/10/95
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ITEM 9

a) If you are requesting relief from Rule 401 and the excess opacity during the variance period will reach or exceed 40%, you should also request relief from California Health and Safety Code Section 41701.

b) If you are requesting relief from a permit condition(s), you should also request relief from the rule requiring compliance with conditions of the permit: 202(a), (b) or (c) - Temporary Permit to Operate; 203(b) - Permit to Operate; 2004(f)(1) - RECLAIM Permit; 3002(c) - Title V Permit.

Example #2:

Rule	Explanation
404(a)	tenter frame is vented to damaged air pollution control equipment
2004 (f)(1) [Condition No. 28-2 of Facility P/O No. 099999]	source test cannot be conducted as required until new ESP is installed
1113(c)(2)	petitioner manufactures and sells clear wood finishes with VOCs in excess of 350 grams per liter
401(a) & California H&S Code Section 41701	Opacity will exceed 45%.

ITEM 24

Example #3:

Sample Schedule of Increments of Progress

- Permit application(s) will be submitted to the District by [date].
- Contracts for the purchase of emission control systems will be awarded by [date].
- On-site construction will be completed by [date].

**SUPPLEMENT TO PETITION FOR VARIANCE
ALTERNATIVE OPERATING CONDITION (AOC)**

SOUTH COAST AQMD
CLERK OF THE BOARD

PETITIONER: TORRANCE REFINING COMPANY LLC

CASE NO: 6060-8 **17 MAR 27 P8:15**

FACILITY ID: 181667

FACILITY ADDRESS: 3700 West 190th Street

CITY, STATE, ZIP: Torrance, CA 90504

Petitioner is requesting an Alternative Operating Condition (AOC) which will act as a permit revision to the Title V facility permit. Last Revision issued on January 1, 2017.

1. Are you located within 50 miles of an affected state or Indian reservation? No Yes

State	Indian Reservation/Location

2. List below the SIP-approved or federally enforceable requirements from which you are seeking relief in the form of an AOC.

Device/Application No.	Explanation of Non-compliance	Applicable Rule	Date of Rule
C891 (Flare 65F-3) / AN 584480;	During necessary repairs and maintenance to the Refinery's General Service Flare 65F-4 (Device No. C892) and the Fourth Stage Separator (Device No. C2314) ("FSS"), numerous systems and processes normally connected to the Flare and/or FSS will be disconnected and isolated from the Flare/FSS to allow safe access to workers. Also, mitigation of flaring emissions will require the Refinery to directly vent high purity hydrogen generated from pressure swing absorption (PSA) (Device No. D372), bypassing the flare system. This will result in the equipment listed in the variance petition not venting to Permit-designated air pollution control equipment while that equipment is in "full use," as required by Permit conditions.	202(a)	12-3-2004
C892 (Flare 65F-4) / AN 584481;		203(b)	1-5-1990 (12-3-2004 version pending approval);
C1590 (2C-25 Third Stage Separator Cyclone) / AN 582076;		2004(f)(1);	4-6-2007;
C2314 (2C-26-CY Fourth Stage Separator Cyclone) / AN 582076.		3002(c)(1)	11-5-2010
		(as to Permit Conditions E336.21 and E336.23, and Administrative Permit Conditions E.4 and E.8 (first sentence only))	

Persons with disabilities may request this document in an alternative format by contacting the Clerk of the Board at 909-396-2500 or by e-mail at clerkofboard@aqmd.gov.

If you require disability-related accommodations to facilitate participating in the hearing, contact the Clerk of the Board at least five (5) calendar days prior to the hearing.

[ALL DOCUMENTS FILED WITH CLERK'S OFFICE BECOME PUBLIC RECORD]

EXAMPLE:

Device/Application No.	Explanation of Non-compliance	Applicable Rule	Date of Rule
D1	cannot use compliant printing ink	1130(c)	9-8-95
D17	cannot use compliant coating	1128(c)(5)(A)	2-7-92
D18	cannot test boiler for Rule 1146 CO compliance	1146 3004(a)(4)	5-12-94 8-11-95

3. List proposed AOC(s). Each AOC must contain the elements specified in Rule 518.2(g).

AOC #1 – Petitioner shall be subject to the following Alternative Operating Condition (“AOC”) defining alternative emission and operational requirements during the AOC period.

1. Petitioner shall notify the South Coast Air Quality Management District (District) by telephone (Attn: Inspector Rhonda Laugeson 1.800.CUT.SMOG), at least 2 hours before each of the following events:
 - a. Bypass of the FSS (Device No. C2314) to begin maintenance;
 - b. Removal of Flare 65F-4 (Device No. C892 from service (pilots out));
 - c. Removal of FSS from bypass; and
 - d. Putting Flare 65F-4 back in service (pilots on).
2. As an emissions mitigation measure, during the period of the AOC, Petitioner shall directly release high purity pressure swing adsorption (“PSA”) hydrogen into the atmosphere and shall not direct that PSA hydrogen gas to the flare system. Direct release of PSA hydrogen gas to atmosphere must end no later than the notices provided pursuant to 1.d above.
3. Petitioner shall not bypass the FCCU Regenerator’s Third Stage Separator Cyclone, Electrostatic Precipitators, or Selective Catalyst Reduction (“SCR”) system during the variance/AOC period.
4. Petitioner shall notify the District by telephone (Attn: Inspector Rhonda Laugeson 1.800.CUT.SMOG) if the Refinery receives any confirmed visible emissions or confirmed odor complaints during the variance/AOC period. All such notifications shall be made to the District within 1 hour of each confirmed occurrence or complaint.
5. Petitioner shall notify the District by telephone within 1 hour (Attn: Inspector Rhonda Laugeson 1.800.CUT.SMOG) if opacity exceeds 10% from the 2F-7 main stack during the FSS bypass period.
6. During the FSS bypass period, Petitioner shall not recycle any catalyst fines from the ESPs hoppers into the system.
7. Petitioner shall submit to the District in writing (Attn: Rhonda Laugeson via email rlaugeson@aqmd.gov) the following information within 30 days after achieving final compliance:
 - a. NOx, SOx, CO, and Opacity monitoring results from the CEMS of the 2F-7 main stack during the variance/AOC period;
 - b. Bypass time periods of the FSS; and
 - c. Bypass time periods of Flare 65F-4.
8. Petitioner shall maintain in full use and operation the existing CEMS that measures emissions

from the 2F-7 Main Stack.

9. Petitioner shall notify the District by calling 1-800-CUT-SMOG (Attn: Rhonda Laugeson) that final compliance has been achieved and the variance/AOC period is complete.
10. Petitioner shall notify the Clerk of the Board in writing within five days of achieving final compliance.
11. In the event U.S. EPA objects to this AOC within the 45 day review period or in response to a timely citizen petition, this AOC shall be ineffective to protect Petitioner from U.S. EPA or citizen enforcement under the federal Clean Air Act for any federally enforceable requirement.

4. Explain how operation under the AOC will not result in the source discharging such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or to the public, or which cause, or have a natural tendency to cause, injury or damage to business or property

TORC does not anticipate that continued Refinery operation during the repair and maintenance of Flare 65F-4 and the FSS proposed under the AOC will cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or could endanger the comfort, repose, health, or safety of any such persons or the public, or cause, or have a natural tendency to cause, injury, or damage to business or property. **TORC does not anticipate any nuisance, excess emissions or opacity related to the FSS and/or isolation and maintenance of Flare 65F-4 during the variance/AOC period.** Odorous substances are not anticipated to be released in any quantity sufficient for it to be detectable to the public. Indeed, TORC must be allowed to continue operations during the variance/AOC period in order to mitigate the risk of an eventual breakdown of Flare 65F-4 and/or the FSS due to not being able to perform timely maintenance, which would cause substantial excess emissions and opacity.

5. Explain how the AOC will not violate any NSPS, NESHAP or other standard promulgated by the U.S. EPA under Sections 111 or 112 of the Clean Air Act, or any District rule that substitutes for such requirements, any standard or requirement under Titles IV or VI of the CAA or any requirements where an AOC cannot be granted.

As explained in the variance petition, **TORC does not expect any excess emissions during the Variance/AOC period.** TORC proposes to continue Refinery operations during the maintenance of Flare 65F-4 and the FSS in order to mitigate the risk of an eventual breakdown of Flare 65F-4 and/or the FSS due to not being able to perform timely maintenance, which would cause substantial excess emissions and opacity. Timely maintenance of Flare 65F-4 and the FSS will also help ensure continued compliance with the NSPS, NESHAPS and other applicable federal laws. TORC does not expect that there will be any exceedance of applicable emissions limits or opacity exceedances during the variance/AOC period.

The FCCU and Flare 65F-4 are subject to 40 CFR Part 60, Subpart A, which requires that TORC maintain and operate the facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. The purpose of this AOC is to allow the continued operation of the FCCU and associated process units during the ongoing maintenance of Flare 65F-4 and the FSS. Allowing continued operation will avoid the excess emissions associated with shutdown and restart of the FCCU and its associated process equipment. Accordingly, TORC will remain in compliance with 40 CFR Part 60, Subpart A and other applicable federal regulations throughout the AOC period.

The FCCU and Flare 65F-4 are also subject to 40 CFR Part 60, Subpart J. It is not expected that the FCCU would exceed its Subpart J limits, as the Refinery fuel gas that it will be combusting will continue

to be compliant fuel. Subpart J PM limits will not be exceeded because the ESPs will be fully functional and remain in operation, and the CO limit will not be exceeded because there will not be any incomplete combustion. Flare 65F-3 will remain in service while Flare 65F-4 is down, and the NSPS J requirements will still be met. Accordingly, TORC will remain in compliance with Subpart J throughout the AOC period.

Additionally, the FCCU is subject to the requirements of 40 CFR 63 Subpart UUU. However, the FCCU is not expected to exceed the applicable emission limits under 40 CFR 63 Subpart UUU. TORC complies with Subpart UUU PM requirements by meeting the Subpart UUU opacity requirements, and also meeting the Subpart UUU requirements for CO. Accordingly, TORC will remain in compliance with this Subpart throughout the AOC period.

6. Explain how the excess emissions resulting from operation pursuant to the AOC would not, by themselves, cause an exceedance of a National Ambient Air Quality Standard

As discussed in the variance petition, **TORC does not expect any excess emissions during the variance/AOC period.** As explained in the variance petition, **TORC does not expect any excess emissions during the Variance/AOC period.** TORC proposes to continue Refinery operations during the maintenance of Flare 65F-4 and the FSS in order to mitigate the risk of an eventual breakdown of Flare 65F-4 and/or the FSS due to not being able to perform timely maintenance, which would cause substantial excess emissions and opacity. Timely maintenance of Flare 65F-4 and the FSS will also help ensure continued compliance with the NAAQS. During the variance/AOC period, the ESPs and the TSS will be fully functional and operational. Therefore, PM emissions generated while the FSS is shut down will be fully captured and controlled by these air pollution control devices. Flare 65F-3 also will remain in operation during the variance petition, and any emergency or turnaround flare gas will be controlled by this air pollution control device. Thus, continued operation of the Refinery pursuant to the AOC during the Flare and FSS maintenance activities will not result in an exceedance of any National Ambient Air Quality Standard.

7. Did the violation(s) result from a breakdown of technology? If Yes, explain below. If No, skip to No. 8.

- (A). Explain how the breakdown could not have been prevented through careful planning or design.

N/A

- (B). Explain how the breakdown could not reasonably have been foreseen and avoided.

N/A

- (C). Explain how at all times the equipment, including air pollution control equipment, or processes were maintained and operated in a manner consistent with good practice for minimizing emissions.

N/A

- (D). Explain how repairs were or will be made in an expeditious fashion using off-shift labor and overtime, to the extent practicable, to ensure that such repairs are made as expeditiously as practicable

N/A

- (E). Explain how the breakdown is not part of a recurring pattern indicative of inadequate design, operation, or maintenance.

N/A

8. If the violation(s) will occur during startup or shutdown, explain how the frequency and duration of operation in startup or shutdown mode will be minimized to the maximum extent feasible.

Non-compliance will occur during the downtime of Flare 65F-4 and the FSS for maintenance, since a number of units within the Refinery will remain in operation, including units normally venting to these control devices. The Refinery will work diligently to complete the maintenance of the Flare and FSS as quickly and as safely as possible.

If the requested AOC is not granted, TORC will have to either forego the required Flare 65F-4 and FSS maintenance, which could risk a serious or catastrophic failure of either or both of those units (and resulting cascading failures) that would cause significant excess emissions, or shut down the FCCU and related process units in order to maintain strict compliance and conduct the maintenance while the entire refinery is shut down. This would cause flaring and excess emissions during the shutdown and eventual startup of all of these units. In addition, without the ability to isolate and shutdown Flare 65F-4, installing piping and monitoring safely to meet the federal standards of the RSR could not occur and result in future non-compliance with the federal regulations.

9. Prepare an Excess Emission Calculation Attachment (Attachment I) for each device, or group of similar devices, that is or will be operating in non-compliance. **You should check with the Clerk of the Board prior to filing this petition to determine if there are any credits available in the AOC SIP allowance bank for the relevant pollutants. If no credits are available, you must demonstrate mitigation to zero excess emissions**
10. Identify below any Emission Reduction Credit (ERC) certificates that you will voluntarily relinquish during the term of the AOC in the event that the SIP allowance bank is depleted and is unavailable for use.

ERC Certificate Information

ERC No.	Pollutant	Pounds/Day	Pounds/Month (30 x lbs/day)
N/A	N/A	N/A	N/A

***If there are no AOC credits for the relevant pollutant(s) available in the SIP allowance bank, skip to No. 13.**

11. Explain how any emissions resulting from AOC and all other AOCs in effect will not exceed AOC credits held in the AOC Credit Bank.

N/A.

12. Based on the required attachments and calculations, summarize (in pounds) [1] the combined, monthly excess emissions, [2] mitigating emission reductions, and [3], ERC and/or emissions you are requesting to be withdrawn from the AOC SIP allowance bank, Charts 12(A) and 12 (B).

(A)

Pollutant	Month/Year (Example: 6/98)	[1] Excess Emissions From Attachments	[2] Mitigating Emission Reductions from Attachments	[3] ERC Emissions Relinquished
N/A				

(B) Using previous Chart, calculate total emissions required from bank, if available.

Pollutant	Emissions (pounds) Required from Bank (+1-2-3)
N/A	N/A

13. Prepare a Mitigation Measure Emission Calculation Attachment (Attachment II) for emission reductions that are feasible, to the maximum extent possible, during the period of the AOC; or explain why mitigation measures are not feasible.

TORC does not anticipate any excess emissions during the Variance and AOC period. Nevertheless, during the Variance and AOC period, the Refinery will make reasonable efforts to reduce emissions to the maximum extent feasible by working to complete the maintenance of Flare 65F-4 and the FSS as quickly as possible and safely return to normal operations as quickly as possible. In addition, TORC plans to further mitigate flaring and flaring emissions by safely venting high purity hydrogen generated from pressure swing adsorption ("PSA"). This will have the effect of significantly reducing the duration and intensity of flaring from the remaining operational 65F-3 flare while not adding any harmful pollutants to the atmosphere.

I certify under penalty of law that I am the responsible official, or that official's designee, for this facility as defined in AQMD Regulation XXX and that based on information and belief formed after reasonable inquiry, the statements and information in this document and in all attachments are true, accurate and complete.

Dated: 3/24/17



Signature of Responsible Official

Steve Steach

Print Name of Responsible Official

Refinery Manager

Title of Responsible Official

Telephone: (310) 212-4500

ATTACHMENT I
EXCESS EMISSION CALCULATION

PETITIONER: TORRANCE REFINERY CORPORATION LLC

CASE NO: 6060-8

FACILITY ID: 181667

Device/Application No.(s) D151; C164; D2305; D2278

A. List all SIP-approved, federally-enforceable, emission limits, permit conditions, and other requirements for which an AOC is sought:

Requirement Violated	Rule Violated	Rule Date
<p>During necessary repairs and maintenance to the Refinery's General Service Flare 65F-4 (Device No. C892) and the Fourth Stage Separator (Device No. C2314) ("FSS"), numerous systems and processes normally connected to the Flare and/or FSS will be disconnected and isolated from the Flare/FSS to allow safe access to workers. Also, mitigation of flaring emissions will require the Refinery to directly vent high purity hydrogen generated from pressure swing absorption (Device No. D372), bypassing the flare system. This will result in the equipment listed in the variance petition not venting to Permit-designated air pollution control equipment while that equipment is in "full use," as required by Permit conditions.</p>	<p>202(a), 203(b), 2004(f)(1) & 3002(c)(1) (as to Permit Conditions E336.21 and E336.23, and Administrative Permit Conditions E.4 and E.8 (first sentence only))</p>	<p>12-3-2004; 1-5-1990 (12-3-2004 version pending approval); 4-6-2007; 11-5-2010</p>

B. Explain below how you can reduce emissions in excess of the federally enforceable emission limits from the affected devices to the maximum extent feasible during the period of the AOC.

TORC does not anticipate any excess opacity or excess emissions during the Short Variance and AOC period. Nevertheless, during the Short Variance and AOC period, the Refinery will reduce emissions to the maximum extent feasible by working to complete the maintenance of Flare 65F-4 and the FSS as quickly as possible and safely return to normal operations as quickly as possible. The Refinery will dedicate the needed on-site personnel and resources to achieve this as rapidly and safely as possible.

Also, during the variance period, the Refinery plans to safely vent high purity PSA hydrogen, which will have the effect of significantly reducing the duration and intensity of flaring during the unit turnaround periods from the remaining operational 65F-3 flare while not adding any harmful pollutants to the atmosphere.

TORC has attached proposed Short Variance and AOC Conditions as **Exhibit 5**.

- C. List the emission limits, activity levels and/or operating conditions that you propose to comply with in lieu of the AQMD requirement(s).

The applicable conditions from the Supplement To Petition For Variance AOC #1, Question No. 3, are repeated here.

2. As an emissions mitigation measure, during the period of the AOC, Petitioner shall directly release high purity pressure swing adsorption ("PSA") hydrogen into the atmosphere and shall not direct that PSA hydrogen gas to the flare system. Direct release of PSA hydrogen gas to atmosphere must end no later than the notices provided pursuant to 1.d above.
3. Petitioner shall not bypass the FCCU Regenerator's Third Stage Separator Cyclone, Electrostatic Precipitators, or Selective Catalyst Reduction ("SCR") system during the variance/AOC period.
6. During the FSS bypass period, Petitioner shall not recycle any catalyst fines from the ESPs hoppers into the system.

- D. Attach calculations of monthly excess emissions, done in accordance with Rule 518.2 (h)(1), from equipment subject to the AOC and summarize results here:

Pollutant	Month/Yr	Monthly Emissions (Pound)		
		[1] Based on Compliance with Rules, Existing Permit Conditions and Projected Activity Levels [518.2(h)(1)(A)]	[2] Based on Proposed Operating Conditions and Activity Levels [518.2(h)(1)(B)]	[3]* Excess Emissions (Difference)
N/A				

*Column 1 minus Column 2 = Column 3

If your proposed emission limits, operating conditions or activity levels will vary by calendar month, provide numbers for each month from the first day of non-compliance, or the day the AOC petition is submitted, whichever is later, until the last day of non-compliance.

- E. Propose below the procedures you will use to monitor, record, and report excess emissions.

The applicable conditions from the Supplement To Petition For Variance AOC #1, Question No. 3, are repeated here.

1. Petitioner shall notify the South Coast Air Quality Management District (District) by telephone (Attn: Inspector Rhonda Laugeson 1.800.CUT.SMOG), at least 2 hours before each of the following events:
 - a. Bypass of the FSS (Device No. C2314) to begin maintenance;
 - b. Removal of Flare 65F-4 (Device No. C892 from service (pilots out));
 - c. Removal of FSS from bypass; and
 - d. Putting Flare 65F-4 back in service (pilots on).

4. Petitioner shall notify the District by telephone (Attn: Inspector Rhonda Laugeson 1.800.CUT.SMOG) if the Refinery receives any confirmed visible emissions or confirmed odor complaints during the variance/AOC period. All such notifications shall be made to the District within 1 hour of each confirmed occurrence or complaint.
7. Petitioner shall submit to the District in writing (Attn: Rhonda Laugeson via email rlaugeson@aqmd.gov) the following information in writing within 30 days after achieving final compliance:
 - a. NOx, SOx, CO, and Opacity monitoring results from the CEMS of the 2F-7 main stack during the variance/AOC period;
 - b. Bypass time periods of the FSS; and
 - c. Bypass time periods of Flare 65F-4.
8. Petitioner shall maintain in full use and operation the existing CEMS that measures emissions from the 2F-7 Main Stack.
9. Petitioner shall notify the District by calling 1-800-CUT-SMOG (Attn: Rhonda Laugeson) that final compliance has been achieved and the variance/AOC period is complete.
10. Petitioner shall notify the Clerk of the Board in writing within five days of achieving final compliance.
11. In the event U.S. EPA objects to this AOC within the 45 day review period or in response to a timely citizen petition, this AOC shall be ineffective to protect Petitioner from U.S. EPA or citizen enforcement under the federal Clean Air Act for any federally enforceable requirement.

During the variance/AOC period, compliance with the applicable District Rules and the Title V Permit limits will continued to be monitored and quantified consistent with and using the FCCU's existing certified-CEMS and COMS on the FCCU Main Stack.

ATTACHMENT II

MITIGATION MEASURE EMISSION CALCULATION

PETITIONER: TORRANCE REFINERY CORPORATION

CASE NO: 6060-2

FACILITY ID: 181667

- A. Describe proposed mitigation measures that reduce emissions to maximum extent possible from equipment not in violation of an applicable requirement and the affected device/application no.(s):

TORC does not anticipate any excess opacity or excess emissions during the Short Variance and AOC period. Nevertheless, during the Short Variance and AOC period, the Refinery will reduce emissions to the maximum extent feasible by working to complete the maintenance of Flare 65F-4 and the FSS as quickly as possible and safely return to normal operations as quickly as possible. The Refinery will dedicate the needed on-site personnel and resources to achieve this as rapidly and safely as possible.

Also, during the variance period, the Refinery plans to safely vent high purity PSA hydrogen, which will have the effect of significantly reducing the duration and intensity of flaring from the remaining operational 65F-3 flare during unit turnaround periods while not adding any harmful pollutants to the atmosphere.

TORC has attached proposed Short Variance and AOC Conditions as **Exhibit 5**.

- B. List proposed operating conditions and activity levels for each of the above affected activities or device/application no(s).

N/A.

- C. Attach calculations of monthly emission mitigations, done in accordance with Rule 518.2 (h)(2)(D), from equipment not in violation of an applicable requirement and summarize results here:

Pollutant	Month/Yr	Monthly Emissions (Pound)		
		[1] Baseline Emission Rate	[2] Post Reduction Emission Rate X Activity Level	[3]* Intra-Facility Emission Reduction (Difference)
N/A	N/A	N/A	N/A	N/A

*Column 1 minus Column 2 = Column 3

If emissions reductions you are committing to will vary by calendar month, provide numbers for each month from the first day of non-compliance, or the day the AOC petition is submitted, whichever is later, until the last day of non-compliance.

- D. Propose below the procedures you will use to monitor, record, and report mitigating emission reductions.

The applicable conditions from the Supplement To Petition For Variance AOC #1, Question No. 3, are repeated here.

1. Petitioner shall notify the South Coast Air Quality Management District (District) by telephone (Attn: Inspector Rhonda Laugeson 1.800.CUT.SMOG), at least 1 hour before each of the following events:
 - a. Bypass of the FSS (Device No. C2314) to begin maintenance;
 - b. Removal of Flare 65F-4 (Device No. C892 from service (pilots out));
 - c. Removal of FSS from bypass; and
 - d. Putting Flare 65F-4 back in service (pilots on).
4. Petitioner shall notify the District by telephone (Attn: Inspector Rhonda Laugeson 1.800.CUT.SMOG) if the Refinery receives any confirmed visible emissions or confirmed odor complaints during the variance/AOC period. All such notifications shall be made to the District within 1 hour of each confirmed occurrence or complaint.
7. Petitioner shall submit to the District in writing (Attn: Rhonda Laugeson via email rlaugeson@aqmd.gov) the following information in writing within 30 days after achieving final compliance:
 - a. NOx, SOx, CO, and Opacity monitoring results from the CEMS of the 2F-7 main stack during the variance/AOC period;
 - b. Bypass time periods of the FSS; and
 - c. Bypass time periods of Flare 65F-4.
8. Petitioner shall maintain in full use and operation the existing CEMS that measures emissions from the 2F-7 Main Stack.
9. Petitioner shall notify the District by calling 1-800-CUT-SMOG (Attn: Rhonda Laugeson) that final compliance has been achieved and the variance/AOC period is complete.
10. Petitioner shall notify the Clerk of the Board in writing within five days of achieving final compliance.
11. In the event U.S. EPA objects to this AOC within the 45 day review period or in response to a timely citizen petition, this AOC shall be ineffective to protect Petitioner from U.S. EPA or citizen enforcement under the federal Clean Air Act for any federally enforceable requirement.

During the variance/AOC period, compliance with the applicable District Rules and the Title V Permit limits will continued to be monitored and quantified consistent with and using the FCCU's existing certified-CEMS and COMS on the FCCU Main Stack.

(E: HB:Petitions:AOC Supplement: Revised October 5, 2007)

Exhibit 1
Torrance Refining Company, LLC Variance and AOC Case No. 6060-8 (Facility ID – 181667)

Title V Permit Condition(s) For Which Relief Is Sought	Permit Process(es) For Which Relief Is Sought	Permit System(s) For Which Relief Is Sought	Permit Equipment For Which Relief Is Sought
Title V Administrative Conditions			
E.4	All Processes listed in this table	All Systems listed in this table	All Equipment listed in this table
E.8	3	1	D151
Title V Process, System, and Equipment Specific Conditions, Section D			
S15.1	1 2 3 4 5 6 7 8 9 11 12 13 17 18 19	1, 2, 3, 4, 7 1, 2, 4, 5 1, 5, 7 1, 3, 5 1, 2 1, 2 1 1, 2, 3, 4, 6 1, 2, 5 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 1, 2, 3, 4 1, 2, 3, 4 5, 8 1 3	All Equipment listed in the Processes and Systems for this condition
S15.15	2 6 7 9 16	9 6 3 6 3	All Equipment listed in the Processes and Systems for this condition
E336.21	N/A	N/A	D1194
E336.23	N/A	N/A	D653, D654, D655, D656
District Rules For Which Relief Is Sought			
202(a), 203(b), 2004(f)(1), and 3002(c)(1)	All Processes, Systems, and Equipment listed in the this table because the permit conditions in this table will be violated		

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: CRUDE DISTILLATION UNIT					P13.1
System 1: CRUDE ATMOSPHERIC DISTILLATION					S13.2, S15.1, S15.2, S15.10
COLUMN, ATMOSPHERIC CRUDE DISTILLATION, 1C-1, CRUDE OIL, HEIGHT: 159 FT ; DIAMETER: 21 FT 6 IN A/N: 582019	D1				E336.12
COLUMN, STRIPPER, 1C-2A/B/C, 3 SECTIONS WITH A/N: 582019 COLUMN, STRIPPER, 1C-2A, NAPHTHA SECTION, TOP SECTION, IDLE, HEIGHT: 81 FT ; DIAMETER: 7 FT COLUMN, STRIPPER, 1C-2B, KEROSENE SECTION, MIDDLE SECTION, HEIGHT: 27 FT 6 IN; DIAMETER: 7 FT COLUMN, STRIPPER, 1C-2C, LIGHT GAS OIL SECTION, BOTTOM SECTION, HEIGHT: 29 FT ; DIAMETER: 7 FT	D2				
TANK, FLASH, 1C-7, CRUDE OIL, HEIGHT: 30 FT ; DIAMETER: 12 FT A/N: 582019	D5				
VESSEL, RECEIVER, 1C-4, CRUDE COLUMN OVERHEAD, HEIGHT: 30 FT ; DIAMETER: 10 FT A/N: 582019	D23				

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit
 (4) Denotes BACT emission limit
 (5) (5A) (5B) Denotes command and control emission limit
 (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (9) See App B for Emission Limits
 (10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 1: CRUDE DISTILLATION UNIT					P13.1
FILTER, 1J-19, WASH WATER, CRUDE COLUMN OVERHEAD (1C-4) ACCUMULATOR, VESSEL WITH STAINLESS STEEL RESTRAINER BASKET A/N: 582019	D2194				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582019	D1788			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 2: CRUDE VACUUM DISTILLATION					S13.2, S15.1, S15.2
COLUMN, VACUUM DISTILLATION, 1C-3, HEIGHT: 54 FT ; DIAMETER: 42 FT A/N: 581985	D3				
VESSEL, 1C-19, VACUUM CONDENSATE RECEIVER, HEIGHT: 12 FT ; DIAMETER: 6 FT A/N: 581985	D6				
POT, BLOWNDOWN, 1C-8, HEIGHT: 6 FT ; DIAMETER: 2 FT 6 IN A/N: 581985	D35				
EJECTOR, 1H-9A/B, VACUUM TOWER OVERHEAD, 1ST STAGE, 2 TOTAL A/N: 581985	D2137				H23.11
EJECTOR, 1H-10, VACUUM TOWER OVERHEAD, 2ND STAGE A/N: 581985	D2138				H23.11
EJECTOR, 1H-11, VACUUM TOWER OVERHEAD, 3RD STAGE A/N: 581985	D2139				H23.11

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit
 (4) Denotes BACT emission limit
 (5) (5A) (5B) Denotes command and control emission limit
 (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (9) See App B for Emission Limits
 (10) See section J for NESHAP/MACT requirements
- ** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: CRUDE DISTILLATION UNIT					P13.1
EJECTOR, 1H-12, VACUUM TOWER OVERHEAD, 4TH STAGE A/N: 581985	D2140				H23.11
EJECTOR, 1H-13A/B, VACUUM TOWER OVERHEAD, 1ST STAGE, 2 TOTAL A/N: 581985	D2141				H23.11
EJECTOR, 1H-14, VACUUM TOWER OVERHEAD, 2ND STAGE A/N: 581985	D2142				H23.11
EJECTOR, 1H-15, VACUUM TOWER OVERHEAD, 3RD STAGE A/N: 581985	D2143				H23.11
EJECTOR, 1H-16, VACUUM TOWER OVERHEAD, 4TH STAGE A/N: 581985	D2144				H23.11
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581985	D1937			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 3: DESALTER TAIL WATER HANDLING					S13.9, S15.1
TANK, SEPARATOR, 72D-10, DESALTER EFFLUENT, HEIGHT: 24 FT ; DIAMETER: 24 FT A/N: 581929	D1250			SOX: 500 PPMV (5) [RULE 407, 4-2-1982]; VOC: 500 PPMV (5) [RULE 1176, 9-13-1996]	E336.9, H23.30, K171.9
TANK, SEPARATOR, 72D-11, DESALTER OIL, HEIGHT: 8 FT ; DIAMETER: 3 FT A/N: 581929	D2145			SOX: 500 PPMV (5) [RULE 407, 4-2-1982]; VOC: 500 PPMV (5) [RULE 1176, 9-13-1996]	E336.9, H23.30, K171.9
DRAIN SYSTEM COMPONENT A/N: 581929	D2255			HAP: (10) [40CFR 61 Subpart FF, #1, 12-4-2003; 40CFR 63 Subpart CC, #4, 6-23-2003]	H23.24

- * (1) (1A) (1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 1: CRUDE DISTILLATION UNIT					P13.1
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581929	D2256			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	
System 4: CRUDE UNIT FEED DESALTER					S13.2, S15.1, S31.4
TANK, SURGE, 1C-5, WASH (DESALTER) WATER, HEIGHT: 17 FT 6 IN; DIAMETER: 7 FT A/N: 581930	D4				
VESSEL, DESALTER, 1ST STAGE, 1C-6C, CRUDE OIL, WITH WATER&MUDWASH DISTRIBUTION&3 ELECTRICAL GRIDS, IN PARALLEL WITH 1C-6D & IN SERIES WITH 1C-6A, LENGTH: 85 FT ; DIAMETER: 13 FT A/N: 581930	D2251			SOX: 500 PPMV (5) [RULE 407, 4-2-1982]	E336.9
VESSEL, DESALTER, 2ND STAGE, 1C-6A, CRUDE OIL, WITH FIVE SEDIMENT ELIMINATORS, IN PARALLEL WITH 1C-6B & IN SERIES WITH 1C-6C, HEIGHT: 86 FT ; DIAMETER: 12 FT A/N: 581930	D21			SOX: 500 PPMV (5) [RULE 407, 4-2-1982]	E336.9
VESSEL, DESALTER, 1ST STAGE, 1C-6D, CRUDE OIL, WITH WATER&MUDWASH DISTRIBUTION&3 ELECTRICAL GRIDS, IN PARALLEL WITH 1C-6C & IN SERIES WITH 1C-6B, LENGTH: 85 FT ; DIAMETER: 13 FT A/N: 581930	D2252			SOX: 500 PPMV (5) [RULE 407, 4-2-1982]	E336.9

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See section J for NESHAP/MACT requirements
- ** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: CRUDE DISTILLATION UNIT					P13.1
VESSEL, DESALTER, 2ND STAGE, 1C-6B, CRUDE OIL, WITH FIVE SEDIMENT ELIMINATORS, IN PARALLEL WITH 1C-6A & IN SERIES WITH 1C-6D, HEIGHT: 86 FT ; DIAMETER: 12 FT A/N: 581930	D22			SOX: 500 PPMV (5) [RULE 407, 4-2-1982]	E336.9
DRAIN SYSTEM COMPONENT A/N: 581930	D2253			HAP: (10) [40CFR 61 Subpart FF, #1, 12-4-2003; 40CFR 63 Subpart CC, #4, 6-23-2003]	H23.24
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581930	D2254			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.24
System 6: CRUDE HEATING SYSTEM					
HEATER, ATMOSPHERIC DISTILLATION COLUMN CHARGE, 1F-1, NATURAL GAS, REFINERY GAS, WITH LOW NOX BURNER, 457 MMBTU/HR WITH BURNER, NATURAL GAS, REFINERY GAS, WITH LOW NOX BURNER, 60 TOTAL; 457 MMBTU/HR A/N: 582068	D913	C916 S2425	NOX: MAJOR SOURCE**; SOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B61.3, D90.12, D328.1, E193.16, E448.3, H23.13
STACK, E & W, HEATER 1F-1 BYPASS STACKS, LOCATED UPSTREAM OF NH3 INJECTION GRIDS & SCR, NORMALLY CLOSED, EQUIPPED WITH A STACK DAMPER POSITION MONITOR, 2 TOTAL A/N: 582068	S2425	D913			E448.3

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 1: CRUDE DISTILLATION UNIT					P13.1
HEATER, VACUUM DISTILLATION COLUMN CHARGE, 1F-2, NATURAL GAS, REFINERY GAS, WITH LOW NOX BURNER, 161 MMBTU/HR WITH A/N: 582069 BURNER, NATURAL GAS, REFINERY GAS, WITH LOW NOX BURNER, 40 TOTAL; 161 MMBTU/HR	D914	C916 S2426	NOX: MAJOR SOURCE**; SOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B61.3, D90.12, D328.1, E193.16, E448.3, H23.13
STACK, E & W, HEATER 1F-2 BYPASS STACKS, LOCATED UPSTREAM OF NH3 INJECTION GRIDS & SCR, NORMALLY CLOSED, EQUIPPED WITH A STACK DAMPER POSITION MONITOR, 2 TOTAL A/N: 582069	S2426	D914			E448.3
SELECTIVE CATALYTIC REDUCTION, WITH FIXED BED REACTOR AND HONEYCOMB TYPE CATALYST BED WITH A/N: 581896 AMMONIA INJECTION	C916	D913 D914 S1731		NH3: 20 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10-1996]	D12.2, D12.8, D28.11, E71.7
STACK, MAIN STACK, COMMON TO HEATERS 1F-1 & 1F-2 A/N: 582069	S1731	C916			
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582069	D1789			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 7: FUEL GAS FILTER SEPARATORS					S13.2, S15.1

- * (1) (1A) (1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 1: CRUDE DISTILLATION UNIT					P13.1
FILTER, SEPARATOR, 1J-2, REFINERY FUEL GAS, VESSEL TYPE, WITH A LOWER BARREL FOR STORAGE OF THE REMOVED LIQUID, SERVES HEATER 1F-1 A/N: 582161	D2257				K171.11
FILTER, SEPARATOR, 1J-3, REFINERY FUEL GAS, VESSEL TYPE, WITH A LOWER BARREL FOR STORAGE OF THE REMOVED LIQUID, SERVES HEATERS 1F-1&1F-2 A/N: 582161	D2258				K171.11
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582161	D2259			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 8: ANHYDROUS AMMONIA STORAGE AND VAPORIZATION					
STORAGE TANK, PRESSURIZED, 1C-105, ANHYDROUS AMMONIA, WITH PRV VENT TO ATMOSPHERE SET TO AT LEAST 265 PSIG, 1000 GALS; DIAMETER: 3 FT 5.2 IN; LENGTH: 12 FT 11 IN WITH A/N: 581952 EVAPORATOR, 1E-36, AMMONIA, ELECTRIC HEATED	D2336				E71.12, K67.13
Process 2: COKING AND RESIDUAL CONDITIONING					P13.1
System 1: NORTH DELAYED COKING UNIT					S1.2, S13.2, S15.1, S15.7
DRUM, 21C-1, COKE, HEIGHT: 59 FT ; DIAMETER: 18 FT 6 IN A/N: 584431	D57			HAP: (10) [40CFR 63 Subpart CC, #2, 6-23-2003]; PM: (9) [RULE 405, 2-7-1986]	H23.41

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See section J for NESHAP/MACT requirements

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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 2: COKING AND RESIDUAL CONDITIONING					P13.1
DRUM, 21C-2, COKE, HEIGHT: 59 FT ; DIAMETER: 18 FT 6 IN A/N: 584431	D58			HAP: (10) [40CFR 63 Subpart CC, #2, 6-23-2003]; PM: (9) [RULE 405, 2-7-1986]	H23.41
DRUM, 21C-3, COKE, HEIGHT: 59 FT ; DIAMETER: 18 FT 6 IN A/N: 584431	D59			HAP: (10) [40CFR 63 Subpart CC, #2, 6-23-2003]; PM: (9) [RULE 405, 2-7-1986]	H23.41
DRUM, 21C-4, COKE, HEIGHT: 59 FT ; DIAMETER: 18 FT 6 IN A/N: 584431	D60			HAP: (10) [40CFR 63 Subpart CC, #2, 6-23-2003]; PM: (9) [RULE 405, 2-7-1986]	H23.41
DRUM, 21C-5, COKE, HEIGHT: 59 FT ; DIAMETER: 18 FT 6 IN A/N: 584431	D61			HAP: (10) [40CFR 63 Subpart CC, #2, 6-23-2003]; PM: (9) [RULE 405, 2-7-1986]	H23.41
DRUM, 21C-6, COKE, HEIGHT: 59 FT ; DIAMETER: 18 FT 6 IN A/N: 584431	D62			HAP: (10) [40CFR 63 Subpart CC, #2, 6-23-2003]; PM: (9) [RULE 405, 2-7-1986]	H23.41
TOWER, BUBBLE, 21C-11, HEIGHT: 97 FT 3 IN; DIAMETER: 12 FT 6 IN A/N: 584431	D63				
COLUMN, STRIPPER, 21C-12A, LIGHT GAS OIL A/N: 584431	D2440				
VESSEL, STABILIZER, 21C-13, HEIGHT: 42 FT ; DIAMETER: 4 FT A/N: 584431	D64				
ACCUMULATOR, 21C-14, STABILIZER OVERHEAD REFLUX, LENGTH: 29 FT 8 IN; DIAMETER: 4 FT A/N: 584431	D65				
ACCUMULATOR, 21C-15, BUBBLE TOWER REFLUX, LENGTH: 40 FT ; DIAMETER: 8 FT A/N: 584431	D66				

- | | |
|---|---|
| <p>* (1) (1A) (1B) Denotes RECLAIM emission factor
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 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits</p> | <p>(2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See section J for NESHAP/MACT requirements</p> |
|---|---|

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Process 2: COKING AND RESIDUAL CONDITIONING					P13.1
TANK, FIXED ROOF, 21D-5, OILY SLUDGE, SKIMMING, WITH VAPOR RECOVERY SYSTEM, HEIGHT: 26 FT ; DIAMETER: 17 FT A/N: 584431	D68				
VESSEL, 21C-17, GLAND OIL, HEIGHT: 11 FT 6 IN; DIAMETER: 5 FT. A/N: 584431	D71			HAP: (10) [40CFR 63 Subpart CC, #2, 6-23-2003]	
TANK, FIXED ROOF, 21D-11, SLUDGE, WITH VAPOR RECOVERY SYSTEM, LENGTH: 17 FT ; DIAMETER: 33 FT A/N: 584431	D2538				E336.24
FILTER, 21J-25A, SLUDGE STRAINER, HEIGHT: 4 FT 6 IN; DIAMETER: 1 FT A/N: 584431	D2563				
FILTER, 21J-25B, SLUDGE STRAINER, HEIGHT: 4 FT 6 IN; DIAMETER: 1 FT A/N: 584431	D2564				
FILTER, 21J-44A, SUCTION STRAINER, HEIGHT: 6 FT ; DIAMETER: 3 FT A/N: 584431	D2565				
FILTER, 21J-44B, SUCTION STRAINER, HEIGHT: 6 FT ; DIAMETER: 3 FT A/N: 584431	D2566				

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- (3) Denotes RECLAIM concentration limit
- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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Process 2: COKING AND RESIDUAL CONDITIONING					P13.1
FILTER, 21J-50A, MAIN SUCTION STRAINER, HEIGHT: 3 FT 8 IN; DIAMETER: 2 FT A/N: 584431	D2567				
FILTER, 21J-50B, MAIN SUCTION STRAINER, HEIGHT: 3 FT 8 IN; DIAMETER: 2 FT A/N: 584431	D2568				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 584431	D1790			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 2: SOUTH DELAYED COKING UNIT					S1.2, S13.2, S15.1, S15.7
DRUM, 22C-7, COKE, HEIGHT: 59 FT 1 IN; DIAMETER: 18 FT A/N: 584432	D86			HAP: (10) [40CFR 63 Subpart CC, #2, 6-23-2003]; PM: (9) [RULE 405, 2-7-1986]	H23.41
DRUM, 22C-8, COKE, HEIGHT: 59 FT 1 IN; DIAMETER: 18 FT A/N: 584432	D87			HAP: (10) [40CFR 63 Subpart CC, #2, 6-23-2003]; PM: (9) [RULE 405, 2-7-1986]	H23.41
DRUM, 22C-9, COKE, HEIGHT: 59 FT ; DIAMETER: 18 FT 6 IN A/N: 584432	D88			HAP: (10) [40CFR 63 Subpart CC, #2, 6-23-2003]; PM: (9) [RULE 405, 2-7-1986]	H23.41
DRUM, 22C-10, COKE, HEIGHT: 59 FT ; DIAMETER: 18 FT 6 IN A/N: 584432	D89			HAP: (10) [40CFR 63 Subpart CC, #2, 6-23-2003]; PM: (9) [RULE 405, 2-7-1986]	H23.41
DRUM, 22C-11, COKE, HEIGHT: 59 FT ; DIAMETER: 18 FT 6 IN A/N: 584432	D90			HAP: (10) [40CFR 63 Subpart CC, #2, 6-23-2003]; PM: (9) [RULE 405, 2-7-1986]	H23.41
DRUM, 22C-12, COKE, HEIGHT: 59 FT ; DIAMETER: 18 FT 6 IN A/N: 584432	D91			HAP: (10) [40CFR 63 Subpart CC, #2, 6-23-2003]; PM: (9) [RULE 405, 2-7-1986]	H23.41

- * (1) (1A) (1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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Process 2: COKING AND RESIDUAL CONDITIONING					P13.1
TOWER, BUBBLE, 22C-1, HEIGHT: 100 FT ; DIAMETER: 11 FT A/N: 584432	D92				
TOWER, STABILIZER, 22C-3, HEIGHT: 75 FT ; DIAMETER: 5 FT 6 IN A/N: 584432	D93				
COLUMN, STRIPPER, 22C-2A, HEIGHT: 58 FT ; DIAMETER: 3 FT 6 IN A/N: 584432	D2441				
ACCUMULATOR, 22C-5, STABILIZER OVERHEAD, LENGTH: 11 FT 8 IN; DIAMETER: 4 FT A/N: 584432	D94				
ACCUMULATOR, 22C-4, BUBBLE TOWER OVERHEAD, HEIGHT: 22 FT 11 IN; DIAMETER: 7 FT 6 IN A/N: 584432	D95				
VESSEL, 22C-26, GLAND OIL, HEIGHT: 12 FT ; DIAMETER: 5 FT A/N: 584432	D98			HAP: (10) [40CFR 63 Subpart CC, #2, 6-23-2003]	
SCRUBBER, WATER-WASH, 22C-35, COKER GAS, COMMON TO NORTH AND SOUTH DELAYED COKING UNITS, HEIGHT: 36 FT ; DIAMETER: 6 FT A/N: 584432	D121				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
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- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 2: COKING AND RESIDUAL CONDITIONING					P13.1
VESSEL, SEPARATOR, 22C-116, COMPRESSOR GAS, COMMON TO NORTH AND SOUTH DELAYED COKING UNITS, HEIGHT: 10 FT 6 IN; DIAMETER: 4 FT 6 IN A/N: 584432	D2569				
FILTER, STRAINER, 22J-105A, INTERMITTENT REFLUX, HEIGHT: 3 FT ; DIAMETER: 1 FT 6 IN A/N: 584432	D2570				
FILTER, STRAINER, 22J-105B, INTERMITTENT REFLUX, HEIGHT: 3 FT ; DIAMETER: 1 FT 6 IN A/N: 584432	D2571				
FILTER, STRAINER, 22J-106A, SPARGER, HEIGHT: 6 FT ; DIAMETER: 3 FT A/N: 584432	D2572				
FILTER, STRAINER, 22J-106B, SPARGER, HEIGHT: 6 FT ; DIAMETER: 3 FT A/N: 584432	D2573				
FILTER, 22J-55A, CHARGE PUMP, SUCTION STRAINER, HEIGHT: 6 FT ; DIAMETER: 3 FT A/N: 584432	D2574				
FILTER, 22J-55B, CHARGE PUMP, SUCTION STRAINER, HEIGHT: 6 FT ; DIAMETER: 3 FT A/N: 584432	D2575				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 584432	D1791			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit
 (4) Denotes BACT emission limit
 (5) (5A) (5B) Denotes command and control emission limit
 (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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Process 2: COKING AND RESIDUAL CONDITIONING					P13.1
System 3: COKE HANDLING SYSTEM					S1.6, S13.1
CONVEYOR, FEED, 22J-23, ENCLOSED, LENGTH: 43 FT 6 IN, WIDTH: 44 IN, 125 HP A/N: 581980	D129			PM: (9) [RULE 405, 2-7-1986]	A63.3, D323.1
TANK, HOLDING, 21D-10, DECOKING JET WATER, 90000 GALS; DIAMETER: 30 FT ; HEIGHT: 28 FT 10 IN A/N: 581980	D2384			PM: (9) [RULE 405, 2-7-1986]	D323.1
BIN, COKE DEWATERING, 22R-710, 4 CELLS WITH HOPPER, EACH CELL, WIDTH: 40 FT ; HEIGHT: 35 FT ; LENGTH: 40 FT WITH A/N: 581980 SUMP, EAST, LENGTH: 40 FT, WIDTH: 40 FT, DEPTH: 20 FT	D2385			PM: (9) [RULE 405, 2-7-1986]	D323.1
BIN, SLURRY BIN, BASIN, LAKE, STORM/COKE/WATER, LENGTH: 679 FT; WIDTH: 154 FT; DEPTH: 12 FT 5 IN A/N: 581980	D2386			PM: (9) [RULE 405, 2-7-1986]	D323.1
CLARIFIER, SETTLING/SEPARATION, 22R-712, COKE FINES/WATER, 2 CELLS, LENGTH: 124 FT, WIDTH: 40FT, DEPTH: 35 FT EACH A/N: 581980	D2388			PM: (9) [RULE 405, 2-7-1986]	D323.1

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 (3) Denotes RECLAIM concentration limit
 (4) Denotes BACT emission limit
 (5) (5A) (5B) Denotes command and control emission limit
 (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit
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Process 2: COKING AND RESIDUAL CONDITIONING					P13.1
LOADING ARM, CRANE (SPARE), 22J-25 BULK MATERIAL LOAD/UNLOAD STATION, 22J-25, WITH MAIN DRIVE/TROLLEY, 300 HP, AND BRIDGE DRIVE, 50 HP A/N: 581980	D2389			PM: (9) [RULE 405, 2-7-1986]	A63.3, D323.1
CONVEYOR, MAIN, 22J-24, WIND SCREEN, LENGTH: 943 FT 4 IN ,WIDTH: 30 IN, 40 HP DRIVE A/N: 581980	D130			PM: (9) [RULE 405, 2-7-1986]	A63.3, D323.1
LOADING ARM, CRANE SYSTEM 22J-29, BULK MATERIAL LOADING/UNLOADING STATION, WITH MAIN DRIVE/TROLLEY, 300 HP, AND BRIDGE DRIVE, 50 HP A/N: 581980	D919			PM: (9) [RULE 405, 2-7-1986]	A63.3, D323.1
System 4: NORTH DELAYED COKER BLOWDOWN FACILITY					S13.2, S15.1, S15.2, S31.6
KNOCK OUT POT, 21C-20, HEIGHT: 30 FT 5 IN; DIAMETER: 16 FT A/N:	D137				
ACCUMULATOR, 21C-50, CONDENSATE, HEIGHT: 40 FT 3 IN; DIAMETER: 10 FT A/N:	D138				
FILTER, STRAINER, 21J-31A, KNOCKOUT DRUM PUMP SUCTION A/N:	D2529				
FILTER, STRAINER, 21J-31B, KNOCKOUT DRUM PUMP SUCTION A/N:	D2530				

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- (2) (2A) (2B) Denotes RECLAIM emission rate
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Process 2: COKING AND RESIDUAL CONDITIONING					P13.1
FUGITIVE EMISSIONS, MISCELLANEOUS A/N:	D1792			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 5: SOUTH DELAYED COKER BLOWDOWN FACILITY					S13.2, S15.1, S15.2, S31.6
KNOCK OUT POT, 22C-32, HEIGHT: 30 FT 5 IN; DIAMETER: 16 FT A/N:	D2555				
ACCUMULATOR, 22C-33, CONDENSATE, LENGTH: 40 FT 3 IN; DIAMETER: 10 FT A/N:	D141				
ACCUMULATOR, 22C-36, LENGTH: 12 FT ; DIAMETER: 4 FT A/N:	D142				
ACCUMULATOR, LOW PRESSURE, 53C-4, LENGTH: 20 FT ; DIAMETER: 8 FT A/N:	D143				
FILTER, STRAINER, 22J-27A, KNOCK OUT DRUM PUMP SUCTION A/N:	D2532				
FILTER, STRAINER, 22J-27B, KNOCK OUT DRUM PUMP SUCTION A/N:	D2533				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N:	D1793			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 6: COKER HEATERS					

* (1) (1A) (1B) Denotes RECLAIM emission factor
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 (9) See App B for Emission Limits
 (2) (2A) (2B) Denotes RECLAIM emission rate
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 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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Process 2: COKING AND RESIDUAL CONDITIONING					P13.1
HOPPER, LOADING, WIDTH: 9 FT; LENGTH: 15 FT 3 IN; HEIGHT: 10 FT A/N: 581935	D2333				A63.3, D323.1
CONVEYOR, BC-1, WIDTH: 4 FT 6 IN; LENGTH: 47 FT 10 IN, WITH 60 HP MOTOR A/N: 581935	D2334				A63.3, D323.1
CONVEYOR, BC-2, WIDTH: 4 FT 6 IN; LENGTH: 54 FT, WITH A 60 HP MOTOR A/N: 581935	D2335				A63.3, D323.1
System 9: FUEL GAS FILTER SEPARATORS					S13.2, S15.15, S31.5
FILTER, SEPARATOR, 21J-22, REFINERY FUEL GAS, VESSEL TYPE, WITH A LOWER BARREL, FOR STORAGE OF THE REMOVED LIQUID, SERVES 3 HEATERS (21F-6, 21F-7 & 21F-8) A/N: 582173	D2413				
FILTER, SEPARATOR, 22J-28, REFINERY FUEL GAS, VESSEL TYPE, WITH A LOWER BARREL, FOR STORAGE OF THE REMOVED LIQUID, SERVES 3 HEATERS (22F-1, 22F-2 & 22F-3) A/N: 582173	D2414				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582173	D2415			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
Process 3: Fluid Catalytic Cracking Unit (FCCU)					P13.1
System 1: FCCU, Cracking System					S4.1, S13.2, S15.1

- * (1) (1A) (1B) Denotes RECLAIM emission factor
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- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
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Process 3: Fluid Catalytic Cracking Unit (FCCU)					P13.1
VESSEL, SURGE, 2C-17, HOT FRESH FEED, LENGTH: 25 FT ; DIAMETER: 10 FT A/N: 582075	D155				E336.9
VESSEL, 2C-18, SURGE, COLD FRESH FEED, LENGTH: 25 FT ; DIAMETER: 10 FT A/N: 582075	D156				E336.9
REACTOR, 2C-4, WITH INTERNAL REACTOR RISER & 1ST & 2ND STAGE CATALYST SEPARATORS, HEIGHT: 44 FT ; DIAMETER: 23 FT 6 IN WITH A/N: 582075	D1589				
COLUMN, STRIPPER, 2C-5, HC VAPOR/SPENT CATALYST, HEIGHT: 25 FT 6 IN; DIAMETER: 12 FT 6 IN					

- * (1) (1A) (1B) Denotes RECLAIM emission factor
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- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 3: Fluid Catalytic Cracking Unit (FCCU)					P13.1
REGENERATOR, 2C-3, HEIGHT: 45 FT ; DIAMETER: 37 FT 2 IN WITH A/N: 582075	D151	C164 C1590 C1772 C2283 C2284 C2314	NOX: MAJOR SOURCE**; SOX: MAJOR SOURCE**	CO: 500 PPMV (8) [40CFR 60 Subpart J, 6-24-2008; CONSENT DECREE CIVIL CASE No. 05 C 5809, 12-13-2005]; CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; HAP: (10) [40CFR 63 Subpart UUU, #2, 4-20-2006]; NH3: 10 PPMV (5) [RULE 1105.1, 11-7-2003]; NOX: 20 PPMV (8) [CONSENT DECREE CIVIL CASE No. 05 C 5809, 12-13-2005]; NOX: 40 PPMV (8A) [CONSENT DECREE CIVIL CASE No. 05 C 5809, 12-13-2005]; NOX: 140 PPMV (8B) [CONSENT DECREE CIVIL CASE No. 05 C 5809, 12-13-2005]; PM: (9) [RULE 404, 2-7-1986; RULE 405, 2-7-1986]; PM: 1 LB(S)/1000 LBS (8) [40CFR 60 Subpart J, 6-24-2008]; PM10: 0.005 GRAINS/SCF (5) [RULE 1105.1, 11-7-2003]; PM10: 2.8 LBS/1000 BBS (5A) [RULE 1105.1, 11-7-2003]; PM10: 3.6 LBS/HR (5B) [RULE 1105.1, 11-7-2003]; SOX: 25 PPMV (5B) [CONSENT DECREE CIVIL CASE No. 05 C 5809, 12-13-2005]; SOX: 50 PPMV (8A) [40CFR 60 Subpart J, 6-24-2008; CONSENT DECREE CIVIL CASE No. 05 C 5809, 12-13-2005]	A63.4, A99.1, A99.2, A99.3, A195.2, A195.3, A195.4, A195.5, A195.6, A195.7, D28.26, D29.3, D82.2, D82.5, D90.4, E193.18, E448.2, E448.6, H23.17, K67.14, K67.15

* (1) (1A) (1B) Denotes RECLAIM emission factor (2) (2A) (2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit
 (5) (5A) (5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (9) See App B for Emission Limits (10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 3: Fluid Catalytic Cracking Unit (FCCU)					P13.1
INJECTOR, FCCU CYCLE OIL/HYDROTREATED GAS OIL INJECTOR, HOPPER, CO PROMOTER CATALYST, 2G-19, D: 2 FT, H: 4 FT 4 IN INJECTOR, CATALYST ADDITIVES (GRACE DAVISON OLEFINSMAX ZSM-5), CO PROMOTER (GRACE DAVISON CP-5) INJECTOR, BASE CATALYST (GRACE DAVISON GENESIS-2634), BASE CATALYST (SINOPEC RIPP ZDOS-T), BASE CATALYST (GRACE DAVISON ALCYON-U411)					
BLOWER, 2K-1, REGENERATOR AIR, ALLIS CHALMERS, MODEL VA-1310, 220,000 SCFM A/N: 582075	D1636				
VESSEL, ABRASIVE CHARGE/INJECTION, 2C-111, CRUSHED WALNUT SHELLS, LOCATED UPSTREAM OF THE EXPANDER, HEIGHT: 4 FT 1 IN; DIAMETER: 1 FT 11 IN A/N: 582075	D2278	C164			C1.66, E175.2

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit
 (4) Denotes BACT emission limit
 (5) (5A) (5B) Denotes command and control emission limit
 (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (9) See App B for Emission Limits
 (10) See section J for NESHAP/MACT requirements

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 3: Fluid Catalytic Cracking Unit (FCCU)					P13.1
TURBINE, EXPANDER, UNFIRED, 2K-1E, REGENERATOR FLUE GAS, 28,950 HP WITH A/N: 582075 GENERATOR, ELECTRIC, 2K-1M, COMMON TO STEAM TURBINE 2K-1T, 7500 KW	D2305				
TURBINE, STEAM, UNFIRED, 2K-1T, REGENERATOR FLUE GAS, 13,000 HP WITH A/N: 582075 GENERATOR, ELECTRIC, 2K-1M, COMMON TO EXPANDER/TURBINE 2K-1E, 7500 KW	D2307				
BOILER, WASTE HEAT, UNFIRED, 2F-7 A/N: 582075	D1511	S1739 C1772 D2548			
COMPRESSOR, PROCESS AIR/PURGE GAS, 75K-101, JOY 1, CENTRIFUGAL, 800 HP A/N: 582075	D2309				
BLOWER, FAN, INDUCED DRAFT, 2K-2, 800/1250 DUAL RATING MOTOR A/N: 582075	D2548	D1511 S1739			
COMPRESSOR, PROCESS AIR/PURGE GAS, 75K-102, JOY 2, CENTRIFUGAL, 1,000 HP A/N: 582075	D2310				

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit
 (4) Denotes BACT emission limit
 (5) (5A) (5B) Denotes command and control emission limit
 (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (9) See App B for Emission Limits
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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 3: Fluid Catalytic Cracking Unit (FCCU)					P13.1
COMPRESSOR, PROCESS AIR/PURGE GAS, 75K-103, JOY 3, CENTRIFUGAL, 575 HP A/N: 582075	D2311				
COMPRESSOR, PROCESS AIR/PURGE GAS, 75K-104, JOY 4, CENTRIFUGAL, 1,250 HP A/N: 582075	D2312				
COMPRESSOR, PROCESS AIR/PURGE GAS, 75K-105/106, JOY 5 & 6, CENTRIFUGAL, 2 TOTAL, 1,500 HP EACH A/N: 582075	D2313				
STACK, 2F-7, WITH EMERGENCY BYPASS DUCTING (CONNECTING, ESP & BYPASS SCR, WASTE HEAT BOILER & ID FAN), HEIGHT: 89 FT ; DIAMETER: 11 FT 4 IN A/N: 582075	S1739	D1511 C1772 D2548			
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582075	D1800			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 2: FCCU AIR POLLUTION CONTROL SYSTEM					
CYCLONE, 2C-25, 3RD STAGE SEPARATOR, CATALYST DUST, HEIGHT: 57 FT ; DIAMETER: 26 FT A/N: 582076	C1590	D151			

- * (1) (1A) (1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See section J for NESHAP/MACT requirements

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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 3: Fluid Catalytic Cracking Unit (FCCU)					P13.1
CYCLONE, 2C-26-CY, 4TH STAGE SEPARATOR, CATALYST DUST, HEIGHT: 3 FT 3 IN; DIAMETER: 1 FT 9 IN WITH A/N: 582076 HOPPER, 2C-26, CATALYST DUST, DIA: 8 FT, H: 12 FT	C2314	D151			D323.1, E102.2, K67.16
BOILER, 2F-3, CARBON MONOXIDE WASTE HEAT, NATURAL GAS, REFINERY GAS, WITH LOW NOX BURNER, 464 MMBTU/HR WITH A/N: 582060 BURNER, NATURAL GAS, REFINERY GAS, FOUR LO-NOX, WITH LOW NOX BURNER, 464 MMBTU/HR	C164	D151 D2278	NOX: MAJOR SOURCE**; SOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; PM: 0.01 GRAINS/SCF (5A) [RULE 476, 10-8-1976]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]; PM: 11 LBS/HR (5B) [RULE 476, 10-8-1976]	B61.3, D82.2, D90.12, E193.16, E448.2, H23.13, K67.14

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See section J for NESHAP/MACT requirements

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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

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The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 3: Fluid Catalytic Cracking Unit (FCCU)					P13.1
ELECTROSTATIC PRECIPITATOR, 2D-17, PLATE-RDE, DRY, NEGATIVE CORONA, 2 CHAMBERS, 6 FIELDS, 12 T/R SETS, 24 CELLS, HRC, IN PARALLEL WITH 2D-18, 54 FT L, 80 FT W, 36 FT H, 1380 KVA WITH A/N: 582089 AMMONIA INJECTION HOPPER, CATALYST DUST, 24 TOTAL ELECTROSTATIC PRECIPITATOR, 2D-2, 18 FT L, 37 FT - 6 IN W, 30 FT H, IDLE MODE, IN SERIES WITH 2D-1, COMMON TO C2283 & C2284, DESIGNATED AS DUCTING PIPE, NON-APC FUNCTION.	C2283	D151			C12.2, D29.4, D90.8, D90.9, D90.10, D90.11, D323.1, E102.2, E193.18, E193.19, K67.16 C12.1, E102.2

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See section J for NESHAP/MACT requirements

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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 3: Fluid Catalytic Cracking Unit (FCCU)					P13.1
ELECTROSTATIC PRECIPITATOR, 2D-18, PLATE-RDE, DRY, NEGATIVE CORONA, 2 CHAMBERS, 6 FIELDS, 12 T/R SETS, 24 CELLS, HRC, IN PARALLEL WITH 2D-17, 54 FT L, 80 FT W, 36 FT H, 1380 KVA WITH A/N: 582088 AMMONIA INJECTION HOPPER, CATALYST DUST, 24 TOTAL ELECTROSTATIC PRECIPITATOR, 2D-1, 42 FT L. 60 FT- 5.5 IN W. 49 FT- 4 IN H., IDLE MODE, IN SERIES WITH 2D-2, COMMON TO C2283 AND C2284, DESIGNATED AS DUCTING PIPE, NON-APC FUCTION.	C2284	D151			C12.2, D29.4, D90.8, D90.9, D90.10, D90.11, D323.1, E102.2, E193.18, E193.19, K67.16 C12.1, E102.2
SELECTIVE CATALYTIC REDUCTION, FIXED BED REACTOR, WITH CORMETECH VANADIUM PENTOXIDE HONEYCOMB TYPE CATALYST, WIDTH: 27 FT ; HEIGHT: 56 FT ; LENGTH: 31 FT A/N: 581975	C1772	D151 D1511 S1739		NH3: 10 PPMV (5) [RULE 1105.1, 11-7-2003]	A195.2, D12.1, D12.2, D29.4, E448.6, K40.4, K171.12, K171.13
System 3: CATALYST/SPENT CATALYST HANDLING AND STORAGE					

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit
 (4) Denotes BACT emission limit
 (5) (5A) (5B) Denotes command and control emission limit
 (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (9) See App B for Emission Limits
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SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 3: Fluid Catalytic Cracking Unit (FCCU)					P13.1
HEATER, 2F-1, REGENERATOR STARTUP/AIR HEATER, NATURAL GAS, REFINERY GAS, INTEGRAL TO REGENERATOR 2C-3, 132 MMBTU/HR A/N: 582015	D2320		NOX: MAJOR SOURCE**; SOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	
HEATER, FCCU CHARGE OR FRACTIONATION COLUMN CHARGE, 2F-2, NATURAL GAS, REFINERY GAS, WITH LOW NOX BURNER, 108 MMBTU/HR WITH A/N: 581883 BURNER, NATURAL GAS, REFINERY GAS, EIGHT ULTRA, WITH LOW NOX BURNER, 108 MMBTU/HR	D920		NOX: MAJOR SOURCE**; SOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B61.3, C1.1, D90.12, D328.1, E193.16, H23.13, K171.15
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581883	D2367			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 5: FCCU, Fractionation System					S4.1, S13.2, S15.1, S15.2, S15.11
FRACTIONATOR, MAIN COLUMN, 2C-6, HEIGHT: 108 FT ; DIAMETER: 21 FT A/N: 581931	D152				
VESSEL, RECEIVER, MAIN COLUMN OVERHEAD, 2C-7, LENGTH: 33 FT ; DIAMETER: 11 FT A/N: 581931	D153				

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit
 (4) Denotes BACT emission limit
 (5) (5A) (5B) Denotes command and control emission limit
 (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (9) See App B for Emission Limits
 (10) See section J for NESHAP/MACT requirements

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The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 3: Fluid Catalytic Cracking Unit (FCCU)					P13.1
COLUMN, STRIPPER, 2C-8, LIGHT CYCLE OIL, LENGTH: 21 FT ; DIAMETER: 6 FT 6 IN A/N: 581931	D154				
KNOCK OUT POT, 2C-22, MAIN COLUMN BOTTOMS, PARTICLES/FINES KNOCKOUT, HEIGHT: 3 FT 5 IN; DIAMETER: 1 FT 4 IN A/N: 581931	D2321				K171.16
SETTLING TANK, 2C-9, SLURRY, HEIGHT: 24 FT ; DIAMETER: 12 FT A/N: 581931	D163				
ACCUMULATOR, 2C-11, HIGH PRESSURE HYDRAULIC, HEIGHT: 10 FT 6 IN; DIAMETER: 4 FT A/N: 581931	D2322				
VESSEL, 2C-12, HYDRAULIC SYSTEM RECEIVER, HEIGHT: 10 FT 6 IN; DIAMETER: 4 FT A/N: 581931	D2323				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581931	D1740			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 6: NH3 (Liquefied Anhydrous) Storage & Vaporization					
STORAGE TANK, PRESSURIZED, 75C-118, ANHYDROUS AMMONIA, 1000 GALS; DIAMETER: 3 FT 6 IN; LENGTH: 13 FT 3 IN WITH A/N: 582061	D2324				K67.13
EVAPORATOR, AMMONIA, 75E-124A, ELECTRIC HEATED					

- * (1) (1A) (1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See section J for NESHAP/MACT requirements

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 3: Fluid Catalytic Cracking Unit (FCCU)					P13.1
STORAGE TANK, PRESSURIZED, 75C-35, ANHYDROUS AMMONIA, 1000 GALS; DIAMETER: 3 FT 6 IN; LENGTH: 13 FT 3 IN WITH A/N: 581937	D2325				K67.13
EVAPORATOR, AMMONIA, 75E-124B, ELECTRIC HEATED					
System 7: Fuel Gas Filter Separator					S13.2, S15.1
FILTER, SEPARATOR, 2J-6, REFINERY FUEL GAS, VESSEL TYPE, WITH A LOWER BARREL FOR STORAGE OF REMOVED LIQUID, SERVES HEATER 2F-2 A/N: 582003	D2328				K171.17
FILTER, SEPARATOR, 2J-7, REFINERY FUEL GAS, VESSEL TYPE, WITH A LOWER BARREL FOR STORAGE OF REMOVED LIQUID, SERVES CO BOILER 2F-3 A/N: 582003	D2329				K171.17
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582003	D2330			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 8: FCCU Base Catalyst/Catalyst Additives Injecting System					

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 - (3) Denotes RECLAIM concentration limit
 - (5) (5A) (5B) Denotes command and control emission limit
 - (7) Denotes NSR applicability limit
 - (9) See App B for Emission Limits
 - (2) (2A) (2B) Denotes RECLAIM emission rate
 - (4) Denotes BACT emission limit
 - (6) Denotes air toxic control rule limit
 - (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 3: Fluid Catalytic Cracking Unit (FCCU)					P13.1
FILTER, CARTRIDGE TYPE, CATALYST DUST, 2 IN PARALLEL, CLEMTEX, MODEL FA376094, EACH OD:1 FT 2 IN, ID:10 IN, H:2 FT 6 IN, WITH AUTOMATIC AIR PULSE CLEANING, 260 SQ.FT. A/N: 582070	C2397	D2395			C6.4, D29.6, D322.3, D323.1, E102.1
Process 4: HYDROTREATING PROCESS					P13.1
System 1: FCCU FEED (GAS OIL) HYDRODESULFURIZATION UNIT					S4.1, S13.2, S15.1, S15.2, S15.9, S31.2
TURBINE, HIGH TEMPERATURE SEPARATOR POWER RECOVERY, UNFIRED, 25J-1A A/N: 582175	D169				
TURBINE, HIGH TEMPERATURE SEPARATOR POWER RECOVERY, UNFIRED, 25J-1B A/N: 582175	D170				
TURBINE, RICH DEA POWER RECOVERY, UNFIRED, 25J-02, SERVING 25G-5A A/N: 582175	D171				
EJECTOR, 25J-22A, STEAM JET A/N: 582175	D2184				
SUMP, 25D-1, AMINE, LENGTH: 10 FT, WIDTH: 10 FT, DEPTH: 7 FT 6 IN A/N: 582175	D2185				
SUMP, 25D-2, CONDENSATE, DIAMETER: 3 FT, DEPTH: 3 FT, DEPTH: 3 FT 3 IN A/N: 582175	D2186				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See section J for NESHAP/MACT requirements

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 4: HYDROTREATING PROCESS					P13.1
VESSEL, 25C-51, CONDENSATE RECEIVER A/N: 582175	D2187				
EJECTOR, 25J-22B, STEAM JET A/N: 582175	D2188				
ABSORBER, HIGH PRESSURE AMINE, 25C-10, HEIGHT: 77 FT 6 IN; DIAMETER: 8 FT A/N: 582175	D172				
COLUMN, STRIPPER, PRODUCT, 25C-11, HEIGHT: 66 FT ; DIAMETER: 13 FT A/N: 582175	D173				
ABSORBER, LOW PRESSURE AMINE, 25C-13, HEIGHT: 57 FT ; DIAMETER: 3 FT A/N: 582175	D174				
FRACTIONATOR, 25C-15, HEIGHT: 114 FT 4 IN; DIAMETER: 14 FT 6 IN A/N: 582175	D175				
COLUMN, STRIPPER/DRYER, 25C-17, KEROSENE, HEIGHT: 64 FT 6 IN; DIAMETER: 4 FT A/N: 582175	D176				
COLUMN, STRIPPER, 25C-18, LIGHT GAS OIL, HEIGHT: 35 FT ; DIAMETER: 5 FT 6 IN A/N: 582175	D177				
VESSEL, VACUUM DRYER, 25C-27, LIGHT GAS OIL, HEIGHT: 32 FT ; DIAMETER: 5 FT A/N: 582175	D178				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 - (3) Denotes RECLAIM concentration limit
 - (5) (5A) (5B) Denotes command and control emission limit
 - (7) Denotes NSR applicability limit
 - (9) See App B for Emission Limits
 - (2) (2A) (2B) Denotes RECLAIM emission rate
 - (4) Denotes BACT emission limit
 - (6) Denotes air toxic control rule limit
 - (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 - (10) See section J for NESHAP/MACT requirements
- ** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 4: HYDROTREATING PROCESS					P13.1
DRUM, SURGE, 25C-04, COLD FEED, HEIGHT: 32 FT ; DIAMETER: 10 FT A/N: 582175	D188				
DRUM, SURGE, 25C-05, HOT FEED, HEIGHT: 35 FT ; DIAMETER: 11 FT A/N: 582175	D189				
VESSEL, SEPARATOR, HIGH TEMPERATURE, 25C-7A, HEIGHT: 29 FT .75 IN; DIAMETER: 7 FT A/N: 582175	D190				
VESSEL, SEPARATOR, HIGH TEMPERATURE, 25C-7B, HEIGHT: 29 FT .75 IN; DIAMETER: 7 FT A/N: 582175	D191				
VESSEL, SEPARATOR, LOW TEMPERATURE, 25C-8, LENGTH: 38 FT ; DIAMETER: 11 FT A/N: 582175	D192				
KNOCK OUT POT, 25C-9, RECYCLE GAS, LENGTH: 14 FT ; DIAMETER: 7 FT A/N: 582175	D193				
ACCUMULATOR, 25C-12, STRIPPER OVERHEAD, LENGTH: 27 FT ; DIAMETER: 6 FT 6 IN A/N: 582175	D194				
ACCUMULATOR, 25C-16, FRACTIONATOR OVERHEAD, LENGTH: 25 FT ; DIAMETER: 8 FT A/N: 582175	D196				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 - (3) Denotes RECLAIM concentration limit
 - (5) (5A) (5B) Denotes command and control emission limit
 - (7) Denotes NSR applicability limit
 - (9) See App B for Emission Limits
 - (2) (2A) (2B) Denotes RECLAIM emission rate
 - (4) Denotes BACT emission limit
 - (6) Denotes air toxic control rule limit
 - (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 - (10) See section J for NESHAP/MACT requirements
- ** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 4: HYDROTREATING PROCESS					P13.1
DRUM, SURGE, 25C-19, CONDENSATE, HEIGHT: 14 FT ; DIAMETER: 4 FT A/N: 582175	D197				
DRUM, SURGE, 25C-20, DEA, HEIGHT: 22 FT ; DIAMETER: 6 FT A/N: 582175	D198				
VESSEL, 25C-24, DIMETHYLDISULFIDE, HEIGHT: 16 FT ; DIAMETER: 4 FT A/N: 582175	D200				
KNOCK OUT POT, 25C-26, OFFGAS, HEIGHT: 9 FT 6 IN; DIAMETER: 2 FT A/N: 582175	D201				
KNOCK OUT POT, VACUUM, 25C-28, LENGTH: 14 FT 6 IN; DIAMETER: 3 FT A/N: 582175	D202				
KNOCK OUT POT, 25C-50, FUME GAS, HEIGHT: 11 FT ; DIAMETER: 3 FT A/N: 582175	D206				
COMPRESSOR, 25K-1A/1B/1C, MAKEUP HYDROGEN, 6000-HP EACH, 3 TOTAL A/N: 582175	D221				
COMPRESSOR, 25K-2, RECYCLE HYDROGEN A/N: 582175	D224				
COMPRESSOR, 25K-3A/3B, STRIPPER OFFGAS, 450-HP, 514 RPM, EACH, 2 TOTAL A/N: 582175	D225				

* (1) (1A) (1B) Denotes RECLAIM emission factor (2) (2A) (2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit
 (5) (5A) (5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (9) See App B for Emission Limits (10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 4: HYDROTREATING PROCESS					P13.1
REACTOR, HYDROTREATER GUARD, 25C-40A, HEIGHT: 35 FT 5.5 IN; DIAMETER: 13 FT 6 IN A/N: 582175	D227				
REACTOR, HYDROTREATER GUARD, 25C-40B, HEIGHT: 35 FT 5.5 IN; DIAMETER: 13 FT 6 IN A/N: 582175	D228				
REACTOR, HYDROTREATER MAIN, 25C-41A, HEIGHT: 80 FT 9.5 IN; DIAMETER: 13 FT 6 IN A/N: 582175	D229				
REACTOR, HYDROTREATER MAIN, 25C-41B, HEIGHT: 80 FT 9.5 IN; DIAMETER: 13 FT 6 IN A/N: 582175	D230				
FILTER, 25J-6A/B, FUEL GAS, 2 TOTAL A/N: 582175	D1260				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582175	D1803			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
FILTER, 25J-5, 25 MICRON A/N: 582175	D2434				
EJECTOR, EVACUATION EJECTOR, 25H-1 A/N: 582175	D2435				H23.11
System 2: FCCU FEED HYDRODESULFURIZATION UNIT HEATING SYSTEM					

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 - (3) Denotes RECLAIM concentration limit
 - (5) (5A) (5B) Denotes command and control emission limit
 - (7) Denotes NSR applicability limit
 - (9) See App B for Emission Limits
 - (2) (2A) (2B) Denotes RECLAIM emission rate
 - (4) Denotes BACT emission limit
 - (6) Denotes air toxic control rule limit
 - (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 - (10) See section J for NESHAP/MACT requirements
- ** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 4: HYDROTREATING PROCESS					P13.1
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581886	D1805			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 3: REFORMER FEED (NAPHTHA) HYDROTREATER					S13.2, S15.1, S15.2, S15.12, S31.2
COLUMN, STRIPPER, 20C-1, HEIGHT: 90 FT 6 IN; DIAMETER: 7 FT 6 IN A/N: 582146	D302				
TANK, OIL SURGE, 20C-21, HEIGHT: 17 FT 7 IN; DIAMETER: 6 FT A/N: 582146	D2183				
COLUMN, DEHEXANIZER, 20C-3, HEIGHT: 80 FT ; DIAMETER: 11 FT A/N: 582146	D303				
ACCUMULATOR, 20C-11, STABILIZER OVERHEAD, LENGTH: 20 FT ; DIAMETER: 7 FT 6 IN A/N: 582146	D304				
VESSEL, SEPARATOR, HIGH PRESSURE, 20C-2, LENGTH: 27 FT ; DIAMETER: 6 FT A/N: 582146	D305				
VESSEL, SEPARATOR, LOW PRESSURE, 20C-18, LENGTH: 24 FT ; DIAMETER: 6 FT A/N: 582146	D306				
KNOCK OUT POT, 20C-30, RECYCLE GAS, LENGTH: 9 FT ; DIAMETER: 5 FT 6 IN A/N: 582146	D307				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 4: HYDROTREATING PROCESS					P13.1
ACCUMULATOR, 20C-31, STRIPPER OVERHEAD, LENGTH: 12 FT ; DIAMETER: 5 FT A/N: 582146	D308				
TANK, 20C-36, STRAIGHT RUN NAPHTHA CHARGE, LENGTH: 20 FT ; DIAMETER: 7 FT A/N: 582146	D309				
REACTOR, NO. 4, PRE-TREATER, 20C-26, HEIGHT: 28 FT 11 IN; DIAMETER: 6 FT A/N: 582146	D312				
REACTOR, NO. 5, PRE-TREATER, 20C-27, HEIGHT: 28 FT 6 IN; DIAMETER: 6 FT A/N: 582146	D313				
REACTOR, NO. 6, PRE-TREATER, 20C-28, DIAMETER: 15 FT 2 IN A/N: 582146	D314				
TANK, SURGE, 20C-63, NAPHTHA, HEIGHT: 21 FT ; DIAMETER: 7 FT 6 IN A/N: 582146	D1202				E204.1, E204.3
FILTER, GAS FILTER, 20J-3 A/N: 582146	D2182				
POT, REBOILER CONDENSATE POT, 20C-112, HEIGHT: 4 FT 6 IN; DIAMETER: 2 FT 6 IN A/N: 582146	D1204				E204.1, E204.3

* (1) (1A) (1B) Denotes RECLAIM emission factor (2) (2A) (2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit
 (5) (5A) (5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (9) See App B for Emission Limits (10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 4: HYDROTREATING PROCESS					P13.1
COMPRESSOR, 20K-3A, RECYCLE GAS, RECIPROCATING, 150-HP, CONDENSATE POT, DIAMETER: 6 IN, HEIGHT: 1 FT 6 IN A/N: 582146	D329				
COMPRESSOR, 20K-3B, RECYCLE GAS, RECIPROCATING, 150-HP, CONDENSATE POT, DIAMETER: 6 IN, HEIGHT: 1 FT 6 IN A/N: 582146	D330				
COMPRESSOR, 20K-3D, RECYCLE GAS, RECIPROCATING, 400-HP, CONDENSATE POT, DIAMETER: 6 IN, HEIGHT: 1 FT 6 IN A/N: 582146	D1244				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582146	D1810			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 4: REFORMER FEED HYDROTREATER HEATING SYSTEM					

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 - (3) Denotes RECLAIM concentration limit
 - (5) (5A) (5B) Denotes command and control emission limit
 - (7) Denotes NSR applicability limit
 - (9) See App B for Emission Limits
 - (2) (2A) (2B) Denotes RECLAIM emission rate
 - (4) Denotes BACT emission limit
 - (6) Denotes air toxic control rule limit
 - (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 - (10) See section J for NESHAP/MACT requirements
- ** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 4: HYDROTREATING PROCESS					P13.1
HEATER, PRETREATER REACTOR CHARGE SECTION & STRIPPER REBOILER SECTION, 20F-1A/B, NATURAL GAS, REFINERY GAS, WITH LOW NOX BURNER, 107.4 MMBTU/HR WITH A/N: 581984 BURNER, NATURAL GAS, REFINERY GAS, JOHN ZINK, MODEL PSFC-18M, 8 TOTAL; 63 MMBTU/HR BURNER, NATURAL GAS, REFINERY GAS, CALLIDUS, MODEL LE-CSG-12W, 4 TOTAL; 44.4 MMBTU/HR	D269		NOX: MAJOR SOURCE**; SOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	D328.1, E193.16, H23.13
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581984	D2368			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 5: PRODUCT (Jet Fuel/Diesel/Other) HYDRODESULFURIZATION UNIT					S13.2, S15.1, S15.2, S15.10
FILTER, COALESCER, 6C-29 A/N: 581993	D2179				
DRUM, 6C-1, FEED SURGE, LENGTH: 30 FT ; DIAMETER: 12 FT A/N: 581993	D557				
COLUMN, FEED STRIPPER, 6C-2, HEIGHT: 50 FT 3 IN; DIAMETER: 8 FT A/N: 581993	D558				

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 4: HYDROTREATING PROCESS					P13.1
ABSORBER, AMINE, 6C-3, HEIGHT: 69 FT ; DIAMETER: 4 FT A/N: 581993	D559				
VESSEL, RECYCLE COMPRESSOR SUCTION, 6C-4, HEIGHT: 8 FT ; DIAMETER: 3 FT A/N: 581993	D560				
REACTOR, 6C-5, HEIGHT: 32 FT 9 IN; DIAMETER: 11 FT A/N: 581993	D561				
DRUM, FLASH, 6C-6, COLD, LENGTH: 21 FT ; DIAMETER: 5 FT A/N: 581993	D562				
DRUM, FLASH, 6C-7, HOT, HEIGHT: 16 FT ; DIAMETER: 6 FT A/N: 581993	D563				
COLUMN, PRODUCT STRIPPER, 6C-8, HEIGHT: 72 FT 2 IN; DIAMETER: 11 FT 6 IN A/N: 581993	D564				
FILTER, FUEL GAS, 6J-1 A/N: 581993	D2180				
FILTER, 6J-12, CLAY TREATER, 700 GPM CAPACITY, DIAMETER: 10 FT; HEIGHT: 20 FT A/N: 581993	D2181				
ACCUMULATOR, 6C-9, PRODUCT STRIPPER OVERHEAD, LENGTH: 16 FT ; DIAMETER: 5 FT A/N: 581993	D565				

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 4: HYDROTREATING PROCESS					P13.1
VESSEL, FLASH, 6C-11, FOUL WATER, HEIGHT: 6 FT ; DIAMETER: 2 FT 6 IN A/N: 581993	D567				
VESSEL, BOOSTER COMPRESSOR SUCTION, 6C-12, HEIGHT: 8 FT ; DIAMETER: 3 FT A/N: 581993	D568				
VESSEL, LOW PRESSURE GAS COMPRESSOR 2ND INTERSTAGE, 6C-13, HEIGHT: 8 FT ; DIAMETER: 3 FT A/N: 581993	D569				
VESSEL, LOW PRESSURE GAS COMPRESSOR 1ST INTERSTAGE, 6C-14, HEIGHT: 8 FT ; DIAMETER: 2 FT 6 IN A/N: 581993	D570				
TOWER, 6C-25/26/27, CLAY TREATER, 3 TOTAL, HEIGHT: 20 FT ; DIAMETER: 10 FT A/N: 581993	D571				
COMPRESSOR, RECYCLE, 6K-1, RECIPROCATING TYPE WITH PACKED GLAND, 400 HP MOTOR A/N: 581993	D572				
COMPRESSOR, 6K-2, LOW PRESSURE GAS, RECIPROCATING TYPE WITH PACKED GLAND, 600 HP MOTOR A/N: 581993	D574				H23.34

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 - (3) Denotes RECLAIM concentration limit
 - (5) (5A) (5B) Denotes command and control emission limit
 - (7) Denotes NSR applicability limit
 - (9) See App B for Emission Limits
 - (2) (2A) (2B) Denotes RECLAIM emission rate
 - (4) Denotes BACT emission limit
 - (6) Denotes air toxic control rule limit
 - (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 - (10) See section J for NESHAP/MACT requirements
- ** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 4: HYDROTREATING PROCESS					P13.1
COMPRESSOR, BOOSTER, 6K-3A, RECIPROCATING TYPE WITH PACKED GLAND, 700 HP MOTOR A/N: 581993	D575				
COMPRESSOR, 6K-3B, RECIPROCATING TYPE WITH PACKED GLAND, 700 HP MOTOR, SPARE A/N: 581993	D576				
FILTER, 6J-14A/B/C, HYDROGEN MEMBRANE, TOTAL COUNT 3, LENGTH: 1 FT 8 IN; DIAMETER: 9.5 IN A/N: 581993	D1741				
FILTER, 6J-15A/B/C, HYDROGEN MEMBRANE, TOTAL COUNT 3, LENGTH: 1 FT 8 IN; DIAMETER: 9.5 IN A/N: 581993	D1742				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581993	D1834			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 6: PRODUCT HYDRODESULFURIZATION UNIT HEATING SYSTEM					

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits

(2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 4: HYDROTREATING PROCESS					P13.1
STORAGE TANK, PRESSURIZED, 25C-23B, ANHYDROUS AMMONIA, WITH PRV VENT TO ATMOSPHERE SET TO AT LEAST 265 PSIG, 500 GALS; DIAMETER: 3 FT 10 IN; LENGTH: 4 FT 8 IN A/N: 581955	D2340				E71.12, K67.13
Process 5: CATALYTIC REFORMING UNIT					P13.1
System 1: PLATINUM REFORMER NO. 1					S4.1, S13.2, S15.1, S15.2, S15.13
COLUMN, STABILIZER, 20C-4, HEIGHT: 114 FT ; DIAMETER: 7 FT A/N: 582025	D237				
ACCUMULATOR, 20C-5, STABILIZER OVERHEAD, HEIGHT: 15 FT ; DIAMETER: 6 FT A/N: 582025	D238				
VESSEL, SEPARATOR, HIGH PRESSURE, 20C-10, HEIGHT: 20 FT ; DIAMETER: 10 FT A/N: 582025	D239				
VESSEL, SEPARATOR, LOW PRESSURE, 20C-15, HEIGHT: 20 FT ; DIAMETER: 6 FT 6 IN A/N: 582025	D240				
REACTOR, NO.1, 20C-23, DIAMETER: 14 FT 2 IN A/N: 582025	D241			HAP: (10) [40CFR 63 Subpart UUU, #1, 4-20-2006]	
REACTOR, NO.2, 20C-24, DIAMETER: 14 FT 2 IN A/N: 582025	D242			HAP: (10) [40CFR 63 Subpart UUU, #1, 4-20-2006]	

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 - (3) Denotes RECLAIM concentration limit
 - (5) (5A) (5B) Denotes command and control emission limit
 - (7) Denotes NSR applicability limit
 - (9) See App B for Emission Limits
 - (2) (2A) (2B) Denotes RECLAIM emission rate
 - (4) Denotes BACT emission limit
 - (6) Denotes air toxic control rule limit
 - (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 - (10) See section J for NESHAP/MACT requirements
- ** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 5: CATALYTIC REFORMING UNIT					P13.1
REACTOR, NO. 3, 20C-25, DIAMETER: 14 FT 2 IN A/N: 582025	D243			HAP: (10) [40CFR 63 Subpart UUU, #1, 4-20-2006]	
REACTOR, NO. 7, 20C-29, DIAMETER: 14 FT 2 IN A/N: 582025	D244			HAP: (10) [40CFR 63 Subpart UUU, #1, 4-20-2006]	
POT, 20C-33, AUXILIARY SEAL OIL, HEIGHT: 11 FT 3 IN; DIAMETER: 4 FT A/N: 582146	D245				
POT, 20C-34, CONTAMINATED SEAL OIL, HEIGHT: 3 FT ; DIAMETER: 1 FT 8 IN A/N: 582025	D246				
POT, 20C-35, CONTAMINATED SEAL OIL, HEIGHT: 3 FT ; DIAMETER: 1 FT 8 IN A/N: 582025	D247				
COMPRESSOR, 20K-1, RECYCLE GAS, WITH OIL SEAL, STEAM TURBINE DRIVE A/N: 582025	D248				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582025	D1808			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 2: PLATINUM REFORMER NO. 2					S4.1, S13.2, S15.1, S15.2, S15.13
REACTOR, STAGE 1, 19C-1, DIAMETER: 12 FT A/N: 582169	D271			HAP: (10) [40CFR 63 Subpart UUU, #1, 4-20-2006]	

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 - (3) Denotes RECLAIM concentration limit
 - (5) (5A) (5B) Denotes command and control emission limit
 - (7) Denotes NSR applicability limit
 - (9) See App B for Emission Limits
 - (2) (2A) (2B) Denotes RECLAIM emission rate
 - (4) Denotes BACT emission limit
 - (6) Denotes air toxic control rule limit
 - (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 - (10) See section J for NESHAP/MACT requirements
- ** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 5: CATALYTIC REFORMING UNIT					P13.1
REACTOR, STAGE 2, 19C-2, DIAMETER: 12 FT A/N: 582169	D272			HAP: (10) [40CFR 63 Subpart UUU, #1, 4-20-2006]	
REACTOR, STAGE 3, 19C-3, DIAMETER: 15 FT A/N: 582169	D273			HAP: (10) [40CFR 63 Subpart UUU, #1, 4-20-2006]	
REACTOR, STAGE 4, 19C-4, DIAMETER: 15 FT A/N: 582169	D274			HAP: (10) [40CFR 63 Subpart UUU, #1, 4-20-2006]	
TANK, REFORMER FEED SURGE, 19C-5, HEIGHT: 30 FT ; DIAMETER: 10 FT A/N: 582169	D275				
VESSEL, SEPARATOR, HIGH PRESSURE, 19C-6, HEIGHT: 20 FT ; DIAMETER: 10 FT A/N: 582169	D276				
ACCUMULATOR, 19C-7, DEBUTANIZER OVERHEAD, HEIGHT: 20 FT ; DIAMETER: 10 FT A/N: 582169	D277				
COLUMN, DEBUTANIZER, 19C-11, HEIGHT: 81 FT ; DIAMETER: 7 FT A/N: 582169	D278				
COMPRESSOR, 19K-1, HYDROGEN RECYCLE GAS, ELLIOTT, MODEL 2MB4-3, CENTRIFUGAL TYPE, 350 HP STEAM TURBINE DRIVEN A/N: 582169	D300				
FILTER, 19C-18, CHARGE, HEIGHT: 4 FT 7 IN; DIAMETER: 1 FT 11 IN A/N: 582169	D2540				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See section J for NESHAP/MACT requirements
- ** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 5: CATALYTIC REFORMING UNIT					P13.1
FILTER, 19J-2, FUEL GAS, HEIGHT: 7 FT ; DIAMETER: 12 FT A/N: 582169	D2541				
TOWER, 75C-14, PTR SCRUBBER, HEIGHT: 37 FT ; DIAMETER: 6 FT A/N: 582169	D2542				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582169	D1809			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 4: PLATFORMER NO. 1 HEATING SYSTEM					
HEATER, NO. 1 REFORMER REACTOR CHARGE, NON-OPERATED, 20F-2, NATURAL GAS, REFINERY GAS, WITH LOW NOX BURNER, 220 MMBTU/HR WITH A/N: 582005 BURNER, NATURAL GAS, REFINERY GAS, MODEL JOHN ZINK, WITH LOW NOX BURNER, 50 TOTAL; 220 MMBTU/HR	D922	C923	NOX: MAJOR SOURCE**; SOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	D328.1, E193.16, E313.1, E315.1, H23.13
SELECTIVE CATALYTIC REDUCTION, FOSTER WHEELER, FIXED BED,, CERAMIC HONEYCOMB CATALYST, 169.8 CU.FT.; WIDTH: 8 FT 6 IN; HEIGHT: 14 FT ; LENGTH: 15 FT 2 IN A/N: 581894	C923	D922		NH3: 20 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10-1996]	D12.2, D12.8, D28.12, E71.7
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582005	D2370			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 5: PLATFORMER NO. 2 HEATING SYSTEM					

- * (1) (1A) (1B) Denotes RECLAIM emission factor ^e
- (3) Denotes RECLAIM concentration limit
- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 5: CATALYTIC REFORMING UNIT					P13.1
STORAGE TANK, PRESSURIZED, 20C-120, ANHYDROUS AMMONIA, WITH PRV VENTED TO ATMOSPHERE SET TO AT LEAST 265 PSIG, 1000 GALS; DIAMETER: 3 FT 6 IN; LENGTH: 13 FT WITH A/N: 581947	D2348				
EVAPORATOR, AMMONIA, 20E-33, ELECTRIC HEATER					
Process 6: HYDROGEN PRODUCTION UNITS					
System 1: HYDROGEN PLANT NO. 1					S2.1, S4.1, S13.2, S13.5, S15.1, S15.2
KNOCK OUT POT, 4C-1, SOUR GAS, HEIGHT: 7 FT ; DIAMETER: 3 FT A/N: 582067	D344				
REACTOR, HYDROTREATER, 4C-2, INTEGRAL TO 4C-3, HEIGHT: 16 FT 10 IN; DIAMETER: 9 FT 6 IN A/N: 582067	D345				
DRUM, 4C-3, ZINC OXIDE GUARD, INTEGRAL TO 4C-2, HEIGHT: 15 FT ; DIAMETER: 6 FT 6 IN A/N: 582067	D346				
COLUMN, METHANATOR, 4C-11, LENGTH: 14 FT 6 IN; DIAMETER: 7 FT 6 IN A/N: 582067	D348				

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit
 (4) Denotes BACT emission limit
 (5) (5A) (5B) Denotes command and control emission limit
 (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (9) See App B for Emission Limits
 (10) See section J for NESHAP/MACT requirements

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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 6: HYDROGEN PRODUCTION UNITS					
COLUMN, LOW TEMPERATURE METHANE SHIFT CONVERTER, 4C-13, HEIGHT: 15 FT 2 IN; DIAMETER: 12 FT 6 IN A/N: 582067	D349				
VESSEL, HIGH TEMPERATURE SEPARATOR, 4C-15, HEIGHT: 16 FT ; DIAMETER: 6 FT A/N: 582067	D350				
VESSEL, SEPARATOR, 4C-24, FEED GAS OIL, HEIGHT: 4 FT 4 IN; DIAMETER: 1 FT 6 IN A/N: 582067	D352				
COMPRESSOR, 4K-1, FEED GAS, WITH STEAM TURBINE DRIVE A/N: 582067	D355				H23.34
COMPRESSOR, 4K-1A, FEED GAS, WITH STEAM TURBINE DRIVE A/N: 582067	D356				H23.34
SCRUBBER, CAUSTIC, 4C-6, HEIGHT: 79 FT ; DIAMETER: 3 FT 6 IN A/N: 582067	D357				
DRUM, SURGE, 4C-26, CAUSTIC, LENGTH: 13 FT ; DIAMETER: 6 FT A/N: 582067	D358				
REGENERATOR, 4C-14, MDEA, HEIGHT: 75 FT ; DIAMETER: 10 FT 6 IN A/N: 582067	D360				
ABSORBER, 4C-16, MDEA, HEIGHT: 75 FT ; DIAMETER: 10 FT 6 IN A/N: 582067	D1264				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 6: HYDROGEN PRODUCTION UNITS					
ACCUMULATOR, 4C-18, REGENERATOR OVERHEAD, MDEA, HEIGHT: 12 FT ; DIAMETER: 5 FT A/N: 582067	D1265				E336.22
DRUM, 4C-5, SCRUBBER FEED KNOCK OUT, HEIGHT: 7 FT ; DIAMETER: 3 FT A/N: 582067	D2455				
VESSEL, DEGASSER, 4C-8, HEIGHT: 25 FT 6 IN; DIAMETER: 10 FT 6 IN A/N: 582067	D2456				
COLUMN, HIGH TEMPERATURE SHIFT CONVERTER, 4C-12, INTEGRAL TO 4C-11, HEIGHT: 14 FT 2 IN; DIAMETER: 12 FT A/N: 582067	D2457				
VESSEL, LOW TEMPERATURE SEPARATOR, 4C-17, HEIGHT: 9 FT 6 IN; DIAMETER: 4 FT 6 IN A/N: 582067	D2458				
VESSEL, 4C-19, METHANTOR FEED GAS, SCRUBBER, HEIGHT: 16 FT 6 IN; DIAMETER: 3 FT A/N: 582067	D2459				
TANK, 4D-4, CAUSTIC STORAGE, HEIGHT: 6 FT ; DIAMETER: 5 FT A/N: 582067	D2460				
TANK, 4D-3, MDEA FEED, HEIGHT: 24 FT ; DIAMETER: 25 FT A/N: 582067	D2461				
FILTER, 4J-2, MDEA, HEIGHT: 3 FT 4 IN; DIAMETER: 1 FT 4 IN A/N: 582067	D2462				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 6: HYDROGEN PRODUCTION UNITS					
FILTER, 4J-2B, MDEA, HEIGHT: 3 FT 4 IN; DIAMETER: 1 FT 4 IN A/N: 582067	D2489				
VESSEL, SEPARATOR, VAPOR, 4J-11, HEIGHT: 6 FT 8 IN; DIAMETER: 2 FT A/N: 582067	D2463				
VESSEL, ACTIVATED CARBON, 4J-33, LIQUID PHASE, TWO IN PARALLEL, 10,000 LBS EACH, HEIGHT: 11 FT 7 IN; DIAMETER: 7 FT 5 IN A/N: 582067	D2464				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582067	D1815			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 2: HYDROGEN PLANT NO. 2					S2.1, S13.2, S13.5, S15.1, S15.2, S31.2
KNOCK OUT POT, 24C-1, FUEL GAS (INLINE MIXED NATURAL GAS & REFINERY GASES), COMMON TO GAS TURBINE COMBUSTOR (FUEL GAS) & H2 PLANT REACTOR (FEED GAS), HEIGHT: 9 FT 6 IN; DIAMETER: 6 FT A/N: 581982	D2234				
KNOCK OUT POT, 24C-2, FEED GAS, LENGTH: 9 FT 6 IN; DIAMETER: 4 FT 6 IN A/N: 582081	D385				

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
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 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 6: HYDROGEN PRODUCTION UNITS					
VESSEL, SEPARATOR/FILTER, 24J-19, OIL/FEED GAS, HEIGHT: 4 FT ; DIAMETER: 1 FT 8 IN A/N: 582081	D2241				
FILTER, 24-J-13, FUEL GAS A/N: 582081	D1266				
COMPRESSOR, 24K-4A/B, RECIPROCATING, 2 TOTAL IN PARALLEL, 4500-HP EACH, 1ST STAGE, COMMON TO GAS TURBINE (FUEL GAS) & H2 PLANT (FEED GAS) A/N: 581982	D2235				E336.15, H23.34
COMPRESSOR, 24K-4A, FEED GAS, 2 TOTAL, 4500-HP EACH A/N: 582081	D390				H23.34
REACTOR, HDS, 24C-11, LENGTH: 20 FT 6 IN; DIAMETER: 9 FT A/N: 582081	D368				E448.5
REACTOR, 24C-12, ZINC OXIDE, LENGTH: 19 FT 6 IN; DIAMETER: 10 FT A/N: 582081	D369				E448.5
REACTOR, 24C-13, ZINC OXIDE, HEIGHT: 19 FT 6 IN; DIAMETER: 10 FT A/N: 582081	D370				E448.5
REACTOR, 24F-1(R), STEAM/HC REFORMING, TUBULAR TYPE, INTERNALLY INTEGRATED WITH FURNACE 24F-1 A/N: 582081	D2242				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 - (3) Denotes RECLAIM concentration limit
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 - (9) See App B for Emission Limits
 - (2) (2A) (2B) Denotes RECLAIM emission rate
 - (4) Denotes BACT emission limit
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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 6: HYDROGEN PRODUCTION UNITS					
REACTOR, HIGH TEMPERATURE SHIFT, 24C-14, HEIGHT: 21 FT ; DIAMETER: 13 FT A/N: 582081	D371				
REACTOR, LTS REACTOR, 24C-50, HEIGHT: 16 FT 6 IN; DIAMETER: 13 FT A/N: 582081	D1203				
KNOCK OUT POT, 24C-4, NO. 1 LTS EFFLUENT, LENGTH: 9 FT ; DIAMETER: 10 FT A/N: 582081	D386				
KNOCK OUT POT, 24C-25, NO. 2 LTS EFFLUENT, LENGTH: 11 FT ; DIAMETER: 7 FT A/N: 582081	D387				
ABSORBER, PRESSURE SWING, 24C-15 TO 24C-26, 12 TOTAL, HEIGHT: 20 FT 9 IN; DIAMETER: 12 FT 6 IN A/N: 582081	D372				
FILTER, 24J-5A/B, HYDROGEN PRODUCT GAS, 2 TOTAL A/N: 582081	D392				
VESSEL, 24C-7, PSA GAS SURGE, HEIGHT: 67 FT 1 IN; DIAMETER: 12 FT 6 IN A/N: 582081	D2243				
VESSEL, 24C-6, PSA GAS MIX, HEIGHT: 93 FT 8 IN; DIAMETER: 12 FT 6 IN A/N: 582081	D2244				

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
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 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See section J for NESHAP/MACT requirements

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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 6: HYDROGEN PRODUCTION UNITS					
VESSEL, DEAERATOR, 24C-10, VENT TO ATMOSPHERE, HEIGHT: 10 FT ; DIAMETER: 10 FT A/N: 582081	D2245				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582081	D1936			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 3: HYDROGEN PRODUCTION UNITS HEATERS					
HEATER, HYDROGEN PLANT REFORMING, 4F-1, NATURAL GAS, REFINERY GAS, WITH ZEECO BURNER MODEL GLSF10, 527 MMBTU/HR WITH A/N: 582210 BURNER, NATURAL GAS, REFINERY GAS, ZEECO, MODEL GLSF10, WITH LOW NOX BURNER, 136 TOTAL; 527 MMBTU/HR	D367	S1971 S2021	NOX: MAJOR SOURCE**; SOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B61.3, D28.8, D90.12, E193.16, H23.13, K40.4
STACK, EAST A/N: 582210	S1971	D367			
STACK, WEST A/N: 582210	S2021	D367			

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 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 6: HYDROGEN PRODUCTION UNITS					
SELECTIVE CATALYTIC REDUCTION, WITH FIXED BED REACTOR AND HONEYCOMB TYPE CATALYST WITH A/N: 581988 AMMONIA INJECTION	C395	D925 S1732		NH3: 20 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10-1996]	D12.2, D12.8, D28.11, E71.7
System 5: NH3 (Liquidified anhydrous) storage & vaporization					
STORAGE TANK, PRESSURIZED, 24C-27, ANHYDROUS AMMONIA, WITH A VAPOR BALANCE SYSTEM, 1000 GALS; DIAMETER: 3 FT 6 IN; LENGTH: 13 FT WITH A/N: 581916 EVAPORATOR, AMMONIA, 24E-27, ELECTRIC HEATED	D2232				E144.1, K67.13
System 6: FUEL GAS FILTER SEPARATORS					
FILTER, SEPARATOR, 4C-30, REFINERY FUEL GAS, VESSEL TYPE, SERVES HEATER 4F-1, HEIGHT: 10 FT 8 IN; DIAMETER: 2 FT 8 IN A/N: 582153	D2416				S13.2, S15.15, S31.5
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582153	D2417			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
Process 7: HYDROCRACKING UNIT					
System 1: HYDROCRACKING UNIT					
					P13.1
					S4.1, S13.2, S15.1, S15.2, S15.13, S31.2

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 - (3) Denotes RECLAIM concentration limit
 - (5) (5A) (5B) Denotes command and control emission limit
 - (7) Denotes NSR applicability limit
 - (9) See App B for Emission Limits
 - (2) (2A) (2B) Denotes RECLAIM emission rate
 - (4) Denotes BACT emission limit
 - (6) Denotes air toxic control rule limit
 - (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 - (10) See section J for NESHAP/MACT requirements
- ** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

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Process 7: HYDROCRACKING UNIT					P13.1
TANK, 3C-1, FIRST STAGE FEED, HEIGHT: 30 FT ; DIAMETER: 13 FT A/N: 582008	D396				
VESSEL, SEPARATOR, FIRST STAGE HIGH PRESSURE, 3C-3, HEIGHT: 24 FT ; DIAMETER: 7 FT WITH A/N: 582008 TURBINE, 3J-9, 540-HP, GENERATOR, ELECTRIC, PROVIDE POWER TO 1ST STAGE FEED PUMP	D397				
VESSEL, SEPARATOR, SECOND STAGE HIGH PRESSURE, 3C-5, HEIGHT: 27 FT ; DIAMETER: 7 FT A/N: 582008	D398				
TANK, 3C-6, DIMETHYL DISULFIDE, HEIGHT: 18 FT ; DIAMETER: 5 FT A/N: 582008	D399				
VESSEL, SEPARATOR, LOW PRESSURE, 3C-7, HEIGHT: 44 FT ; DIAMETER: 13 FT A/N: 582008	D400				
COLUMN, STABILIZER, 3C-8, HEIGHT: 115 FT 3 IN; DIAMETER: 14 FT 6 IN A/N: 582008	D401				
ACCUMULATOR, 3C-9, STABILIZER OVERHEAD, HEIGHT: 20 FT ; DIAMETER: 8 FT A/N: 582008	D402				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 - (3) Denotes RECLAIM concentration limit
 - (5) (5A) (5B) Denotes command and control emission limit
 - (7) Denotes NSR applicability limit
 - (9) See App B for Emission Limits
 - (2) (2A) (2B) Denotes RECLAIM emission rate
 - (4) Denotes BACT emission limit
 - (6) Denotes air toxic control rule limit
 - (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 - (10) See section J for NESHAP/MACT requirements
- ** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 7: HYDROCRACKING UNIT					P13.1
ACCUMULATOR, 3C-12, RECYCLE SPLITTER OVERHEAD, LENGTH: 36 FT ; DIAMETER: 9 FT A/N: 582008	D403				
VESSEL, DEGASSER, 3C-13, HEIGHT: 12 FT ; DIAMETER: 4 FT A/N: 582008	D404				
KNOCK OUT POT, 3C-23, REGENERATOR GAS, HEIGHT: 8 FT ; DIAMETER: 2 FT A/N: 582008	D411				
VESSEL, SPLITTER, 3C-10, HYDROGEN RECYCLE, HEIGHT: 123 FT 3 IN; DIAMETER: 19 FT A/N: 582008	D2511				
COLUMN, STRIPPER, 3C-11, KEROSENE/HEAVY HYDROCRACKATE, HEIGHT: 36 FT ; DIAMETER: 7 FT A/N: 582008	D2512				
COMPRESSOR, 3K-4, SECOND STAGE REACTOR RECYCLE, CENTRIFUGAL, STEAM DRIVEN WITH A/N: 582008 TURBINE, 3K-4T, 5500-HP	D2513				
REACTOR, FIRST STAGE, 3C-2A, HEIGHT: 76 FT 6 IN; DIAMETER: 6 FT 6 IN A/N: 582008	D425				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 - (3) Denotes RECLAIM concentration limit
 - (5) (5A) (5B) Denotes command and control emission limit
 - (7) Denotes NSR applicability limit
 - (9) See App B for Emission Limits
 - (2) (2A) (2B) Denotes RECLAIM emission rate
 - (4) Denotes BACT emission limit
 - (6) Denotes air toxic control rule limit
 - (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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Process 7: HYDROCRACKING UNIT					P13.1
REACTOR, FIRST STAGE, 3C-2B, HEIGHT: 76 FT 6 IN; DIAMETER: 6 FT 6 IN A/N: 582008	D426				
COMPRESSOR, 3K-3, FIRST STAGE HYDROGEN RECYCLE, CENTRIFUGAL, 2500 HP, ELECTRIC MOTOR DRIVE A/N: 582008	D1915				
REACTOR, SECOND STAGE, 3C-4A, HEIGHT: 85 FT ; DIAMETER: 9 FT 6 IN A/N: 582008	D427				
REACTOR, SECOND STAGE, 3C-4B, HEIGHT: 85 FT ; DIAMETER: 9 FT 6 IN A/N: 582008	D428				
COMPRESSOR, 3K-1C/2C, FIRST AND SECOND STAGE HYDROGEN MAKEUP, 5000 HP EACH, ELECTRIC MOTOR DRIVE A/N: 582008	D1280				
COMPRESSOR, 3K-1A/2A, FIRST & SECOND STAGE HYDROGEN MAKEUP, 5000-HP EACH, MOTOR DRIVE A/N: 582008	D1276				
COMPRESSOR, 3K-1B/2B, FIRST & SECOND STAGE HYDROGEN MAKEUP, 5000-HP EACH, MOTOR DRIVE A/N: 582008	D1278				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 - (3) Denotes RECLAIM concentration limit
 - (5) (5A) (5B) Denotes command and control emission limit
 - (7) Denotes NSR applicability limit
 - (9) See App B for Emission Limits
 - (2) (2A) (2B) Denotes RECLAIM emission rate
 - (4) Denotes BACT emission limit
 - (6) Denotes air toxic control rule limit
 - (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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Process 7: HYDROCRACKING UNIT					P13.1
ACCUMULATOR, 3C-12A, RECYCLE, SPLITTER OVERHEAD, LENGTH: 28 FT ; DIAMETER: 15 FT A/N: 582008	D1552				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582008	D1819			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 2: HYDROCRACKING UNIT HEATERS					
HEATER, 3F-1A, HYDROCRACKING UNIT FIRST STAGE REACTION FEED, NATURAL GAS, REFINERY GAS, WITH LOW NOX BURNER, 17.2 MMBTU/HR WITH A/N: 581890 BURNER, NATURAL GAS, REFINERY GAS, THREE STAGED BURNERS, WITH LOW NOX BURNER, 3 TOTAL; 17.2 MMBTU/HR	D927	S1972	NOX: LARGE SOURCE**; SOX: MAJOR SOURCE**	CO: 400 PPMV (5A) [RULE 1146, 11-17-2000; RULE 1146, 9-5-2008]; CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 40 PPMV (3) [RULE 2012, 5-6-2005]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B61.3, D90.12, D328.1, E193.16, H23.13

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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Process 7: HYDROCRACKING UNIT					P13.1
HEATER, 3F-4, HYDROCRACKER, SPLITTER REBOILER, NATURAL GAS, REFINERY GAS, WITH LOW NOX BURNER, FLUE GAS RECIRCULATION, 73 MMBTU/HR WITH A/N: 581944 BURNER, EIGHT STAGED LOW-NOX BURNERS, WITH LOW NOX BURNER, STAGED COMBUSTION, 73 MMBTU/HR	D931	S1975	NOX: MAJOR SOURCE**; SOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B61.3, C1.3, D90.12, D328.1, E193.16, H23.13
STACK, COMMON TO D930 AND D931 A/N: 581897	S1975	D930 D931			
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581946	D2372			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 3: FUEL GAS FILTER SEPARATORS					S13.2, S15.15, S31.2
FILTER, SEPARATOR, 3C-201, REFINERY FUEL GAS, VESSEL TYPE, WITH DUAL LOWER BARRELS, FOR STORAGE OF THE REMOVED LIQUID, SERVES 4 HEATERS (3F-1A&B, 3F-2A&B), HEIGHT: 9 FT 4 IN; DIAMETER: 1 FT 4 IN A/N: 582154	D2411				E336.20
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582154	D2412			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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Process 7: HYDROCRACKING UNIT					P13.1
FILTER, SEPARATOR, 3J-2, REFINERY FUEL GAS, VESSEL TYPE, SERVES 2 HEATERS (3F-3 & 3F-4), HEIGHT: 8 FT 9 IN; DIAMETER: 1 FT 1 IN A/N: 582154	D2517				
Process 8: ALKYLATION UNIT					P13.1
System 1: MODIFIED HYDROFLUORIC ACID ALKYLATION UNIT					S4.1, S13.2, S15.1, S15.2
TANK, 5C-3, HYDROGEN FLUORIDE ACID, HEIGHT: 45 FT ; DIAMETER: 15 FT A/N: 584433	D448				
COLUMN, ISOSTRIPPER, 5C-5, HEIGHT: 199 FT ; DIAMETER: 15 FT 6 IN A/N: 584433	D449				
COLUMN, DEPROPANIZER, 5C-45, HEIGHT: 102 FT ; DIAMETER: 10 FT A/N: 584433	D450				
COLUMN, HYDROGEN FLUORIDE STRIPPER, 5C-46, HEIGHT: 42 FT 6 IN; DIAMETER: 5 FT A/N: 584433	D452				
TOWER, 5C-48A, PROPANE KOH TREATER, HEIGHT: 16 FT ; DIAMETER: 6 FT A/N: 584433	D453				
TOWER, 5C-48B, PROPANE KOH TREATER, HEIGHT: 16 FT ; DIAMETER: 6 FT A/N: 584433	D454				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
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Process 8: ALKYLATION UNIT					P13.1
COLUMN, ALKYLATE STABILIZER, 5C-16, HEIGHT: 69 FT ; DIAMETER: 8 FT A/N: 584433	D455				
SETTLING TANK, NO. 1, 5C-37, ACID, LENGTH: 52 FT ; DIAMETER: 13 FT A/N: 584433	D458				
SETTLING TANK, NO. 2, 5C-38, ACID, LENGTH: 52 FT ; DIAMETER: 13 FT A/N: 584433	D459				
REGENERATOR, 5C-8, NO. 1 ACID, HEIGHT: 18 FT 6 IN; DIAMETER: 3 FT A/N: 584433	D460				
TOWER, 5C-41A, PROPANE ALUMINA, HEIGHT: 32 FT ; DIAMETER: 9 FT A/N: 584433	D461				
TANK, SETTLER, 5C-10, DEPROPANIZER FEED, LENGTH: 20 FT ; DIAMETER: 7 FT 6 IN A/N: 584433	D464				
VESSEL, RECEIVER, 5C-12, DEPROPANIZER OVERHEAD, LENGTH: 30 FT ; DIAMETER: 10 FT A/N: 584433	D465				
VESSEL, RECEIVER, 5C-6, ISOSTRIPPER OVERHEAD, LENGTH: 58 FT 8 IN; DIAMETER: 14 FT A/N: 584433	D466				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
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Process 8: ALKYLATION UNIT					P13.1
VESSEL, RECEIVER, 5C-17, ALKYLATE STABILIZER OVERHEAD, LENGTH: 20 FT ; DIAMETER: 5 FT A/N: 584433	D467				
VESSEL, REGENERATOR, 5C-39, NO. 2 ACID, HEIGHT: 31 FT ; DIAMETER: 3 FT 6 IN A/N: 584433	D468				
TOWER, 5C-41B, PROPANE ALUMINA, HEIGHT: 32 FT ; DIAMETER: 9 FT A/N: 584433	D469				
STORAGE TANK, 5C-31, ACID, LENGTH: 50 FT ; DIAMETER: 10 FT 2 IN A/N: 584433	D473				
REACTOR, NO. 1, 5E-30 A/N: 584433	D474				
REACTOR, NO. 2, 5E-31 A/N: 584433	D475				
VESSEL, WASHER, 5C-56, ASO, HEIGHT: 33 FT ; DIAMETER: 11 FT A/N: 584433	D2467				
DRUM, 5C-57, ASO SURGE, HEIGHT: 24 FT ; DIAMETER: 8 FT A/N: 584433	D2556				
DRUM, 5C-59, CONDENSATE, KNOCKOUT, HEIGHT: 8 FT ; DIAMETER: 4 FT A/N: 584433	D2468				
EJECTOR, 5H-4A, STEAM A/N: 584433	D2469				

- * (1) (1A) (1B) Denotes RECLAIM emission factor (2) (2A) (2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit
 (5) (5A) (5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 8: ALKYLATION UNIT					P13.1
EJECTOR, 5H-4B, STEAM A/N: 584433	D2470				
EJECTOR, 5H-5A, STEAM A/N: 584433	D2471				
EJECTOR, 5H-5B, STEAM A/N: 584433	D2472				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 584433	D1825			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 3: ALKYLATE WATER WASH UNIT					S7.2, S13.2, S15.1, S15.2
TOWER, 10C-7, ALKYLATE WATER WASH, DIA: 7 FT / 10 FT; H: 43 FT / 17 FT A/N: 581991	D1651				
TOWER, 10C-8, ADDITIVE RECOVERY, DIA: 2 FT 6 IN / 5 FT; H: 15 FT / 10 FT A/N: 581991	D1652				
VESSEL, RECEIVER, 10C-9, OVERHEAD, DIA: 2 FT-10 IN ; L: 9 FT-0 IN TT A/N: 581991	D1653				
VESSEL, DRYER, 10C-10, DIA.: 1 FT / 3 FT; L.: 21 FT-2 IN / 12 FT-7 IN A/N: 581991	D1654				
STORAGE TANK, 10D-1, ADDITIVE, LENGTH: 22 FT ; DIAMETER: 6 FT 6 IN A/N: 581991	D1655				
EJECTOR, 1ST STAGE, 10H-1A/B, HF ADDITIVE DRYER, STEAM JET A/N: 581991	D1659				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
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- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 8: ALKYLATION UNIT					P13.1
EJECTOR, 2ND STAGE, 10H-2A/B, HF ADDITIVE DRYER, STEAM JET A/N: 581991	D1660				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581991	D1827			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 4: DECANter UNIT					S7.3, S13.2, S15.1, S15.2
VESEL, 5C-101, DECANter, ASO / ADDITIVE, LENGTH: 16 FT ; DIAMETER: 4 FT 6 IN A/N: 581992	D1661				E204.4
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581992	D1828			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 5: N-BUTANE (ALKYLATION PRODUCT) TREATING					S7.5, S46.1
TOWER, ALUMINA, 10C-1, HEIGHT: 54 FT ; DIAMETER: 12 FT A/N: 582025	D1192				
POT, VAPORIZER, 10C-2, CONDENSATE, HEIGHT: 4 FT ; DIAMETER: 1 FT 4 IN A/N: 582025	D1193				
VESEL, 10C-3, KOH TREATER, HEIGHT: 50 FT ; DIAMETER: 6 FT A/N: 582025	D1194				E336.21
TOWER, 10C-11, ALUMINA, HEIGHT: 54 FT ; DIAMETER: 12 FT A/N: 582025	D1995				
VESEL, 10C-12, KOH TREATER, HEIGHT: 50 FT ; DIAMETER: 6 FT A/N: 582025	D1996				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
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Process 8: ALKYLATION UNIT					P13.1
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582025	D1957			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 6: GASEOUS ACID NEUTRALIZATION UNIT					S4.1, S13.2, S15.1, S15.2
SCRUBBER, RELIEF GAS, 5C-53 A/N: 582152	D933				
SCRUBBER, EVACUATION, 5C-58 A/N: 582152	D934				
TANK, 5D-1, SPENT CAUSTIC, FIXED ROOF, HEIGHT: 18 FT ; DIAMETER: 25 FT A/N: 582152	D935	C2250		VOC: 50 PPMV (4) [RULE 1303(a)-BACT, 5-10-1996]	
CARBON ADSORBER, ACTIVATED CARBON, 2 IN SERIES, 200 LBS EACH A/N: 582152	C2250	D935			D90.7, E153.5, E193.15, K67.17
TANK, ACID DAY, 5D-5 A/N: 582152	D936				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582152	D2374			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 7: EMERGENCY HF ACID DELUGE & NEUTRALIZATION					
SUMP, 5R5-D1SPILL CONTAINMENT, 14 IN HIGH CURBED, AREA AROUND ACID PUMPS WITH OVERHEAD, H2O SPRAY NOZZLES (108 PERIPHERAL @ 52 GPM EACH & 4 TOP @ 105 GPM EACH A/N: 582141	D947				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
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- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
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Process 8: ALKYLATION UNIT					P13.1
SUMP, DELUGE WATER COLLECTION & CAUSTIC NEUTRALIZATION, 120,000 GALS CAPACITY, CONCRETE WITH LINER A/N: 582141	D937				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582141	D1826			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 8: EMERGENCY HF ACID EVACUATION & NEUTRALIZATION					
TANK, ACID EVACUATION, 5C-54, HEIGHT: 40 FT ; DIAMETER: 14 FT A/N: 582143	D939	C940			
SCRUBBER, ACID EVACUATION SYSTEM (AES) RELIEF GAS, 5C-55, LENGTH: 67 FT 6 IN; DIAMETER: 7 FT 6 IN A/N: 582143	C940	D939			E193.3
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582143	D2383			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
Process 9: GAS PRODUCTION PROCESS					P13.1, P13.2
System 1: SATURATED GAS PLANT					S4.1, S13.2, S15.1, S15.2, S15.8, S18.2
KNOCK OUT POT, FEED GAS COMPRESSOR, 7C-1, HEIGHT: 10 FT ; DIAMETER: 4 FT A/N: 582170	D482				
ABSORBER, ISOBUTANE, 7C-2, HEIGHT: 113 FT ; DIAMETER: 5 FT 6 IN A/N: 582170	D483				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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Process 9: GAS PRODUCTION PROCESS					P13.1, P13.2
ABSORBER, AMINE, 7C-5, HEIGHT: 56 FT ; DIAMETER: 4 FT A/N: 582170	D484				
COLUMN, DEBUTANIZER, 7C-6, HEIGHT: 75 FT ; DIAMETER: 12 FT A/N: 582170	D485				
ACCUMULATOR, 7C-7, DEBUTANIZER OVERHEAD, HEIGHT: 24 FT ; DIAMETER: 9 FT A/N: 582170	D486				
TANK, SURGE, 7C-8, DEPROPANIZER FEED, HEIGHT: 18 FT ; DIAMETER: 8 FT A/N: 582170	D487				
COLUMN, DEPROPANIZER, 7C-9, HEIGHT: 109 FT ; DIAMETER: 11 FT A/N: 582170	D488				
ACCUMULATOR, 7C-10, DEPROPANIZER OVERHEAD, LENGTH: 20 FT ; DIAMETER: 12 FT A/N: 582170	D489				
COLUMN, NAPHTHA SPLITTER, 7C-11, HEIGHT: 75 FT ; DIAMETER: 12 FT A/N: 582170	D490				
ACCUMULATOR, 7C-12, NAPHTHA SPLITTER OVERHEAD, LENGTH: 25 FT ; DIAMETER: 6 FT A/N: 582170	D491				
TANK, SURGE, 7C-13, LENGTH: 18 FT ; DIAMETER: 6 FT A/N: 582170	D492				

- * (1) (1A) (1B) Denotes RECLAIM emission factor (2) (2A) (2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit
 (5) (5A) (5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (9) See App B for Emission Limits (10) See section J for NESHAP/MACT requirements
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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 9: GAS PRODUCTION PROCESS					P13.1, P13.2
VESSEL, DEA CONTACTOR, 7C-15, HEIGHT: 40 FT ; DIAMETER: 8 FT A/N: 582170	D493				
VESSEL, ROTARY DISC CONTACTOR, 7C-17, HEIGHT: 37 FT 6 IN; DIAMETER: 7 FT A/N: 582170	D494				
VESSEL, COALESCER, 7C-19, HEIGHT: 8 FT ; DIAMETER: 2 FT 6 IN A/N: 582170	D495				
KNOCK OUT POT, 7C-4, DRY GAS, HEIGHT: 7 FT ; DIAMETER: 3 FT 6 IN A/N: 582170	D496				
SETTLING TANK, 7C-18, OIL WATER-WASH, LENGTH: 17 FT ; DIAMETER: 10 FT 6 IN A/N: 582170	D497				
COMPRESSOR, 7K-2, FEEDGAS, CENTRIFUGAL, AXIAL FLOW WITH PACKED GLAND, 800 HP MOTOR A/N: 582170	D1298				H23.34
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582170	D1830			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
DRUM, 7C-16, CAUSTIC PREWASH, HEIGHT: 17 FT ; DIAMETER: 9 FT 6 IN A/N: 582170	D2488				
EJECTOR, 7H-2, JET, SERVES COMPRESSOR 7K-2 A/N: 582170	D2554				

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Process 9: GAS PRODUCTION PROCESS					P13.1, P13.2
System 2: UNSATURATED GAS PLANT					S4.1, S13.2, S15.1, S15.2
VESSEL, RECEIVER, INTERSTAGE, 8C-1, HEIGHT: 15 FT ; DIAMETER: 7 FT A/N: 582011	D498				
VESSEL, RECEIVER, HIGH PRESSURE, 8C-2, LENGTH: 35 FT ; DIAMETER: 13 FT A/N: 582011	D499				
ABSORBER, AMINE, 8C-5, HEIGHT: 53 FT ; DIAMETER: 7 FT 6 IN A/N: 582011	D500				
COLUMN, DEBUTANIZER, 8C-6, HEIGHT: 90 FT 6 IN; DIAMETER: 14 FT A/N: 582011	D501				
ACCUMULATOR, 8C-7, DEBUTANIZER OVERHEAD, HEIGHT: 25 FT ; DIAMETER: 10 FT A/N: 582011	D502				
COLUMN, RERUN, 8C-8, HEIGHT: 58 FT ; DIAMETER: 14 FT A/N: 582011	D503				
VESSEL, RECEIVER, RERUN OVERHEAD, 8C-9, LENGTH: 20 FT ; DIAMETER: 10 FT A/N: 582011	D504				
VESSEL, DRYER-DEPROPANIZER, 8C-12, HEIGHT: 74 FT ; DIAMETER: 8 FT A/N: 582011	D505				

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 (7) Denotes NSR applicability limit (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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Process 9: GAS PRODUCTION PROCESS					P13.1, P13.2
VESSEL, RECEIVER, DRYER-DEPROPANIZER OVERHEAD, 8C-13, HEIGHT: 15 FT ; DIAMETER: 6 FT 6 IN A/N: 582011	D506				
SETTLING TANK, 8C-15, OIL WATER WASH, LENGTH: 30 FT ; DIAMETER: 12 FT A/N: 582011	D507				
VESSEL, RECEIVER, INTERSTAGE, 8C-23, HEIGHT: 15 FT ; DIAMETER: 7 FT A/N: 582011	D508				
ABSORBER, MAIN, 8C-33, HEIGHT: 131 FT 6 IN; DIAMETER: 10 FT A/N: 582011	D509				
COMPRESSOR, 8K-1, WET GAS, CENTRIFUGAL, STEAM DRIVE A/N: 582011	D525				H23.34
COMPRESSOR, 8K-2, WET GAS, CENTRIFUGAL, STEAM DRIVE A/N: 582011	D542				H23.34
ABSORBER, 8C-25, SPONGE OIL, HEIGHT: 62 FT 6 IN; DIAMETER: 6 FT A/N: 582011	D2486				
DRUM, 8C-26, SOUR GAS KNOCK OUT, HEIGHT: 15 FT ; DIAMETER: 7 FT 6 IN A/N: 582011	D2487				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 - (3) Denotes RECLAIM concentration limit
 - (5) (5A) (5B) Denotes command and control emission limit
 - (7) Denotes NSR applicability limit
 - (9) See App B for Emission Limits
 - (2) (2A) (2B) Denotes RECLAIM emission rate
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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

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Process 9: GAS PRODUCTION PROCESS					P13.1, P13.2
POT, FCC GASOLINE WATER COALESCER, 8C-37, LENGTH: 15 FT ; DIAMETER: 8 FT A/N: 582011	D1208				E204.3
POT, ABSORBER TOP PUMPDOWN COALESCER, 8C-38, HEIGHT: 10 FT 1 IN; DIAMETER: 5 FT A/N: 582011	D1209				E204.3
POT, ABSORBER MID PUMPDOWN COALESCER, 8C-39, HEIGHT: 12 FT ; DIAMETER: 7 FT A/N: 582011	D1210				E204.3
COLUMN, STRIPPER, 8C-4, HEIGHT: 54 FT 6 IN; DIAMETER: 14 FT A/N: 582011	D1303				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582011	D1831			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 5: DEISOBUTANIZER					S13.2, S15.1, S15.2
COLUMN, DEISOBUTANIZER, 10C-4, HEIGHT: 185 FT 6 IN; DIAMETER: 9 FT A/N: 582025	D1195				
ACCUMULATOR, 10C-5, DEISOBUTANIZER OVERHEAD ACCUMULATOR, LENGTH: 27 FT ; DIAMETER: 9 FT A/N: 582025	D1196				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582025	D1829			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34

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 - (3) Denotes RECLAIM concentration limit
 - (5) (5A) (5B) Denotes command and control emission limit
 - (7) Denotes NSR applicability limit
 - (9) See App B for Emission Limits
 - (2) (2A) (2B) Denotes RECLAIM emission rate
 - (4) Denotes BACT emission limit
 - (6) Denotes air toxic control rule limit
 - (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

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Process 9: GAS PRODUCTION PROCESS					P13.1, P13.2
System 6: ISOBUTANE (ALKYLATION FEED) TREATING					S13.2, S15.2, S15.15, S31.2
VESSEL, COALESCER, 11C-10, ISOBUTANE, LENGTH: 10 FT 9 IN; DIAMETER: 4 FT A/N: 582144	D479				
DRYER, MOLECULAR SIEVES ADSORBENT, ISOBUTANE (ALKYLATION FEED), 2 TOTAL FOR ALTERNATING REGENERATION, LENGTH: 18 FT ; DIAMETER: 4 FT A/N: 582144	D2130				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582144	D2123				H23.34
Process 11: TREATING/STRIPPING PROCESS					P13.1
System 1: LPG (OLEFIN - ALKYLATION FEED) MEROX TREATING					S13.2, S15.1, S15.2
ABSORBER, 9C-1, UNSATURATE C3/C4 AMINE, HEIGHT: 60 FT ; DIAMETER: 10 FT A/N: 581959	D579				
VESSEL, PREWASH, 9C-2, UNSATURATE C3/C4, CAUSTIC, HEIGHT: 20 FT ; DIAMETER: 11 FT 6 IN A/N: 581959	D580				
VESSEL, EXTRACTOR, 9C-3, UNSATURATE C3/C4, HEIGHT: 58 FT ; DIAMETER: 8 FT 6 IN A/N: 581959	D581				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 11: TREATING/STRIPPING PROCESS					P13.1
SETTLING TANK, 9C-4, UNSATURATE C3/C4 CAUSTIC, HEIGHT: 29 FT 6 IN; DIAMETER: 7 FT 6 IN A/N: 581959	D582				
FILTER, 9C-5, UNSATURATE C3/C4 SAND, HEIGHT: 19 FT 6 IN; DIAMETER: 11 FT 6 IN A/N: 581959	D583				
VESSEL, SEPARATOR, 9C-7, UNSATURATE C3/C4, DISULFIDE, HEIGHT: 20 FT 6 IN; DIAMETER: 3 FT A/N: 581959	D584				
VESSEL, SEPARATOR, 9C-8, UNSATURATE C3/C4 DISULFIDE, HEIGHT: 19 FT ; DIAMETER: 4 FT A/N: 581959	D585			SOX: 500 PPMV (5) [RULE 407, 4-2-1982]	E336.9
FILTER, SAND, 9C-9, UNSATURATE C3/C4 DISULFIDE, HEIGHT: 7 FT ; DIAMETER: 2 FT A/N: 581959	D586				
VESSEL, OXIDIZER, 9C-12, UNSATURATE C3/C4, HEIGHT: 20 FT 6 IN; DIAMETER: 2 FT 6 IN A/N: 581959	D587				
VESSEL, SEPARATOR, 9C-13, SATURATE C3/C4 DISULFIDE, HEIGHT: 19 FT ; DIAMETER: 4 FT A/N: 581959	D594			SOX: 500 PPMV (5) [RULE 407, 4-2-1982]	E336.9

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 - (3) Denotes RECLAIM concentration limit
 - (5) (5A) (5B) Denotes command and control emission limit
 - (7) Denotes NSR applicability limit
 - (9) See App B for Emission Limits
 - (2) (2A) (2B) Denotes RECLAIM emission rate
 - (4) Denotes BACT emission limit
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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

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Process 11: TREATING/STRIPPING PROCESS					P13.1
FILTER, SAND, 9C-14, SATURATE C3/C4 DISULFIDE, HEIGHT: 7 FT ; DIAMETER: 2 FT A/N: 581959	D595				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581959	D1983			VOC: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 2: GASOLINE MEROX TREATING					S13.2, S15.1, S15.2
REACTOR, 12C-1, MEROX, HEIGHT: 20 FT ; DIAMETER: 12 FT A/N: 582158	D588				
POT, DRAIN, 12C-3, REACTOR, HEIGHT: 3 FT ; DIAMETER: 1 FT 6 IN A/N: 582158	D2192				
REACTOR, 12C-2, MEROX, HEIGHT: 20 FT ; DIAMETER: 12 FT A/N: 582158	D589				
POT, DRAIN, 12C-4, REACTOR, HEIGHT: 3 FT ; DIAMETER: 1 FT 6 IN A/N: 582158	D2193				
KNOCK OUT POT, FLARE, 12C-6, HEIGHT: 9 FT 9 IN; DIAMETER: 3 FT A/N: 582158	D590				
VESSEL, COALESCER, 12J-4, FCCU GASOLINE, HEIGHT: 6 FT 8 IN; DIAMETER: 3 FT 11 IN A/N: 582158	D1311				

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 - (7) Denotes NSR applicability limit
 - (9) See App B for Emission Limits
 - (2) (2A) (2B) Denotes RECLAIM emission rate
 - (4) Denotes BACT emission limit
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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 11: TREATING/STRIPPING PROCESS					P13.1
VESSEL, COALESCER, 12J-3, FCCU GASOLINE, HEIGHT: 8 FT ; DIAMETER: 5 FT 2 IN A/N: 582158	D2146				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582158	D1838			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 3: FUEL GAS TREATING/MEA ABSORPTION					S4.1, S13.2, S15.1, S31.3
VESSEL, 27C-01A, OFF-GAS SEPARATOR (COKER OFF-GAS, COKER WET GAS), LENGTH: 23 FT 6 IN; DIAMETER: 7 FT A/N: 582163	D1314				
VESSEL, 27C-01B, OFF-GAS SEPARATOR (COKER OFF-GAS, COKER WET GAS), LENGTH: 23 FT 6 IN; DIAMETER: 7 FT A/N: 582163	D2214				
VESSEL, 27C-06A, NO. 1 AMINE CONTACTORS, HEIGHT: 86 FT ; DIAMETER: 6 FT A/N: 582163	D1318				
TANK, VENT, 27C-12A, HEIGHT: 6 FT ; DIAMETER: 4 FT 4 IN A/N: 582163	D1326				

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 - (2) (2A) (2B) Denotes RECLAIM emission rate
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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 11: TREATING/STRIPPING PROCESS					P13.1
VESSEL, NO. 2 AMINE, CONSISTING OF 2 SECTIONS WITH A/N: 582163 VESSEL, CONTACTOR, 27C-18A, NO. 2, MEA, TOP SECTION, HEIGHT: 94 FT ; DIAMETER: 5 FT VESSEL, KNOCK OUT POT, 27C-4A, BOTTOM SECTION, HEIGHT: 11 FT ; DIAMETER: 5 FT	D1333				
TANK, FLASH, 27C-19A, RICH AMINE, HEIGHT: 42 FT ; DIAMETER: 12 FT A/N: 582163	D1335				
SUMP, 27D-3, RICH MEA, 3000 GALS; DIAMETER: 8 FT ; DEPTH: 8 FT A/N: 582163	D2215	C2219		VOC: 500 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10-1996]	
CARBON ADSORBER, 27J-5A/B, CHARCOAL, DIA: 1 FT 10 IN, H: 2 FT 10 IN, 2 IN PARALLEL, 200 LBS A/N: 582163	C2219	D2215			D90.1, E128.1, E153.6, K171.6
FILTER, 27J-4, RICH MEA SUMP EFFLUENT, HEIGHT: 8 FT 1 IN; DIAMETER: 1 FT 2 IN A/N: 582163	D2216				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582163	D1842			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 4: MEA regeneration					S4.1, S13.2, S15.1, S15.4, S31.3

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 (3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit
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 (7) Denotes NSR applicability limit (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 11: TREATING/STRIPPING PROCESS					P13.1
VESSEL, REGENERATOR, 28C-50A, RICH MEA, HEIGHT: 70 FT ; DIAMETER: 7 FT 6 IN A/N: 582020	D2220				
VESSEL, REGENERATOR OVERHEAD ACCUMULATOR/REFLUX, 28C-51A, HEIGHT: 18 FT ; DIAMETER: 6 FT A/N: 582020	D2221				
TANK, SURGE, 28D-50A, LEAN MEA, 1690 BBL; DIAMETER: 22 FT ; HEIGHT: 25 FT A/N: 582020	D2222	C2223		VOC: 500 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10-1996]	
CARBON ADSORBER, 28J-57A/B, CHARCOAL, DIA: 1 FT 10 IN, H: 2 FT 10 IN, 2 IN SERIES, 200 LBS A/N: 582020	C2223	D2222			D90.1, E128.1, E153.6, K171.6
FILTER, CARTRIDGE TYPE, 28J-50A, LEAN MEA SURGE TANK EFFLUENT, PARTICULATE FILTER, HEIGHT: 6 FT 5 IN; DIAMETER: 3 FT 1 IN A/N: 582020	D2224				
FILTER, CHARCOAL, 28J-51A, LEAN MEA SURGE TANK EFFLUENT, HEIGHT: 8 FT ; DIAMETER: 6 FT 6 IN A/N: 582020	D2225				
FILTER, GUARD, 28J-52A, LEAN MEA SURGE TANK EFFLUENT, HEIGHT: 7 FT ; DIAMETER: 2 FT 4 IN A/N: 582020	D2226				

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|--|---|
| (1) (1A) (1B) Denotes RECLAIM emission factor | (2) (2A) (2B) Denotes RECLAIM emission rate |
| (3) Denotes RECLAIM concentration limit | (4) Denotes BACT emission limit |
| (5) (5A) (5B) Denotes command and control emission limit | (6) Denotes air toxic control rule limit |
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Process 11: TREATING/STRIPPING PROCESS					P13.1
FILTER, VANE MIST TYPE, 28J-54A, FOAM, RECLAIMED MEA, HEIGHT: 3 FT 11 IN; DIAMETER: 1 FT 2 IN A/N: 582020	D2227				
SUMP, 28D-52, RICH MEA, DEPTH: 8 FT ; DIAMETER: 8 FT A/N: 582020	D2228	C2229		VOC: 500 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10-1996]	
CARBON ADSORBER, 28J-56A/B, CHARCOAL, DIA: 1 FT 10 IN, H: 2 FT 10 IN, 2 IN SERIES, 200 LBS A/N: 582020	C2229	D2228			D90.1, E128.1, E153.6, K171.6
FILTER, CARTRIDGE TYPE, 28J-55, RICH MEA SUMP EFFLUENT, HEIGHT: 3 FT 4 IN; DIAMETER: 1 FT 2 IN A/N: 582020	D2230				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582020	D2231			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 5: DEA ABSORPTION SYSTEM					S13.2, S15.1
TANK, SURGE, 75C-201, LEAN AMINE, LENGTH: 30 FT ; DIAMETER: 12 FT A/N: 581910	D612				
KNOCK OUT POT, 75C-202, LENGTH: 9 FT 8 IN; DIAMETER: 4 FT 6 IN A/N: 581910	D613				
ABSORBER, 75C-203, AMINE, HEIGHT: 59 FT ; DIAMETER: 5 FT 6 IN A/N: 581910	D614				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 11: TREATING/STRIPPING PROCESS					P13.1
ABSORBER, 75C-205, AMINE, LENGTH: 45 FT ; DIAMETER: 5 FT 6 IN A/N: 581910	D615				
FILTER, RICH DEA, 75J-10 & 75J-11, TWO IN PARALLEL A/N: 581910	D2527				
SUMP, 75G-205, RICH DEA, 480 GALS; WIDTH: 4 FT ; DIAMETER: 15 FT ; LENGTH: 4 FT ; DEPTH: 4 FT A/N: 581910	D2528				
TANK, SURGE, 75C-206, RICH DEA, LENGTH: 63 FT ; DIAMETER: 15 FT A/N: 581910	D616				
TANK, SURGE, 75C-209, RICH DEA, LENGTH: 63 FT ; DIAMETER: 15 FT A/N: 581910	D617				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581910	D1840			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 6: DEA REGENERATION, TRAIN A					S13.2, S15.1, S15.4
COLUMN, REGENERATOR, 28C-1A, HEIGHT: 72 FT ; DIAMETER: 11 FT A/N: 581912	D627				
ACCUMULATOR, 28C-2A, REGENERATOR OVERHEAD, HEIGHT: 12 FT ; DIAMETER: 8 FT A/N: 581912	D628				
TANK, SURGE, 28D-1, LEAN DEA, 2000 BBL; DIAMETER: 25 FT ; HEIGHT: 24 FT A/N: 581912	D629				E336.1

- * (1) (1A) (1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See section J for NESHAP/MACT requirements

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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 11: TREATING/STRIPPING PROCESS					P13.1
SUMP, 28R-1, LEAN DEA, LENGTH: 6 FT ; DIAMETER: 6 FT ; DEPTH: 6 FT A/N: 581912	D630				
SUMP, 28R-8, DEA/CONDENSATE, WIDTH: 6 FT ; DEPTH: 8 FT ; LENGTH: 12 FT A/N: 581912	D631				
FILTER, 28C-4, DEA, HEIGHT: 4 FT ; DIAMETER: 3 FT 6 IN A/N: 581912	D2503				
FILTER, 28C-23, HEIGHT: 7 FT 8 IN; DIAMETER: 8 FT A/N: 581912	D2504				
FILTER, 28J-38, HEIGHT: 4 FT 9 IN; DIAMETER: 1 FT 1 IN A/N: 581912	D2505				
FILTER, 28J-37, HEIGHT: 4 FT 9 IN; DIAMETER: 1 FT 1 IN A/N: 581912	D2506				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581912	D1845			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 7: DEA REGENERATION, TRAIN B					S13.2, S15.1, S15.4
COLUMN, REGENERATOR, 28C-1B, HEIGHT: 72 FT ; DIAMETER: 11 FT A/N: 581913	D632				
ACCUMULATOR, 28C-2B, REGENERATOR OVERHEAD, LENGTH: 12 FT ; DIAMETER: 8 FT A/N: 581913	D633				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 - (3) Denotes RECLAIM concentration limit
 - (5) (5A) (5B) Denotes command and control emission limit
 - (7) Denotes NSR applicability limit
 - (9) See App B for Emission Limits
 - (2) (2A) (2B) Denotes RECLAIM emission rate
 - (4) Denotes BACT emission limit
 - (6) Denotes air toxic control rule limit
 - (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 - (10) See section J for NESHAP/MACT requirements
- ** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 11: TREATING/STRIPPING PROCESS					P13.1
TANK, 28D-3, SURGE, LEAN DEA, 2000 BBL; DIAMETER: 25 FT ; HEIGHT: 24 FT A/N: 581913	D657				E336.1
FILTER, 28C-8, LEAN AMINE CARTRIDGE, HEIGHT: 7 FT ; DIAMETER: 3 FT 6 IN A/N: 581913	D2507				
FILTER, 28C-9, DEA CARBON AMINE, HEIGHT: 12 FT 6 IN; DIAMETER: 8 FT A/N: 581913	D2508				
FILTER, 28C-10, LEAN AMINE AFTER, HEIGHT: 6 FT 10 IN; DIAMETER: 1 FT 4 IN A/N: 581913	D2509				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581913	D1987			VOC: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 8: SOUR WATER SURGE AND HANDLING					S13.2, S15.1
TANK, SURGE, 75C-101, SOUR-WATER, LENGTH: 23 FT ; DIAMETER: 9 FT A/N: 581901	D603				
TANK, SURGE, 75C-204, SOUR-WATER, LENGTH: 30 FT ; DIAMETER: 12 FT A/N: 581901	D606				
VESSEL, PUMP SUCTION, 75C-110, SOUR WATER, HEIGHT: 9 FT ; DIAMETER: 5 FT A/N: 581901	D608				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See section J for NESHAP/MACT requirements

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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 11: TREATING/STRIPPING PROCESS					P13.1
TANK, EXTERNAL FLOATING ROOF, SURGE, 300X-16, TREATED WATER, 30000 BBL; DIAMETER: 75 FT ; HEIGHT: 43 FT WITH A/N: 581901 FLOATING ROOF, PONTOON PRIMARY SEAL	D609				H23.2
TANK, EXTERNAL FLOATING ROOF, SURGE, 300X-17, TREATED WATER, 30000 BBL; DIAMETER: 75 FT ; HEIGHT: 43 FT WITH A/N: 581901 FLOATING ROOF, PONTOON PRIMARY SEAL	D610				H23.2
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581901	D1839			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 9: SOUR WATER STRIPPING UNIT A					S13.2, S15.1, S15.4
COLUMN, SOUR WATER STRIPPER A, 28C-30A, HEIGHT: 66 FT ; DIAMETER: 6 FT A/N: 581909	D636				
ACCUMULATOR, 28C-31A, SOUR WATER STRIPPER A OVERHEAD, LENGTH: 15 FT ; DIAMETER: 5 FT A/N: 581909	D637				

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See section J for NESHAP/MACT requirements

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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 11: TREATING/STRIPPING PROCESS					P13.1
SUMP, 28R-30, SOUR WATER, WIDTH: 6 FT ; DEPTH: 8 FT ; LENGTH: 12 FT A/N: 581909	D638				
ACCUMULATOR, 28C-33A, CONDENSATE, HEIGHT: 3 FT 9 IN; DIAMETER: 2 FT A/N: 581909	D2480				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581909	D1988				H23.34
System 10: SOUR WATER STRIPPING UNIT B					S13.2, S15.1, S15.4
COLUMN, SOUR WATER STRIPPER B, 28C-30B, HEIGHT: 66 FT ; DIAMETER: 6 FT A/N: 581911	D639				
ACCUMULATOR, 28C-31B, SOUR WATER STRIPPER B OVERHEAD, LENGTH: 15 FT ; DIAMETER: 5 FT A/N: 581911	D640				
ACCUMULATOR, 28C-33B, CONDENSATE, HEIGHT: 3 FT 9 IN; DIAMETER: 2 FT A/N: 581911	D2481				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581911	D2482			HAP: (10)	H23.34
System 11: SOUR WATER STRIPPING UNIT C					S13.2, S15.1, S15.4

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See section J for NESHAP/MACT requirements
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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 11: TREATING/STRIPPING PROCESS					P13.1
COLUMN, 28C-36, SOUR WATER STRIPPER C, HEIGHT: 87 FT ; DIAMETER: 7 FT A/N: 582189	D642				
ACCUMULATOR, 28C-37, SOUR WATER STRIPPER C OVERHEAD, LENGTH: 16 FT 6 IN; DIAMETER: 5 FT 6 IN A/N: 582189	D643				
System 12: Fuel gas treating Unit 27/MEROX mercaptan-extraction & oil absorption					S13.2, S15.1
COLUMN, MERCAPTAN-EXTRACTION (COMBINATION COLUMN), 27C-09A, CAUSTIC WASH, HEIGHT: 132 FT 6 IN; DIAMETER: 6 FT A/N: 581974	D1320				
KNOCK OUT POT, 27C-05A, OIL ABSORBER FEED, HEIGHT: 10 FT 6 IN; DIAMETER: 5 FT A/N: 581974	D1316				
VESSEL, MERCAPTAN-OIL ABSORBER, 27C-15A, KEROSENE, HEIGHT: 61 FT ; DIAMETER: 5 FT A/N: 581974	D2246				
VESSEL, FLASH, 27C-29A, RICH KEROSENE, HEIGHT: 10 FT 6 IN; DIAMETER: 5 FT A/N: 581974	D2247				E336.9
VESSEL, OXIDIZER/CAUSTIC, 27C-10A, HEIGHT: 34 FT ; DIAMETER: 3 FT 6 IN A/N: 581974	D1322				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See section J for NESHAP/MACT requirements
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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 11: TREATING/STRIPPING PROCESS					P13.1
POT, ADDITION, 27C-14A, OXIDIZER CATALYST, HEIGHT: 3 FT ; DIAMETER: 1 FT 10 IN A/N: 581974	D1330				
VESSEL, SEPARATOR, 27C-11A, DISULFIDE, LENGTH: 33 FT ; DIAMETER: 6 FT 6 IN A/N: 581974	D1324	C626			E336.17
FILTER, SAND, 27C-27A, KEROSENE/DISULFIDE, HEIGHT: 7 FT ; DIAMETER: 3 FT A/N: 581974	D1341				E336.9
VESSEL, DEGASSING, 27C-13A, SPENT CAUSTIC, HEIGHT: 10 FT ; DIAMETER: 2 FT 4 IN A/N: 581974	D1328				E336.9
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581974	D2249			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
Process 12: SULFUR PRODUCTION PROCESS					P13.1
System 1: CLAUS TRAIN A					S13.6, S15.1, S15.2, S18.3
KNOCK OUT POT, 29C-05A, SOUR WATER STRIPPER, ACID GAS, HEIGHT: 18 FT ; DIAMETER: 6 FT A/N: 581948	D651				
KNOCK OUT POT, 29C-04A, AMINE ACID GAS, HEIGHT: 22 FT 6 IN, DIAMETER: 5 FT 6 IN A/N: 581948	D663				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 - (3) Denotes RECLAIM concentration limit
 - (5) (5A) (5B) Denotes command and control emission limit
 - (7) Denotes NSR applicability limit
 - (9) See App B for Emission Limits
 - (2) (2A) (2B) Denotes RECLAIM emission rate
 - (4) Denotes BACT emission limit
 - (6) Denotes air toxic control rule limit
 - (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 - (10) See section J for NESHAP/MACT requirements
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SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 12: SULFUR PRODUCTION PROCESS					P13.1
FURNACE, 29F-1A, REACTION, NATURAL GAS, FOR START-UPS AND SHUTDOWNS, 41 MMBTU/HR A/N: 581948	D666				
REACTOR, 29C-06A, NATURAL GAS, THREE STAGE CLAUS, 41 MMBTU/HR A/N: 581948	D2007				
BOILER, REACTION FURNACE WASTE HEAT, UNFIRED, 29E-01A A/N: 581948	D1944				
HEATER, NO. 1 REHEATER, 29F-2A, FOR START UPS AND SHUTDOWNS, 4 MMBTU/HR A/N: 581948	D667				
CONDENSER, 29E-02A, NO. 1, SULFUR, HEIGHT: 20 FT ; DIAMETER: 6 FT 8 IN A/N: 581948	D1909				
CONDENSER, 29E-03A, NO. 2, SULFUR, HEIGHT: 18 FT ; DIAMETER: 6 FT 8 IN A/N: 581948	D1910				
CONDENSER, 29E-05A, NO. 3, SULFUR, HEIGHT: 18 FT ; DIAMETER: 6 FT 8 IN A/N: 581948	D1911				
CONDENSER, 29E-07A, NO. 4, SULFUR, HEIGHT: 18 FT ; DIAMETER: 6 FT 8 IN A/N: 581948	D1912			H2S: 10 PPMV (5) [RULE 468, 10-8-1976]; HAP: (10) [40CFR 63 Subpart UUU, #4, 4-20-2006]; SOX: 250 PPMV (5A) [40CFR 60 Subpart J, 6-24-2008]	

- * (1) (1A) (1B) Denotes RECLAIM emission factor
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (3) Denotes RECLAIM concentration limit
- (4) Denotes BACT emission limit
- (5) (5A) (5B) Denotes command and control emission limit
- (6) Denotes air toxic control rule limit
- (7) Denotes NSR applicability limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (9) See App B for Emission Limits
- (10) See section J for NESHAP/MACT requirements

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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 12: SULFUR PRODUCTION PROCESS					P13.1
PIT, ACCUMULATOR, 29R-1A, SULFUR, WIDTH: 12 FT 6 IN; DEPTH: 8 FT ; LENGTH: 55 FT A/N: 581948	D668	C952		H2S: 10 PPMV (5) [RULE 468, 10-8-1976]; HAP: (10) [40CFR 63 Subpart UUU, #4, 4-20-2006]	
BLOWER, 29K-3A, SULFUR PIT VENT, 2HP A/N: 581948	D2466				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581948	D1849			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 2: CLAUS TRAIN B					S13.6, S15.1, S15.2, S18.3
KNOCK OUT POT, 29C-05B, SOUR WATER STRIPPER, ACID GAS, HEIGHT: 18 FT ; DIAMETER: 6 FT A/N: 581951	D652				
KNOCK OUT POT, 29C-04B, AMINE ACID GAS, HEIGHT: 22 FT 6 IN; DIAMETER: 5 FT 6 IN A/N: 581951	D664				
FURNACE, REACTION, 29F-1B, NATURAL GAS, FOR STARTUP AND SHUTDOWN, 41 MMBTU/HR A/N: 581951	D669				
REACTOR, 29C-06B; NATURAL GAS, THREE STAGE CLAUS, 41 MMBTU/HR A/N: 581951	D2008				
BOILER, REACTION FURNACE WASTE HEAT, UNFIRED, 29E-01B A/N: 581951	D1945				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See section J for NESHAP/MACT requirements

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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 12: SULFUR PRODUCTION PROCESS					P13.1
HEATER, NO. 1 REHEATER, 29F-2B, FOR START UP AND SHUTDOWN, 5 MMBTU/HR A/N: 581951	D670				
CONDENSER, 29E-02B, NO. 1, SULFUR, HEIGHT: 20 FT ; DIAMETER: 6 FT 8 IN A/N: 581951	D1913				
CONDENSER, 29E-03B, NO. 2, SULFUR, HEIGHT: 18 FT ; DIAMETER: 6 FT 8 IN A/N: 581951	D1914				
CONDENSER, 29E-05B, NO. 3, SULFUR, HEIGHT: 18 FT ; DIAMETER: 6 FT 8 IN A/N: 581951	D1942				
CONDENSER, 29E-7B, NO. 4, SULFUR, HEIGHT: 18 FT ; DIAMETER: 6 FT 8 IN A/N: 581951	D1943			H2S: 10 PPMV (5) [RULE 468, 10-8-1976]; HAP: (10) [40CFR 63 Subpart UUU, #4, 4-20-2006]; SOX: 250 PPMV (5A) [40CFR 60 Subpart J, 6-24-2008]	
PIT, ACCUMULATOR, 29R-1B, SULFUR, WIDTH: 12 FT 6 IN; DEPTH: 8 FT ; LENGTH: 55 FT A/N: 581951	D671	C952		H2S: 10 PPMV (5) [RULE 468, 10-8-1976]; HAP: (10) [40CFR 63 Subpart UUU, #4, 4-20-2006]	
BLOWER, 29K-3B, SULFUR PIT VENT, 2HP A/N: 581951	D2490				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581951	D1850			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 3: TAIL GAS TREATMENT UNIT SERVING CLAUS TRAIN A, REDUCTION CONTROL					S13.6, S15.1, S15.2, S18.12

- * (1) (1A) (1B) Denotes RECLAIM emission factor (2) (2A) (2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit
 (5) (5A) (5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (9) See App B for Emission Limits (10) See section J for NESHAP/MACT requirements

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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

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The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 12: SULFUR PRODUCTION PROCESS					P13.1
CONDENSER, DIRECT CONTACT SUPERHEATER, 29C-1A, HEIGHT: 60 FT ; DIAMETER: 9 FT 6 IN A/N: 582073	D655	C952			E336.23
GENERATOR, REDUCING GAS, 29F-3A, NATURAL GAS A/N: 582073	D1947				
REACTOR, HYDROGENATION/HYDROLYSIS, 29C-7A, HEIGHT: 18 FT ; DIAMETER: 12 FT A/N: 582073	D1946				
VESSEL, CONTACTOR, 29C-2A, AMINE, HEIGHT: 77 FT 6 IN; DIAMETER: 8 FT A/N: 582073	D653	C952		HAP: (10) [40CFR 63 Subpart UUU, #5B, 4-20-2006]	E336.23
REGENERATOR, 29C-3A, AMINE, HEIGHT: 83 FT 6 IN; DIAMETER: 4 FT 6 IN A/N: 582073	D1366				
VESSEL, 29C-12A, REGENERATOR REFLUX, HEIGHT: 8 FT ; DIAMETER: 3 FT 6 IN A/N: 582073	D1368				
TANK, SURGE, 29D-1A, LEAN AMINE, LEAN AMINE, HEIGHT: 18 FT ; DIAMETER: 12 FT A/N: 582073	D661				
SUMP, AMINE, 29D-4A, LENGTH: 6 FT ; DIAMETER: 6 FT A/N: 582073	D1949				

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit
 (4) Denotes BACT emission limit
 (5) (5A) (5B) Denotes command and control emission limit
 (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (9) See App B for Emission Limits
 (10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 12: SULFUR PRODUCTION PROCESS					P13.1
STORAGE TANK, CAUSTIC, 29D-2, COMMON TO TAIL GAS TREATMENT UNIT TRAINS A & B, 10000 GALS; DIAMETER: 12 FT ; HEIGHT: 12 FT A/N: 582073	D1948	C952			
DRUM, 29C-16A, AMINE WASH, HEIGHT: 13 FT 6 IN; DIAMETER: 8 FT A/N: 582073	D2491				
FILTER, 29J-1A, DESUPERHEATER, HEIGHT: 4 FT 11 IN; DIAMETER: 10 IN A/N: 582073	D2492				
FILTER, 29J-2A, LEAN AMINE, CARTRIDGE, HEIGHT: 4 FT ; DIAMETER: 11 IN A/N: 582073	D2493				
FILTER, 29J-3A, LEAN AMINE, CARTRIDGE, HEIGHT: 4 FT ; DIAMETER: 2 FT A/N: 582073	D2494				
FILTER, 29J-4A, DESUPERHEATER, HEIGHT: 4 FT 11 IN; DIAMETER: 11 IN A/N: 582073	D2495				
FILTER, 29J-9A, AMINE, HEIGHT: 3 FT ; DIAMETER: 11 IN A/N: 582073	D2496				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582073	D1851			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See section J for NESHAP/MACT requirements

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SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 12: SULFUR PRODUCTION PROCESS					P13.1
System 4: TAIL GAS UNIT SERVING CLAUS TRAIN B, REDUCTION CONTROL					S13.6, S15.1, S15.2, S18.12
CONDENSER, DIRECT CONTACT SUPERHEATER, 29C-1B, HEIGHT: 60 FT ; DIAMETER: 9 FT 6 IN A/N: 581954	D656	C952			E336.23
GENERATOR, REDUCING GAS, 29F-3B, NATURAL GAS FIRED A/N: 581954	D665				
REACTOR, HYDROGENATION/HYDROLYSIS, 29C-7B, HEIGHT: 18 FT ; DIAMETER: 12 FT A/N: 581954	D1950				
VESSEL, CONTACTOR, 29C-2B, AMINE, HEIGHT: 69 FT 6 IN; DIAMETER: 9 FT A/N: 581954	D654	C952		HAP: (10) [40CFR 63 Subpart UUU, #5B, 4-20-2006]	E336.23
REGENERATOR, 29-C-3B, AMINE, HEIGHT: 65 FT ; DIAMETER: 5 FT 6 IN A/N: 581954	D1367				
VESSEL, 29C-12B, REGENERATOR REFLUX, HEIGHT: 8 FT ; DIAMETER: 3 FT 6 IN A/N: 581954	D1369				
TANK, SURGE, SURGE, 29D-1B, LEAN AMINE, LEAN AMINE, HEIGHT: 20 FT ; DIAMETER: 13 FT A/N: 581954	D662				
SUMP, 29D- 4B, AMINE, LENGTH: 6 FT ; DIAMETER: 6 FT A/N: 581954	D1952				

- * (1) (1A) (1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
- (10) See section J for NESHAP/MACT requirements

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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 12: SULFUR PRODUCTION PROCESS					P13.1
DRUM, 29C-16B, AMINE WASH, HEIGHT: 13 FT 6 IN; DIAMETER: 8 FT A/N: 581954	D2497				
FILTER, 29J-1B, DESUPERHEATER, HEIGHT: 3 FT 10 IN; DIAMETER: 11 IN A/N: 581954	D2498				
FILTER, 29J-2B, LEAN AMINE, CARTRIDGE, HEIGHT: 4 FT ; DIAMETER: 11 IN A/N: 581954	D2499				
FILTER, 29J-3B, LEAN AMINE, CARTRIDGE, HEIGHT: 4 FT ; DIAMETER: 2 FT A/N: 581954	D2500				
FILTER, 29J-4B, DESUPERHEATER, HEIGHT: 4 FT 11 IN; DIAMETER: 11 IN A/N: 581954	D2501				
FILTER, 29J-9B, AMINE, HEIGHT: 3 FT ; DIAMETER: 11 IN A/N: 581954	D2502				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581954	D1852			HAP: (10) [40CFR 63 Subpart CC, #5A, 5-25-2001]	H23.34
System 5: TAIL GAS INCINERATORS					
FILTER, 29J-8, FUEL GAS, HEIGHT: 4 FT 4 IN; DIAMETER: 11 IN A/N: 582164	D2515				

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See section J for NESHAP/MACT requirements

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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 12: SULFUR PRODUCTION PROCESS					P13.1
DRUM, 29C-27, DISULFIDE SEPARATOR VENT GAS, HEIGHT: 8 FT ; DIAMETER: 1 FT 6 IN A/N: 582164	D2516				
OXIDIZER, THERMAL, 29F-4, PROCESS GAS, REFINERY GAS, WITH LOW NOX BURNERS, 100 MMBTU/HR WITH A/N: 582164 BURNER, NATURAL GAS, REFINERY GAS, WITH LOW NOX BURNER, 100 MMBTU/HR	C952	D653 D654 D655 D656 D668 D671 D1948 S1953	NOX: MAJOR SOURCE**; SOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	C8.8, D28.25, D82.1, E193.16, H23.13
STACK A/N: 582164	S1953	C952			
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582164	D1853			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 6: SULFUR STORAGE					S15.5
PIT, STORAGE, 28R- 137, SULFUR, ACID-RESISTANT CONCRETE, 9163 BBLs, WITH 2 PRV (28D-10A/B) EMERGENCY VENTING TO ATMOSPHERE, WIDTH: 48 FT ; DEPTH: 14 FT 3 IN; LENGTH: 75 FT A/N: 581973	D1375	C2393 C2394		SOX: 500 PPMV (5) [RULE 407, 4-2-1982]	E336.18
Process 13: LOADING/UNLOADING PROCESS					P13.1
System 1: LPG/LSR RAIL CAR LOADING/UNLOADING RACK					S7.5, S15.1, S15.2, S31.2

* (1) (1A) (1B) Denotes RECLAIM emission factor . (2) (2A) (2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit
 (5) (5A) (5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (9) See App B for Emission Limits (10) See section J for NESHAP/MACT requirements

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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 13: LOADING/UNLOADING PROCESS					P13.1
LOADING AND UNLOADING ARM, LIGHT STRAIGHT RUN, LIQUIFIED PETROLEUM GAS, 16 TOTAL; DIAMETER: 2 IN A/N: 582167	D675				E193.5, E193.6, E336.2, E336.7, K67.4, K67.5
LOADING AND UNLOADING ARM, LIGHT STRAIGHT RUN, LIQUIFIED PETROLEUM GAS, 8 TOTAL; DIAMETER: 2 IN A/N: 582167	D1994				C1.53, E336.6, K67.4
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582167	D1855			HAP: (10) [40CFR 63 Subpart CC, #5A, 5-25-2001]	H23.25, H23.34
POT, KNOCKOUT POT, 51C-110, LSR RACK PSV, HEIGHT: 3 FT ; DIAMETER: 2 FT A/N: 582167	D2444				
System 2: LPG TANK TRUCK LOADING/UNLOADING RACK					S15.1, S15.2
LOADING ARM, LIQUIFIED PETROLEUM GAS, 2 TOTAL A/N: 582133	D1470				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582133	D1955			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 3: GASOLINE LOADING RACK NO. 1					S7.5, S13.7, S15.1, S15.2, S31.2
LOADING ARM, BOTTOM, LOADING RACK NO. 1, GASOLINE, WITH DRYBREAK COUPLERS, 6 TOTAL; DIAMETER: 4 IN A/N: 582031	D1526			HAP: 35 MG/L (8) [40CFR 60 Subpart XX, 12-19-2003]; VOC: 0.08 LBS/1000 GAL (5) [RULE 462, 5-14-1999]	C1.47

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See section J for NESHAP/MACT requirements
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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 13: LOADING/UNLOADING PROCESS					P13.1
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582031	D1527			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 4: GASOLINE LOADING RACK NO. 3					S7.5, S13.7, S15.1, S15.2, S31.2
LOADING ARM, TANK TRUCK, LOADING RACK NO. 3, GASOLINE, 6 TOTAL; DIAMETER: 4 IN A/N: 582032	D1520			HAP: 35 MG/L (8) [40CFR 60 Subpart XX, 12-19-2003]; VOC: 0.08 LBS/1000 GAL (5) [RULE 462, 5-14-1999]	C1.47
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582032	D1956			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 5: SPENT CAUSTIC LOADING & CONTROL SYSTEMS					
LOADING ARM, SPENT CAUSTIC, RAILCAR/TANK TRUCK, 2 TOTAL A/N: 582006	D1474	D1560			
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582006	D1475			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
KNOCK OUT POT, CONDENSIBLES, 500 GALLON, CAUSTIC A/N: 582006	D1560	D1474 C1561			
CARBON ADSORBER, CONDENSIBLES, CAUSTIC A/N: 582006	C1561	D1560			D90.1, E128.1, E153.2
System 6: LIQUID SULFUR TRUCK LOADING					S15.5
LOADING ARM, TOP, ONE 2" OVERHEAD SWING-TYPE, WITH 3" FLEXIBLE VAPOR RECOVERY HOSE, DIAMETER: 2 IN A/N: 581972	D644	C2393 C2394		SOX: 500 PPMV (5) [RULE 407, 4-2-1982]	E336.18

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit
 (4) Denotes BACT emission limit
 (5) (5A) (5B) Denotes command and control emission limit
 (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (9) See App B for Emission Limits
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The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 16: STEAM GENERATION PROCESS					
BLOWER, 30K-2, FORCED DRAFT FAN, COMMON TO RESH AIR & CIRCULATED FLUE GAS, 700-HP					
SELECTIVE CATALYTIC REDUCTION, SERVING BOILER 30F-2 A/N: 581902	C1241	D1239		NH3: 20 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10-1996]	D12.2, D12.8, D28.11, E71.7, E448.7, K40.3
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581965	D2009			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 2: ANHYDROUS AMMONIA STORAGE AND VAPORIZATION					
STORAGE TANK, PRESSURIZED, 30C-3, ANHYDROUS AMMONIA, WITH PRV VENT TO ATMOSPHERE SET TO AT LEAST 265 PSIG, 1000 GALS; DIAMETER: 3 FT 5 IN; LENGTH: 13 FT WITH A/N: 581956 EVAPORATOR, 30E-5, AMMONIA, ELECTRIC HEATED	D2341				E71.12, K67.13
System 3: FUEL GAS FILTER SEPARATORS					
KNOCK OUT POT, 30C-4, FUEL GAS MIX, COMMON TO BOILERS 30F-1 & 30F-2, HEIGHT: 8 FT 9 IN; DIAMETER: 3 FT 6 IN A/N: 582155	D2418				S13.2, S15.15, S31.5

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 - (3) Denotes RECLAIM concentration limit
 - (5) (5A) (5B) Denotes command and control emission limit
 - (7) Denotes NSR applicability limit
 - (9) See App B for Emission Limits
 - (2) (2A) (2B) Denotes RECLAIM emission rate
 - (4) Denotes BACT emission limit
 - (6) Denotes air toxic control rule limit
 - (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 - (10) See section J for NESHAP/MACT requirements
- ** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 16: STEAM GENERATION PROCESS					
FILTER, SEPARATOR, 30J-3, REFINERY FUEL GAS, VESSEL TYPE, WITH A LOWER BARREL, FOR STORAGE OF THE REMOVED LIQUID, SERVES BOILER 30F-1, HEIGHT: 6 FT 11 IN; DIAMETER: 1 FT A/N: 582155	D2419				
FILTER, SEPARATOR, 30J-4, REFINERY FUEL GAS, VESSEL TYPE, WITH A LOWER BARREL, FOR STORAGE OF THE REMOVED LIQUID, SERVES BOILER 30F-2, HEIGHT: 6 FT 11 IN; DIAMETER: 1 FT A/N: 582155	D2420				
FILTER, SEPARATOR, 75J-7, REFINERY FUEL GAS, VESSEL TYPE, WITH A LOWER BARREL, FOR STORAGE OF THE REMOVED LIQUID, SERVES BOILER 75F-1 A/N: 581924	D2421				
FILTER, SEPERATOR, 2J-57, REFINERY FUEL GAS, VESSEL TYPE WITH A LOWER BARREL FOR STORAGE OF REMOVED LIQUID, HEIGHT: 9 FT 11 IN; DIAMETER: 1 FT 8 IN A/N: 582079	D2536				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582155	D2422			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See section J for NESHAP/MACT requirements

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SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions* And Requirements	Conditions
Process 16: STEAM GENERATION PROCESS					
FUGITIVE EMISSIONS, MISCELLANEOUS, SERVING D2536 (FGF 2J-57) A/N: 582079	D2537			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 4: APC System					
CO OXIDATION CATALYST, CO CATALYST REACTOR FOR BOILER 30F-1, PEERLESS MFG, WITH PLATINUM TYPE CATALYST,, WIDTH: 8 FT 8 IN; HEIGHT: 15 FT 2 3/8IN; LENGTH: 2 FT 1/4 IN A/N: 581968	C2451	D1236			
CO OXIDATION CATALYST, CO CATALYST REACTOR FOR BOILER 30F-2, PEERLESS MFG, WITH PLATINUM TYPE CATALYST,, WIDTH: 8 FT 8 IN; HEIGHT: 15 FT 2 3/8IN; LENGTH: 2 FT 1/4 IN A/N: 581970	C2454	D1239			
Process 17: PETROLEUM MISCELLANEOUS PROCESSES					
System 1: BUTANE SYSTEM					
COMPRESSOR, 55K-1, FULLER MODEL CB30, ELECTRIC MOTOR, 15 HP, 60,000 CU.FT./DAY, WITH NITROGEN BARRIER FLUID SEAL SYSTEM A/N: 582087	D1556				H23.34
System 2: JET FUEL FINISHING SYSTEM					
FILTER, CLAY TREATER, 55C-6 & 55C-7, KEROSENE, IN PARALLEL, HEIGHT: 22 FT ; DIAMETER: 10 FT A/N: 582174	D2519				S31.5

- * (1) (1A) (1B) Denotes RECLAIM emission factor
- (3) Denotes RECLAIM concentration limit
- (5) (5A) (5B) Denotes command and control emission limit
- (7) Denotes NSR applicability limit
- (9) See App B for Emission Limits
- (2) (2A) (2B) Denotes RECLAIM emission rate
- (4) Denotes BACT emission limit
- (6) Denotes air toxic control rule limit
- (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
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Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 17: PETROLEUM MISCELLANEOUS PROCESSES					
INTERNAL COMBUSTION ENGINE, EMERGENCY FIRE, DIESEL FUEL, CATERPILLAR, MODEL 3406C DITA, 460 BHP A/N: 582001	D1785		NOX: PROCESS UNIT**; SOX: PROCESS UNIT**	CO: 2.5 GRAM/BHP-HR DIESEL (4) [RULE 1303(a)(1)-BACT, 5-10-1996]; NOX: 6.9 GRAM/BHP-HR DIESEL (4) [RULE 2005, 5-6-2005]; NOX: 469 LBS/1000 GAL DIESEL (1) [RULE 2012, 5-6-2005]; PM: (9) [RULE 404, 2-7-1986]; PM10: 0.38 GRAM/BHP-HR DIESEL (4) [RULE 1303(a)(1)-BACT, 5-10-1996]; SO2: 6.24 LBS/1000 GAL DIESEL (1) [RULE 2011, 5-6-2005]; VOC: 1. GRAM/BHP-HR DIESEL (4) [RULE 1303(a)(1)-BACT, 5-10-1996]	B61.2, C1.15, C1.69, D12.4, D135.1, K67.1
INTERNAL COMBUSTION ENGINE, EMERGENCY FIRE, 67G-4C, CARB DIESEL FUEL, CUMMINS, MODEL CFP9E-F30 (QSL9 SERIES), WITH CHARGE AIR COOLED, TURBOCHARGER, 323 HP A/N: 582078	D2428		NOX: PROCESS UNIT**; SOX: PROCESS UNIT**	CO: 2.6 GRAM/BHP-HR (4) [RULE 1303(a)(1)-BACT, 5-10-1996]; NOX: 128 LBS/1000 GAL (1) [RULE 2012, 5-6-2005]; NOX + ROG: 3 GRAM/BHP-HR (4) [RULE 1303(a)(1)-BACT, 5-10-1996; RULE 2005, 6-3-2011]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.15 GRAM/BHP-HR (4) [RULE 1303(a)(1)-BACT, 5-10-1996]; SOX: 6.24 LBS/1000 GAL (1) [RULE 2011, 5-6-2005]	B61.7, C1.71, D135.1, E71.16, H23.37, I297.1, I297.2, K67.21
System 5: REFINERY FUEL GAS SYSTEM					S13.2, S15.1
VESSEL, 64C-4, FUEL GAS MIX, HEIGHT: 10 FT ; DIAMETER: 10 FT A/N: 581989	D838				

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| <ul style="list-style-type: none"> * (1) (1A) (1B) Denotes RECLAIM emission factor (3) Denotes RECLAIM concentration limit (5) (5A) (5B) Denotes command and control emission limit (7) Denotes NSR applicability limit (9) See App B for Emission Limits | <ul style="list-style-type: none"> (2) (2A) (2B) Denotes RECLAIM emission rate (4) Denotes BACT emission limit (6) Denotes air toxic control rule limit (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.) (10) See section J for NESHAP/MACT requirements |
|--|--|

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FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

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The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 17: PETROLEUM MISCELLANEOUS PROCESSES					
KNOCK OUT POT, 53C-16, EDISON DRYERS, LENGTH: 108 FT ; DIAMETER: 24 FT A/N: 581989	D2445				
KNOCK OUT POT, 53C-17, EDISON DRYERS, LENGTH: 108 FT ; DIAMETER: 24 FT A/N: 581989	D2446				
FILTER, REFINERY FUEL GAS, OFF PLOT, 11 TOTAL, HEIGHT: 6 FT 6 IN; DIAMETER: 1 FT 8 IN A/N: 581989	D868				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581989	D869				H23.34
System 6: EMERGENCY POWER GENERATION					
INTERNAL COMBUSTION ENGINE, EMERGENCY POWER, 24J-06, DIESEL FUEL, CATERPILLAR, MODEL 3306DI, WITH AFTERCOOLER, TURBOCHARGER, 345 HP A/N: 581900	D394		NOX: PROCESS UNIT**; SOX: PROCESS UNIT**	NOX: 469 LBS/1000 GAL DIESEL (1) [RULE 2012, 5-6-2005]; PM: (9) [RULE 404, 2-7-1986]; SOX: 6.24 LBS/1000 GAL DIESEL (1) [RULE 2011, 5-6-2005]	B61.2, C1.15, C1.70, D12.4, D135.1, K67.1
INTERNAL COMBUSTION ENGINE, EMERGENCY POWER, 29J-5, DIESEL FUEL, CATERPILLAR, MODEL 3306 DJ, CATERPILLAR, WITH AFTERCOOLER, TURBOCHARGER, 245 HP A/N: 581990	D1686		NOX: PROCESS UNIT**; SOX: PROCESS UNIT**	NOX: 469 LBS/1000 GAL DIESEL (1) [RULE 2012, 5-6-2005]; PM: (9) [RULE 404, 2-7-1986]; SOX: 6.24 LBS/1000 GAL DIESEL (1) [RULE 2011, 5-6-2005]	B61.2, C1.15, C1.70, D12.4, D135.1, K67.1

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See section J for NESHAP/MACT requirements
 ** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 17: PETROLEUM MISCELLANEOUS PROCESSES					
INTERNAL COMBUSTION ENGINE, EMERGENCY POWER, DIESEL FUEL, GENERAC CORPOARATION, MODEL 40DTA-SD075, WITH AFTERCOOLER, TURBOCHARGER, 114 BHP A/N: 582002	D1786		NOX: PROCESS UNIT**; SOX: PROCESS UNIT**	CO: 0.78 GRAM/BHP-HR DIESEL (4) [RULE 1303(a)(1)-BACT, 5-10-1996]; NOX: 5.884 GRAM/BHP-HR DIESEL (4) [RULE 2005, 5-6-2005]; NOX: 469 LBS/1000 GAL DIESEL (1) [RULE 2012, 5-6-2005]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.328 GRAM/BHP-HR DIESEL (4) [RULE 1303(a)(1)-BACT, 5-10-1996]; SOX: 0.184 GRAM/BHP-HR DIESEL (4) [RULE 2005, 5-6-2005]; SOX: 6.24 LBS/1000 GAL DIESEL (1) [RULE 2011, 5-6-2005]; VOC: 0.648 GRAM/BHP-HR DIESEL (4) [RULE 1303(a)(1)-BACT, 5-10-1996]	B61.2, C1.15, C1.70, D12.4, D135.1, K67.1
System 7: PROPANE TRANSFER FACILITY					
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582202	D1888			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 8: Odorizing System Serving LPG Rail Car and Tank Truck Rack					
TANK, HOLDING, 52C-107, ETHYL MERCAPTAN, SERVING LPG TANK TRUCK RACK, 500 GALS; DIAMETER: 3 FT 1.4 IN; LENGTH: 9 FT 11 IN A/N: 582036	D2196				E144.1

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit
 (4) Denotes BACT emission limit
 (5) (5A) (5B) Denotes command and control emission limit
 (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (9) See App B for Emission Limits
 (10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 17: PETROLEUM MISCELLANEOUS PROCESSES					
TANK, HOLDING, 51C-111, ETHYL MERCAPTAN, 250 GALS; DIAMETER: 2 FT 6 IN; LENGTH: 7 FT 10 IN A/N: 582038	D2197				E144.1
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582035	D1889				H23.34
System 12: SLUDGE TRANSFER ODOR CONTROL					
CARBON ADSORBER, 55-GALLON DRUM, SERVING VACUUM TRUCK AT API SEPARATOR A/N: 582023	C1729				E71.5
System 13: FUEL STORAGE AND DISPENSING					
STORAGE TANK, ABOVEGROUND, CONTAINMENT SOLUTIONS, HOOVER VAULT TANK, (VR-302-C), RECTANGULAR, EQUIPPED WITH A HUSKY 5885 PRESSURE/VACUUM RELIEF VALVE, AND, 2000 GALS; WIDTH: 6 FT 11 IN; HEIGHT: 4 FT 7 IN; LENGTH: 11 FT 10 IN WITH A/N: 582105 VAPOR RETURN LINE, VAPOR RETURN LINE, A MORRISON BROTHERS PHASE I ENHANCED VAPOR RECOVERY (EVR) SYSTEM (VR-402-B)	D2544				D182.8, D330.1, J109.1, J373.2, J373.4, K67.23, K67.24, K67.25

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 17: PETROLEUM MISCELLANEOUS PROCESSES					
TANK, WITH 6075 GALLON, FLEXIBLE CONTAINMENT BLADDER, 56D-11, LENGTH: 16 FT 2 IN; DIAMETER: 8 FT A/N: 581999	C1784	D1783			
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582000	D1794			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
SUMP, WASH WATER COLLECTION SERVING A MACHINE SHOP WASH PAD, THREE COMPARTMENTS, CONCRETE WITH 6 IN. WALLS, FIXED COVER, WITH ACTIVATED CARBON ADSORPTION, SUBMERGED FILLING, 6434 GALS; WIDTH: 10 FT 10 IN; DEPTH: 8 FT ; LENGTH: 18 FT 6 IN A/N: 582148	D2136	C2135		VOC: 500 PPMV (5) [RULE 1176, 9-13-1996; 40CFR 61 Subpart FF, 12-4-2003]	E71.8, K67.22
CARBON ADSORBER, TOTAL OF 2, CONNECTED IN SERIES, EACH 180 LBS A/N: 582148	C2135	D2136			D90.6, E128.1, E153.4
Process 18: ELECTRICITY GENERATION					
System 1: COGENERATION SYSTEM					
KNOCK OUT POT, 24C-1, FUEL GAS (INLINE MIXED NATURAL GAS & REFINERY GASES), COMMON TO GAS TURBINE COMBUSTOR (FUEL GAS) & H2 PLANT REACTOR (FEED GAS), HEIGHT: 9 FT 6 IN; DIAMETER: 6 FT A/N: 581982	D2234				S15.1, S31.2

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (3) Denotes RECLAIM concentration limit
 (4) Denotes BACT emission limit
 (5) (5A) (5B) Denotes command and control emission limit
 (6) Denotes air toxic control rule limit
 (7) Denotes NSR applicability limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (9) See App B for Emission Limits
 (10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 18: ELECTRICITY GENERATION					
COMPRESSOR, 24K-4A/B, RECIPROCATING, 2 TOTAL IN PARALLEL, 4500-HP EACH, 1ST STAGE, COMMON TO GAS TURBINE (FUEL GAS) & H2 PLANT (FEED GAS) A/N: 581982	D2235				E336.15, H23.34
VESSEL, SEPARATOR, 24C-45, FUEL GAS, HEIGHT: 3 FT 11 IN; DIAMETER: 1 FT A/N: 581982	D2236				
VESSEL, COALESCER, 24C-68A/B, FUEL GAS, 2 TOTAL IN PARALLEL, HEIGHT: 8 FT 8 IN; DIAMETER: 1 FT 2 IN A/N: 581982	D2237				
TURBINE, 24J-1, COGENERATION SYSTEM, BUTANE, LIQUIFIED PETROLEUM GAS, NATURAL GAS, REFINERY GAS, GE MODEL 52614P, DRIVING A 22.83 MW GENERATOR, 316 MMBTU/HR A/N: 581982	D926	D925	NOX: MAJOR SOURCE**; SOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 42 LBS/LB NATURAL GAS (7) [RULE 2005, 6-3-2011]; NOX: 160 PPMV (8) [40CFR 60 Subpart GG, 2-24-2006]; PM: 0.01 GRAINS/SCF (5) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; PM: 0.1 GRAINS/SCF (5B) [RULE 409, 8-7-1981]; PM: 11 LBS/HR (5A) [RULE 475, 10-8-1976; RULE 475, 8-7-1978]; SO2: 20 PPMV (8A) [40CFR 60 Subpart J, 6-24-2008]; SO2: 150 PPMV (8) [40CFR 60 Subpart GG, 2-24-2006]	A99.4, A195.1, A327.1, B61.4, B61.6, D28.23, D82.3, D82.4, D90.3, D90.17, H23.15

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See section J for NESHAP/MACT requirements
 ** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 18: ELECTRICITY GENERATION					
TURBINE, 24J-2, UNFIRED, STEAM TURBINE WITH A/N: 581982 GENERATOR, ELECTRIC, 19.3 MW	D2239				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581982	D1811			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
Process 19: AIR POLLUTION CONTROL PROCESS					
System 1: REFINERY EMERGENCY RELIEF SYSTEM					S13.2, S18.1
FLARE, ELEVATED WITH STEAM INJECTION, WEST, 65F-3, HEIGHT: 200 FT ; DIAMETER: 4 FT A/N: 584480	C891			CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; HAP: (10) [40CFR 63 Subpart CC, #7, 7-13-2016]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B61.5, B61.9, D12.6, D12.10, D323.2, E193.16, H23.13, H23.35, H23.40
FLARE, ELEVATED WITH STEAM INJECTION, EAST, 65F-4, HEIGHT: 200 FT ; DIAMETER: 4 FT A/N: 584481	C892			CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; HAP: (10) [40CFR 63 Subpart CC, #7, 7-13-2016]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	B61.5, B61.9, D12.6, D12.10, D323.2, E193.16, H23.13, H23.35, H23.40

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 19: AIR POLLUTION CONTROL PROCESS					
TANK, FLARE, 65C-21, HIGH PRESSURE SURGE, HEIGHT: 64 FT 4 IN; DIAMETER: 10 FT A/N: 581995	D898				
TANK, FLARE, 65C-22, LOW PRESSURE SURGE, HEIGHT: 64 FT 4 IN; DIAMETER: 10 FT A/N: 581995	D899				
KNOCK OUT POT, STANDBY FLARE, 65C-2, OUT OF SERVICE, LENGTH: 40 FT ; DIAMETER: 10 FT 2 IN A/N: 581995	D1383				
POT, 65C-14, PRIMARY SEAL MOLECULAR SEAL, HEIGHT: 14 FT 6 IN; DIAMETER: 6 FT A/N: 581995	D1384				
KNOCK OUT POT, FLARE, 65C-19, (HYDROCARBON), HEIGHT: 76 FT ; DIAMETER: 10 FT A/N: 581995	D1591				
KNOCK OUT POT, FLARE, 65C-20, (HYDROCARBON), HEIGHT: 76 FT ; DIAMETER: 10 FT A/N: 581995	D1592				
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 581995	D1891			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 3: Coker Offgas/Central Vapor Recovery Compressor System					S7.5, S13.2, S15.1, S15.14, S18.13

- * (1) (1A) (1B) Denotes RECLAIM emission factor
 - (3) Denotes RECLAIM concentration limit
 - (5) (5A) (5B) Denotes command and control emission limit
 - (7) Denotes NSR applicability limit
 - (9) See App B for Emission Limits
 - (2) (2A) (2B) Denotes RECLAIM emission rate
 - (4) Denotes BACT emission limit
 - (6) Denotes air toxic control rule limit
 - (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 - (10) See section J for NESHAP/MACT requirements
- ** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM Source Type/ Monitoring Unit	Emissions * And Requirements	Conditions
Process 19: AIR POLLUTION CONTROL PROCESS					
COMPRESSOR, COKER OFF-GAS, 22K-32, 4500 HP MOTOR DRIVER A/N: 582109	D980				H23.34
COMPRESSOR, 22K-36, VAPOR RECOVERY GAS, RECIPROCATING, 1500 HP MOTOR A/N: 582109	D981				E71.6, H23.34
COMPRESSOR, VAPOR RECOVERY GAS, RECIPROCATING, 22K-37 A/N: 582109	D982				E71.6, H23.34
COMPRESSOR, VAPOR RECOVERY GAS, RECIPROCATING, 22K-38 A/N: 582109	D983				E71.6, H23.34
COMPRESSOR, VAPOR RECOVERY GAS, RECIPROCATING, 22K-39 A/N: 582109	D984				E71.6, H23.34
COMPRESSOR, 22K-40, COKER BLOWDOWN GAS, RECIPROCATING, 1500 HP MOTOR A/N: 582109	D985				H23.34
COMPRESSOR, 22K-41, COKER BLOWDOWN GAS, RECIPROCATING, 1500 HP MOTOR A/N: 582109	D986				H23.34
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: 582109	D1892			HAP: (10) [40CFR 63 Subpart CC, #5A, 6-23-2003]	H23.34
System 5: EAST BUTANE REFRIGERATION SYSTEM					
ACCUMULATOR, BUTANE, LENGTH: 8 FT ; DIAMETER: 3 FT A/N: 582171	D1555				

* (1) (1A) (1B) Denotes RECLAIM emission factor
 (3) Denotes RECLAIM concentration limit
 (5) (5A) (5B) Denotes command and control emission limit
 (7) Denotes NSR applicability limit
 (9) See App B for Emission Limits
 (2) (2A) (2B) Denotes RECLAIM emission rate
 (4) Denotes BACT emission limit
 (6) Denotes air toxic control rule limit
 (8) (8A) (8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)
 (10) See section J for NESHAP/MACT requirements

** Refer to section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	463
VOC	District Rule	1149
VOC	District Rule	1178

[RULE 1149, 5-2-2008; RULE 1178, 4-7-2006; RULE 463, 11-4-2011]

[Systems subject to this condition : Process 15, System 6]

S13.13 All devices under this system are subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
HAPs	40CFR61, SUBPART	FF

[40CFR 61 Subpart FF, 12-4-2003]

[Systems subject to this condition : Process 17, System 17]

S15.1 The vent gases from all affected devices of this process/system shall be vented as follows:

All emergency vent gases shall be directed to a blowdown flare system except Devices IDs D35, D57-D62, D68, D71, D86-D91, D98, D152, D237, D349, D360, D629, D630, D631, D638, D657, D668, D671, D1503-D1505, D1250, D1507, D2145, D2465 that vent to the atmosphere.

This process/system shall not be operated unless the blowdown flare system is in full use and has a valid permit to receive vent gases from this system.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Systems subject to this condition : Process 1, System 1, 2, 3, 4, 7; Process 2, System 1, 2, 4, 5; Process 3, System 1, 5, 7; Process 4, System 1, 3, 5; Process 5, System 1, 2; Process 6, System 1, 2; Process 7, System 1; Process 8, System 1, 2, 3, 4, 6; Process 9, System 1, 2, 5; Process 11, System 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12; Process 12, System 1, 2, 3, 4; Process 13, System 1, 2, 3, 4; Process 17, System 5, 8; Process 18, System 1; Process 19, System 3]

S15.2 The vent gases from all affected devices of this process/system shall be vented as follows:

All vent gases under normal operating conditions shall be directed to a vapor recovery system.

This process/system shall not be operated unless the vapor recovery system is in full use and has a valid permit to receive vent gases from this system.

[RULE 1303(a)-BACT, 5-10-1996; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Systems subject to this condition : Process 1, System 1, 2; Process 2, System 4, 5; Process 3, System 5; Process 4, System 1, 3, 5; Process 5, System 1, 2; Process 6, System 1, 2; Process 7, System 1; Process 8, System 1, 2, 3, 4, 6; Process 9, System 1, 2, 5, 6; Process 11, System 1, 2; Process 12, System 1, 2, 3, 4; Process 13, System 1, 2, 3, 4; Process 17, System 8]

S15.4 The vent gases from all affected devices of this process/system shall be vented as follows:

All acid gases under normal operating conditions shall be directed to the sulfur recovery unit(s).

This process/system shall not be operated unless the sulfur recovery unit is in full use and has a valid permit to receive vent gases from this system.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

S15.14 The vent gases from all affected devices of this process/system shall be vented as follows:

All sour gases shall be directed to the absorber located in the Fuel Gas Treating Unit (P11/S3), the Unsaturate Gas Plant (P9/S2), or the DEA Absorption System (P11/S5).

This process/system shall not be operated unless the absorber is in full use and has a valid permit to receive vent gases from this system.

During periods of maintenance and/or repair of the Fuel Gas Treating Unit Absorbers (P11/S3), all sour gases shall be directed to the Fuel Gas Treating Unit (P11/S12), the absorber located in the Unsaturate Gas Plant (P9/S2) or the DEA Absorption System (P11/S5).

During periods of maintenance and/or repair of the Fuel Gas Treating Unit Absorbers (P11/S3), the subject process/system shall not be operated unless the equipment specified is in full used and has a valid permit to receive vent gases from this system

[**RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]**

[Systems subject to this condition : Process 19, System 3]

S15.15 The vent gases from all affected devices of this process/system shall be vented as follows:

All emergency vent gases shall be directed to the vapor recovery system and/or flare.

This process/system shall not be operated unless the vapor recovery system is in full use and has a valid permit to receive vent gases from this system.

This process/system shall not be operated unless the flare is in full use and has a valid permit to receive vent gases from this system.

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Systems subject to this condition : Process 2, System 9; Process 6, System 6; Process 7, System 3; Process 9, System 6; Process 16, System 3]

S15.16 The vent gases from all affected devices of this process/system shall be vented as follows:

All vent gases shall be directed to the vapor recovery system unless otherwise specified in this permit. For the purpose of this condition, vent gases shall be defined to include blowdown gases.

All blowdown water shall be directed to knockout vessel(s) at the vapor recovery system for water removal.

This process/system shall not be operated unless the vapor recovery system is in full use and has a valid permit to receive vent gases from this system.

[RULE 1303(a)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]

[Systems subject to this condition : Process 15, System 3]

S18.1 All affected devices listed under this process/system shall be used only to receive, recover and/or dispose of vent gases routed from the system(s) or process(es) listed below, in addition to specific devices identified in the "connected to" column:

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

[**RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002**]

[Devices subject to this condition : D2411]

E336.21 The operator shall vent the vent gases from this equipment as follows:

All emergency vent gases shall be directed to a blowdown flare system.

[**RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002**]

[Devices subject to this condition : D1194]

E336.22 The operator shall vent the vent gases from this equipment as follows:

The equipment shall vent to CO2 reclamation equipment or to the atmosphere.

[**RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 463, 11-4-2011**]

[Devices subject to this condition : D1265]

E336.23 The operator shall vent the vent gases from this equipment as follows:

All emergency vent gases shall be directed to a vapor control system..

This equipment shall not be operated unless the vapor control system is in full use and has a valid permit to receive vent gases from this equipment.

[**RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002**]

FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS

The operator shall comply with the terms and conditions set forth below:

[Devices subject to this condition : D653, D654, D655, D656]

E336.24 The operator shall vent the vent gases from this equipment as follows:

All vent gases from the dog house during normal operations shall be vented to a vapor recovery system, Process 19, System 3..

This equipment shall not be operated unless the vapor recovery system is in full use and has a valid permit to receive vent gases from this equipment.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 463, 11-4-2011]

[Devices subject to this condition : D2538]

E440.1 The operator shall operate and maintain this equipment according to the following specifications:

The closed vent system shall be operated with no detectable VOC emissions, as indicated by an instrument reading of less than 500 ppm above background, as determined during the initial and semiannual inspections by methods specified in 40 CFR 60.696

[40CFR 60 Subpart QQQ, 10-17-2000]

[Devices subject to this condition : C686, C687]

E448.2 The operator shall comply with the following requirements:



FACILITY PERMIT TO OPERATE EXXONMOBIL OIL CORPORATION

SECTION E: ADMINISTRATIVE CONDITIONS

The operating conditions in this section shall apply to all permitted equipment at this facility unless superseded by condition(s) listed elsewhere in this permit.

1. The permit shall remain effective unless this permit is suspended, revoked, modified, reissued, denied, or it is expired for nonpayment of permit processing or annual operating fees. [201, 203, 209, 301]
 - a. The permit must be renewed annually by paying annual operating fees, and the permit shall expire if annual operating fees are not paid pursuant to requirements of Rule 301(d). [301(d)]
 - b. The Permit to Construct listed in Section H shall expire one year from the Permit to Construct issuance date, unless a Permit to Construct extension has been granted by the Executive Officer or unless the equipment has been constructed and the operator has notified the Executive Officer prior to the operation of the equipment, in which case the Permit to Construct serves as a temporary Permit to Operate. [202, 205]
 - c. The Title V permit shall expire as specified under Section K of the Title V permit. The permit expiration date of the Title V facility permit does not supercede the requirements of Rule 205. [205, 3004]
2. The operator shall maintain all equipment in such a manner that ensures proper operation of the equipment. [204]
3. This permit does not authorize the emissions of air contaminants in excess of those allowed by Division 26 of the Health and Safety Code of the State of California or the Rules and Regulations of the AQMD. This permit cannot be considered as permission to violate existing laws, ordinances, regulations, or statutes of other governmental agencies. [204]
4. The operator shall not use equipment identified in this facility permit as being connected to air pollution control equipment unless they are so vented to the identified air pollution control equipment which is in full use and which has been included in this permit. [204]

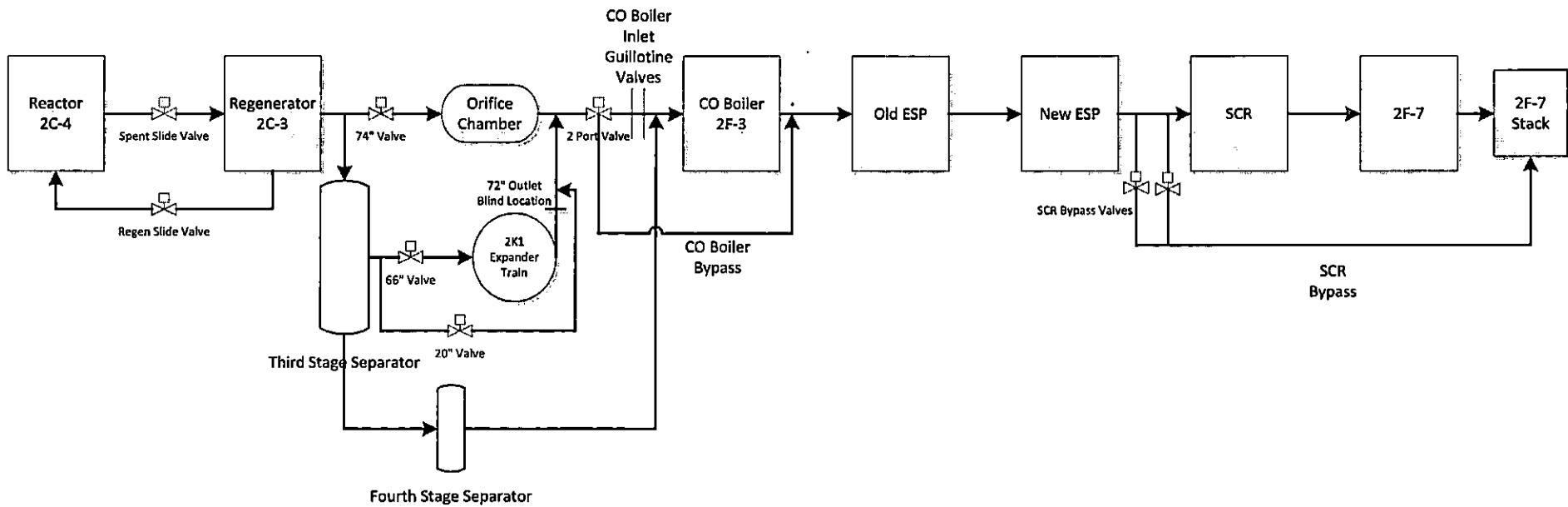


FACILITY PERMIT TO OPERATE EXXONMOBIL OIL CORPORATION

SECTION E: ADMINISTRATIVE CONDITIONS

5. The operator shall not use any equipment having air pollution control device(s) incorporated within the equipment unless the air pollution control device is in full operation. [204]
6. The operator shall maintain records to demonstrate compliance with rules or permit conditions that limit equipment operating parameters, or the type or quantity of material processed. These records shall be made available to AQMD personnel upon request and be maintained for at least: [204]
 - a. Three years for a facility not subject to Title V; or
 - b. Five years for a facility subject to Title V.
7. The operator shall maintain and operate all equipment to ensure compliance with all emission limits as specified in this facility permit. Compliance with emission limits shall be determined according to the following specifications, unless otherwise specified by AQMD rules or permit conditions: [204]
 - a. For internal combustion engines and gas turbines, measured concentrations shall be corrected to 15 percent stack-gas oxygen content on a dry basis and be averaged over a period of 15 consecutive minutes; [1110.2, 1134, 204]
 - b. For other combustion devices, measured concentrations shall be corrected to 3 percent stack-gas oxygen content on a dry basis and be averaged over a period of 15 consecutive minutes; [1146, 1146.1, 204]
 - c. For a large NO_x source, compliance with a RECLAIM concentration limit shall be measured over a continuous 60 minutes for that source; [2012]
 - d. For non-combustion sources, compliance with emission limits shall be determined and averaged over a period of 60 minutes; [204]

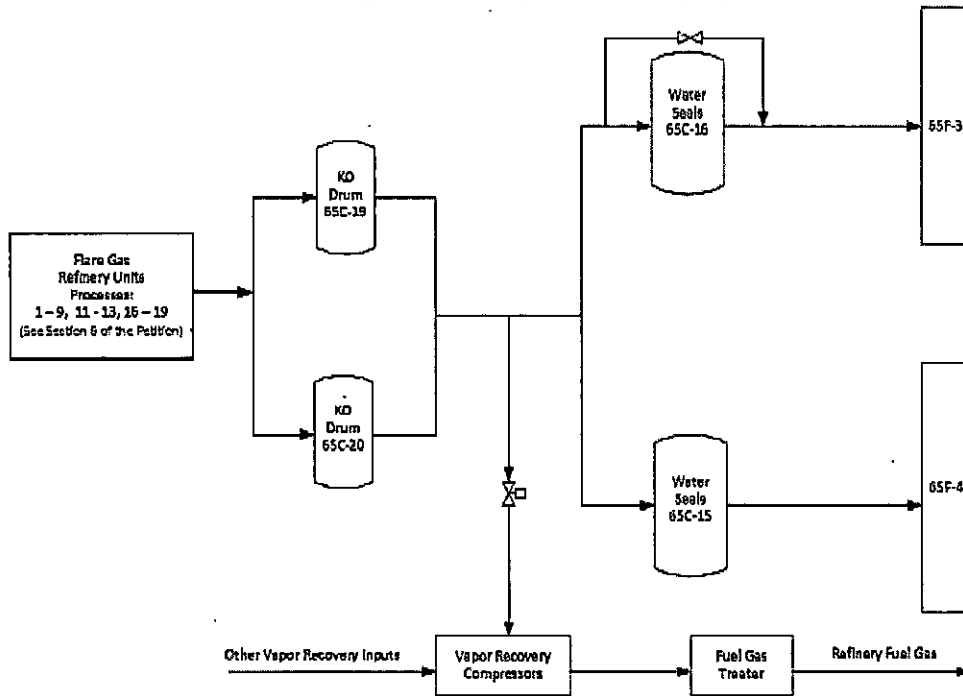
Torrance Refinery FCC Flue Gas Train



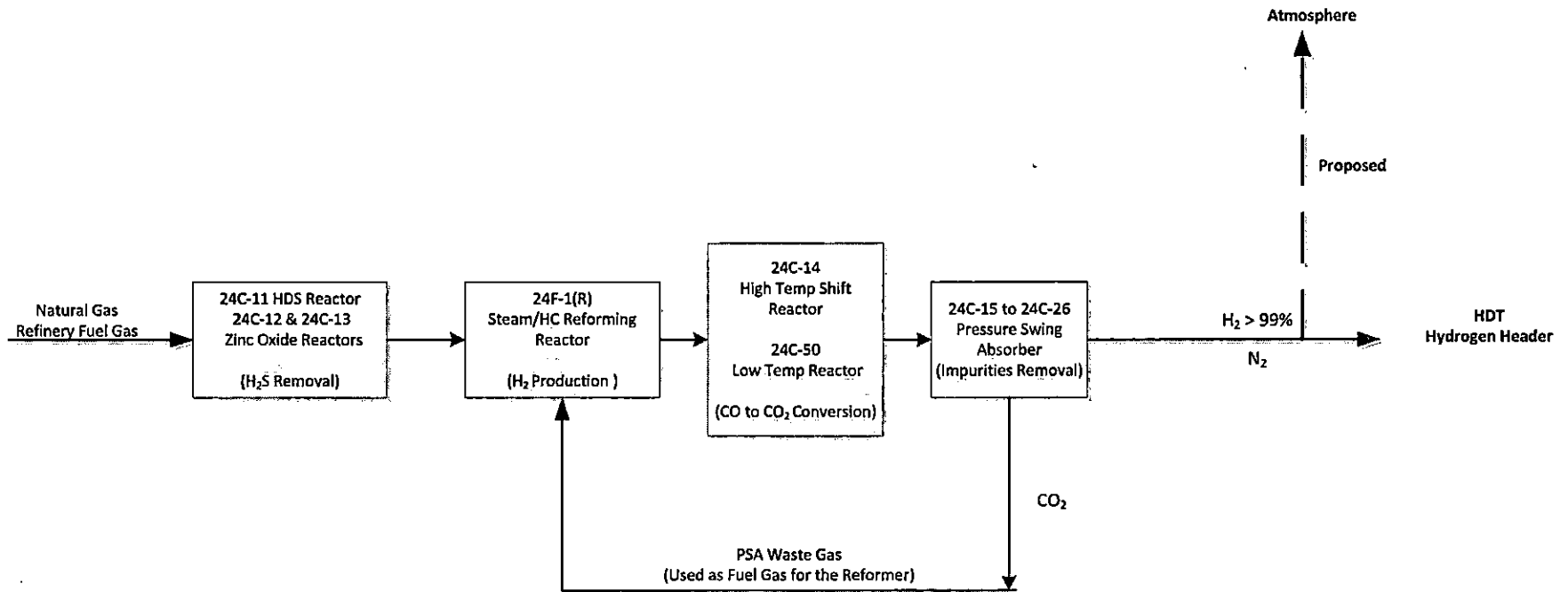


Refinery Flare – Vapor Recovery System

Proprietary Information



Hydrogen Plant #2 (Unit 24) Simplified Flow Diagram





South Coast Air Quality Management District
21865 COPLEY DRIVE, DIAMOND BAR, CA 91765-4178

P 63406

NOTICE OF VIOLATION

DATE OF VIOLATION		
Month	Day	Year
06	30	2016

Facility Name: EXXON MOBIL OIL CORPORATION		Facility ID# 800089	Scope: LE
Location Address: 3700 WEST 190TH STREET		City: TORRANCE	Zip: 90504
Mailing Address: 3700 WEST 190TH STREET		City: TORRANCE	Zip: 90504

YOU ARE HEREBY NOTIFIED THAT YOU HAVE BEEN CITED FOR ONE OR MORE VIOLATIONS OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT (SCAQMD) RULES, STATE LAW OR FEDERAL LAW. IF PROVEN, SUCH VIOLATION(S) MAY RESULT IN THE IMPOSITION OF CIVIL OR CRIMINAL PENALTIES.

EACH DAY A VIOLATION OCCURS MAY BE HANDLED AS A SEPARATE OFFENSE REGARDLESS OF WHETHER OR NOT ADDITIONAL NOTICES OF VIOLATION ARE ISSUED.

DESCRIPTION OF VIOLATIONS

#	Authority*	Code Section or Rule No.	SCAQMD Permit to Operate or CARB Registration No.	Condition No. (If Applicable)	Description of Violation
1	<input checked="" type="checkbox"/> SCAQMD <input type="checkbox"/> CH&SC <input type="checkbox"/> CCR <input type="checkbox"/> CFR	R3002(c)(1)			SELF-REPORTED DEVIATIONS FOR TITLE V COMPLIANCE YEAR 2016
2	<input type="checkbox"/> SCAQMD <input type="checkbox"/> CH&SC <input type="checkbox"/> CCR <input type="checkbox"/> CFR				
3	<input type="checkbox"/> SCAQMD <input type="checkbox"/> CH&SC <input type="checkbox"/> CCR <input type="checkbox"/> CFR				
4	<input type="checkbox"/> SCAQMD <input type="checkbox"/> CH&SC <input type="checkbox"/> CCR <input type="checkbox"/> CFR				
5	<input type="checkbox"/> SCAQMD <input type="checkbox"/> CH&SC <input type="checkbox"/> CCR <input type="checkbox"/> CFR				

Served To: Penny Wirsing P.W. Wirsing	Phone: 310.212.4597	Served By: STEVE TSUMURA <i>[Signature]</i>	Date Notice Served: 6/30/16
Title: Env. Section Supv.	Email: Penny.wirsing@pbfenergy.com	Phone No: <input type="checkbox"/> 909-396- <input checked="" type="checkbox"/> 310-233-7011	Email: STsumura @aqmd.gov

*Key to Authority Abbreviations: SCAQMD - South Coast Air Quality Management District CH&SC - California Health and Safety Code CCR - California Code of Regulations	Method of Service: <input checked="" type="checkbox"/> In Person <input type="checkbox"/> Certified Mail
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South Coast Air Quality Management District
21865 COPLEY DRIVE, DIAMOND BAR, CA 91765-4178

P 63407

NOTICE OF VIOLATION

DATE OF VIOLATION		
Month	Day	Year
7	11	2016

Facility Name TORRANCE REFINING COMPANY L.L.C.		Facility ID# 181167	Permit No. LE
Location Address 3700 WEST 190TH STREET		City TORRANCE, CA	Zip 90504
Alaing Address 3700 WEST 190TH STREET		City TORRANCE, CA	Zip 90504

YOU ARE HEREBY NOTIFIED THAT YOU HAVE BEEN CITED FOR ONE OR MORE VIOLATIONS OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT (SCAQMD) RULES, STATE LAW OR FEDERAL LAW. IF PROVEN, SUCH VIOLATION(S) MAY RESULT IN THE IMPOSITION OF CIVIL OR CRIMINAL PENALTIES.

EACH DAY A VIOLATION OCCURS MAY BE HANDLED AS A SEPARATE OFFENSE REGARDLESS OF WHETHER OR NOT ADDITIONAL NOTICES OF VIOLATION ARE ISSUED.

DESCRIPTION OF VIOLATIONS

No.	Authority	Code Section or Rule No.	SCAQMD Permit to Operate or CARB Registration No.	Condition No. (if Applicable)	Description of Violation
1	<input checked="" type="checkbox"/> SCAQMD <input type="checkbox"/> CH&SC <input type="checkbox"/> CCR <input type="checkbox"/> CFR	R207(b) A2008(X) A3008(X)			Facility operated permitted equipment while it bypassed associated air pollution control equipment in violation of its Facility Permit to operate.
2	<input checked="" type="checkbox"/> SCAQMD <input checked="" type="checkbox"/> CH&SC <input type="checkbox"/> CCR <input type="checkbox"/> CFR	401(b)(1) 41701		A63.3 A63.4	Opacity from FCCB 2F-7 exceeded 40% on 7/11/16 and 7/14/16, aggregate over 3 minutes in one continuous hour.
3	<input type="checkbox"/> SCAQMD <input type="checkbox"/> CH&SC <input type="checkbox"/> CCR <input type="checkbox"/> CFR				
4	<input type="checkbox"/> SCAQMD <input type="checkbox"/> CH&SC <input type="checkbox"/> CCR <input type="checkbox"/> CFR				
5	<input type="checkbox"/> SCAQMD <input type="checkbox"/> CH&SC <input type="checkbox"/> CCR <input type="checkbox"/> CFR				

Served To: TIM TANG	Phone: (310) 919-7662	Served By: STEVE LYNCH	Date Notice Served: 7/16/16
Title: BUSINESS TEAM MAN	Email: TIM.TANG@PBF.COM	Phone No: <input type="checkbox"/> 909-396- <input checked="" type="checkbox"/> 310-233-7011	Email: STEVEN@aqmd.gov

*Key to Authority Abbreviations: SCAQMD - South Coast Air Quality Management District CH&SC - California Health and Safety Code CCR - California Code of Regulations CFR - Code of Federal Regulations	Method of Service: <input checked="" type="checkbox"/> In Person <input type="checkbox"/> Certified Mail
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South Coast Air Quality Management District
21865 COPLEY DRIVE, DIAMOND BAR, CA 91765-4178

P 63409

NOTICE OF VIOLATION

DATE OF VIOLATION		
Month	Day	Year
10	11	2016

Facility Name: TORRANCE REFINING COMPANY L.L.C.		Facility ID#: 18167	Sector: LE
Location Address: 3700 WEST 190TH STREET		City: TORRANCE	Zip: 90504
Mailing Address: 3700 WEST 190TH STREET		City: TORRANCE	Zip: 90504

YOU ARE HEREBY NOTIFIED THAT YOU HAVE BEEN CITED FOR ONE OR MORE VIOLATIONS OF THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT (SCAQMD) RULES, STATE LAW OR FEDERAL LAW. IF PROVEN, SUCH VIOLATION(S) MAY RESULT IN THE IMPOSITION OF CIVIL OR CRIMINAL PENALTIES.

EACH DAY A VIOLATION OCCURS MAY BE HANDLED AS A SEPARATE OFFENSE REGARDLESS OF WHETHER OR NOT ADDITIONAL NOTICES OF VIOLATION ARE ISSUED.

DESCRIPTION OF VIOLATIONS

#	Authority*	Code Section or Rule No.	SCAQMD Permit to Operate or CARB Registration No.	Condition No. (If Applicable)	Description of Violation
1	<input checked="" type="checkbox"/> SCAQMD <input type="checkbox"/> CH&SC <input type="checkbox"/> CCR <input type="checkbox"/> CFR	R 402			TORRANCE REFINING COMPANY LLC (TR) DISCHARGED SUCH QUANTITIES OF AIR CONTAMINANTS FROM FLARE L5F-3, THAT CAUSED A NUISANCE TO A CONSIDERABLE NUMBER OF PERSONS OR TO THE PUBLIC.
2	<input type="checkbox"/> SCAQMD <input checked="" type="checkbox"/> CH&SC <input type="checkbox"/> CCR <input type="checkbox"/> CFR	41700			
3	<input type="checkbox"/> SCAQMD <input type="checkbox"/> CH&SC <input type="checkbox"/> CCR <input type="checkbox"/> CFR				
4	<input type="checkbox"/> SCAQMD <input type="checkbox"/> CH&SC <input type="checkbox"/> CCR <input type="checkbox"/> CFR				
5	<input type="checkbox"/> SCAQMD <input type="checkbox"/> CH&SC <input type="checkbox"/> CCR <input type="checkbox"/> CFR				

Served To: Penny Wirsing	Phone: 310.212.4527	Served By: STEVE TORRES <i>[Signature]</i>	Date Notice Served: 10/13/16
Title: Env. Section Supervisor	Email: penny.wirsing@pbtenergy.com	Phone No: <input type="checkbox"/> 909-396- <input checked="" type="checkbox"/> 310-233-7011	Email: sttorres @ aqmd.gov

*Key to Authority Abbreviations: SCAQMD - South Coast Air Quality Management District CH&SC - California Health and Safety Code CCR - California Code of Regulations	Method of Service: <input checked="" type="checkbox"/> In Person <input type="checkbox"/> Certified Mail
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From: Kyd, Helen M
To: Anokadjeja, Stephanie
Cc: Stenborg, Kathryn A; O'Reilly, Tim M
Subject: ESP Loading
Date: Tuesday, August 20, 2013 5:39:55 PM

Stephanie,

The ESP, per design, has enough capacity to handle the additional dust loading from a 4th stage bypass.

ESP Inlet Design Loading: 125 lb/hr

FCC Flue Gas Base Dust Loading: 70 lb/hr *based on source testing

Maximum FCC 4th Stage Dust Loading: 45 lb/hr *this number is likely smaller

Let me know if you need additional information.

Best Regards,
Helen

Helen Kyd
FCC/Alky Process Engineer
Torrance Refinery
Admin 241
310.212.4623

Exhibit 5
Torrance Refining Company LLC
Proposed Variance/AOC Conditions for
Case No. 6060-8

1. Petitioner shall notify the South Coast Air Quality Management District (District) by telephone (Attn: Inspector Rhonda Laugeson 1.800.CUT.SMOG), at least 2 hours before each of the following events:
 - a. Bypass of the FSS (Device No. C2314) to begin maintenance;
 - b. Removal of Flare 65F-4 (Device No. C892 from service (pilots out);
 - c. Removal of FSS from bypass; and
 - d. Putting Flare 65F-4 back in service (pilots on).
2. As an emissions mitigation measure, during the period of the AOC, Petitioner shall directly release high purity pressure swing adsorption ("PSA") hydrogen into the atmosphere and shall not direct that PSA hydrogen gas to the flare system. Direct release of PSA hydrogen gas to atmosphere must end no later than the notices provided pursuant to 1.d above.
3. Petitioner shall not bypass the FCCU Regenerator's Third Stage Separator Cyclone, Electrostatic Precipitators, or Selective Catalyst Reduction ("SCR") system during the variance/AOC period.
4. Petitioner shall notify the District by telephone (Attn: Inspector Rhonda Laugeson 1.800.CUT.SMOG) if the Refinery receives any confirmed visible emissions or confirmed odor complaints during the variance/AOC period. All such notifications shall be made to the District within 1 hour of each confirmed occurrence or complaint.
5. Petitioner shall notify the District by telephone within 1 hour (Attn: Inspector Rhonda Laugeson 1.800.CUT.SMOG) if opacity exceeds 10% from the 2F-7 main stack during the FSS bypass period.
6. During the FSS bypass period, Petitioner shall not recycle any catalyst fines from the ESPs hoppers into the system.
7. Petitioner shall submit to the District in writing (Attn: Rhonda Laugeson via email rlaugeson@aqmd.gov) the following information within 30 days after achieving final compliance:
 - a. NOx, SOx, CO, and Opacity monitoring results from the CEMS of the 2F-7 main stack during the variance/AOC period;
 - b. Bypass time periods of the FSS; and
 - c. Bypass time periods of Flare 65F-4.

Exhibit 5
Torrance Refining Company LLC
Proposed Variance/AOC Conditions for
Case No. 6060-8

8. Petitioner shall maintain in full use and operation the existing CEMS that measures emissions from the 2F-7 Main Stack.
9. Petitioner shall notify the District by calling 1-800-CUT-SMOG (Attn: Rhonda Laugeson) that final compliance has been achieved and the variance/AOC period is complete.
10. Petitioner shall notify the Clerk of the Board in writing within five days of achieving final compliance.
11. In the event U.S. EPA objects to this AOC within the 45 day review period or in response to a timely citizen petition, this AOC shall be ineffective to protect Petitioner from U.S. EPA or citizen enforcement under the federal Clean Air Act for any federally enforceable requirement.
12. Petitioner shall pay all applicable fees to the Clerk of the Board on or before thirty (30) days from the receipt of invoice or the variance shall be invalidated pursuant to District Rule 303(k).