

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

PETITIONER: TORRANCE REFINING COMPANY LLC

CASE NO: 6060-20

FACILITY ADDRESS: 3700 West 190th Street

FACILITY ID: No. 181667

CITY, STATE, ZIP: Torrance, CA 90504

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)

Good cause exists to hear and grant these Emergency Ex Parte Variance ("Variance") and Alternative Operating Condition ("AOC") Petitions without a publicly noticed hearing. Specifically, Torrance Refining Company LLC ("TORC") is forced to seek an ex parte emergency variance and AOC because an unexpected shutdown of CO Boiler 2F-3 (Device ID No. C164) at the Torrance Refinery ("Refinery"), following state-mandated maintenance at the Refinery, will now prevent TORC from timely conducting a source test of the FCCU as required by District Rule 1105.1.

District Rule 1105.1(e)(2)(A) requires the operator of any FCCU to conduct annual compliance source testing for PM10 and ammonia emissions. Under District Rule 1105.1(e)(2)(A), such testing must occur between nine and 12 months from the completion of the prior FCCU source test. The Refinery's last Rule 1105.1 source test for the FCCU occurred on September 14, 2022, and confirmed the FCCU's compliance with all applicable

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PM and ammonia limits. Because only one company in the Los Angeles area is capable of conducting a Rule 1105.1 compliant FCCU source test, Refinery personnel met with that source testing company in April 2023 and was able to schedule the FCCU source testing for the week of August 28, 2023, which was the earliest available date before the scheduled FCCU turnaround work that was the subject of Case No. 6060-18.

On August 30, 2023, as the scheduled source test was beginning, Compressor 4K-1 (Device ID No. D355) in the No. 1 Hydrogen Plant (separately owned and operated by Air Products ("AP")) unexpectedly shut down (or "tripped"), causing the Unit 25 Hydrotreater (Process 6, Systems 1 and 2) to go into an upset mode and preventing the source test from continuing. Hydrogen is necessary to run the Unit 25 Hydrotreater, which in turn provides feed to the FCCU, so the loss of hydrogen feed from AP forced the cancellation of the source test. After this occurred, TORC requested the next available date from the testing vendor to reschedule the FCCU source test, and was forced to accept December 13-15, 2023 as the soonest available date from the vendor when the FCCU would be able to build up sufficient feed (84 kbd) to run the test. TORC informed the District inspector about this forced delay of the FCCU source test.

In the meantime, on September 19, 2023, in Case No. 6060-18, the Hearing Board granted TORC a Short Variance and Alternative Operating Condition for the Refinery to perform certain necessary periodic and routine maintenance required by California law. This work included routine maintenance of Incinerator 29F-4 (Device ID No. C952), Sulfur Recovery Train A and Tail Gas Train A (Process 12, System 1 and 3) and Sulfur Pit 29R-1A (Device ID No. D668); routine inspection, maintenance and equipment replacement for Flare 65F-3 (Device ID No. C891); and temporary bypass of the Third Stage Separator (TSS) (Device ID No. C1590) and Fourth Stage Separator (FSS) (Device ID No. C2314) during restart of the FCCU following its shutdown for routine equipment replacement and maintenance.

The Hearing Board granted two modifications to the 6060-18 Variance to accommodate unexpected delays in transport of a replacement water seal drum to the Refinery, and additional unexpected delays in Air Products' restart of its Unit 24 Hydrogen Plant (separately owned and operated by Air Products, but necessary to FCCU restart) following a fire and related breakdown in Air Products' operations. For convenience, and because the operative facts presented therein apply with equal force here, the contents of TORC's prior Modification and Variance and AOC Petitions in Case No. 6060-18 are incorporated herein by reference. On Monday, December 11, 2023, TORC reported to the Hearing Board the completion of all maintenance work and its return to final compliance in Case No. 6060-18.

This should have cleared the way for TORC to conduct the planned Rule 1105.1 source test on the scheduled December 13-15 dates. However, on Thursday, December 7, 2023, while TORC was completing the maintenance work described in Case No. 6060-18, the CO Boiler suddenly shut down due to unexpected mechanical issues with the Boiler's outlet guillotines that restricted gas flow from the Boiler. CO Boiler 2F-3 uses flue gas heat to produce steam that is used throughout the refinery for turbines and other Refinery processes, and needs to be running at full capacity to supply the wet gas compressors necessary for the FCCU to reach the 84 kbd feed rate required by the Refinery permit for a valid source test. The CO Boiler and related equipment recently went through extensive Turnaround maintenance in October 2023, and TORC would not have reasonably expected any operational issues with the equipment.

Since then, TORC has repaired the CO Boiler ducting and has brought in representatives in from the CO Boiler manufacturer to assist in a rigorous troubleshooting investigation, in order to determine if the CO Boiler could be restarted in time for the source test to finish by December 15. While TORC hopes to identify and fix the root cause of the CO Boiler failure over the next week, this unfortunately will not occur in time to finish the Rule 1105.1 FCCU source test by the December 15 end of the vendor's availability window. On December 13, 2023, the source test vendor informed TORC that the next available window it will have to conduct the source test will be February 13-14, 2024.

As a result of these events, TORC has determined that it will not be possible to conduct the source test by Friday, December 15, and began preparing these petitions to seek Ex Parte Emergency Variance and AOC relief for an extension of time until March 1, 2024 to complete the CO Boiler source test. The timing of these events, which were unanticipated and beyond TORC's reasonable control, has prevented TORC from filing this petition in time to give regular public notice, forcing it to request relief both on an expedited emergency basis (for up to 30 days) and as part of a noticed short variance petition (for time beyond this maximum 30 days of emergency relief).

As discussed below, **TORC does not anticipate any excess emissions during the Variance and AOC period.** TORC simply requests an extension of time to conduct a source test on the FCCU. While the FCCU continues operating during the Variance and AOC period, its emissions will continue to be controlled in compliance with the permit and District rules by the 2C-25 Third Stage Separator Cyclone (Device No. C1590) (“TSS”); 2C-26-CY Fourth Stage Separator Cyclone (Device ID No.C2314) (“FSS”); 2D-1 electrostatic precipitator (“ESP”) (Device ID No. C166); 2D-2 ESP (Device ID No. C165); 2D-17 ESP (Device ID No. C2283); 2D-18 ESP (Device ID No. C2284); and the selective catalytic reduction (“SCR”) System (Device ID No. C1772). TORC also will continue its usual monitoring of emissions using its permitted CEMS and other monitoring devices. Still, TORC is devoting substantial resources to expediting the repair of the CO Boiler as quickly as possible, as well as to correct any other issues that might be discovered and to have the FCCU fully ready for the February source test.

If an Ex Parte Emergency Variance and AOC are not granted to provide an extension to conduct the FCCU source test during the vendor’s first available February window, TORC’s only alternative to try and maintain strict compliance would be to shut down the FCCU, which is the key unit responsible for production of refined petroleum products from the Refinery. If the FCCU is shut down, TORC would have no choice but to shut down the remainder of the Refinery, which relies on the operation of the FCCU. Such a Refinery shutdown would cause the loss of business and goodwill, likely cause breach of the Refinery’s contracts, and upset the local and regional petroleum supply market. Denial of the requested Variance and AOC relief also would prevent TORC from conducting the source testing required by Rule 1105.1 and its permit, which is critical to confirming PM and ammonia emissions from the FCCU. None of this would result in any avoidance of excess emissions to the air; indeed, forced shutdown of the FCCU likely would cause excess emissions in the form of flaring, but no excess emissions at all are expected if the variance is granted and the FCCU can continue in its usual emission-controlled operation.

Thus, good cause exists to hear these Ex Parte Emergency Variance and AOC Petitions as expeditiously as possible and without regular public notice.

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

Torrance Refining Company LLC’s (“TORC”) business is petroleum refining. TORC owns and operates the Torrance Refinery (“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** to the Original Variance and AOC petitions.

Equipment/Activity	Facility ID	RECLAIM Device No.	Date Application/Plan Denied (if relevant)*
FCCU Regenerator, 2C-3	181667	D151	N/A
CO Boiler 2F-3	181667	C164	N/A
Selective Catalytic Reduction (“SCR”) System	181667	C1772	N/A
Electrostatic Precipitator 2D-17	181667	C2283	N/A
Electrostatic Precipitator 2D-18	181667	C2284	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.

The 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.

More specifically, this process occurs when oil enters the FCCU 2C-4 Reactor (Device No. D1589) and is cracked using FCCU catalyst in the Reactor Riser Pipe. This process causes a buildup of coke on the catalyst. The catalyst is then sent to the 2C-3 Regenerator (Device No. D151) (“FCCU Regenerator”) where the coke is burned off with air generating flue gas. Once the catalyst has been regenerated, it is circulated back to the Reactor Riser Pipe via the FCCU Regenerator Standpipe.

The flue gas from the FCCU Regenerator passes through the 2C-25 TSS Cyclone (Device No. C1590), which separates and recovers the FCCU catalyst from the flue gas. Once through the cyclone, the majority of the flue gas continues up and out to the 2K-1 Power Recovery Train. However, concurrently, a very small amount of the residual flue gas is used to help move the separated catalyst from the bottom of the TSS via the underflow line to the 2C-26-CY FSS Cyclone (Device No. C2314).

Flue gas is then sent through the 2K-1 Power Recovery Train, and then 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 is composed of the following: the 2F-3 CO Boiler (Device No. C164); 2D-1 ESP (Device No. C166); 2D-2 ESP (Device No. C165); 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

CO Boiler 2F-3 uses flue gas heat to produce steam that is used throughout the refinery for turbines and other Refinery processes, and needs to be running at full capacity to supply the wet gas compressors necessary for the FCCU to reach the 84 kbd feed rate required by the Refinery permit for a valid source test. Historically, the CO Boiler was necessary to completely combust the flue gas from the FCCU Regenerator. However, as a result of process changes, complete combustion now occurs entirely in the FCCU Regenerator and further downstream control of CO is not required. Thus, the CO Boiler no longer practically serves as an air pollution control device for the FCCU.

Finally, the flue gas flows through a non-fired 2F-7 Waste Heat Boiler (Device No. D1511) and then through the 100-foot Main Stack (Device No. S1739). This Main Stack is equipped with CEMS that measure opacity, CO, NOx, SOx, oxygen, and stack flow.

A simplified diagram of the FCCU, the 2F-3 CO Boiler and their relevant connected systems and processes is attached 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.

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, 2K-1 Power Recovery Train, Cyclones, ESPs, SCR System, and associated equipment. In addition, TORC conducts repairs on an as needed basis on the FCCU, Cyclones, ESPs, SCR System, and associated equipment. Regular maintenance and inspection are performed during FCCU turnarounds.

The Refinery also maintains an inspection and maintenance program for CO Boiler 2F-3 in compliance with applicable federal, state, and industry standards. Consistent with these requirements, TORC conducts inspections, planned preventative maintenance, and as-needed maintenance on CO Boiler 2F-3 along with its

associated equipment. As discussed above, the CO Boiler and related equipment recently went through extensive Turnaround maintenance in October 2023, and TORC would not have reasonably expected any operational issues with the equipment.

Preventative maintenance of the CO Boiler involves daily monitoring of the boiler feed water to ensure the water is within the standards which will not cause harm to the boiler. Also, preventative maintenance is performed regularly to ensure the CO Boiler's fan, pump, regulator, and other associated equipment are operating properly. The source test to be performed on the CO Boiler in February is mandated by District Rule 1105.1 and the Facility Permit. Relevant portions of TORC's Title V Permit are attached as **Exhibit 1**.

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
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 TORC will be unable to comply with the various District Rules and Regulations and its Title V Permit conditions listed below until the FCCU's rescheduled Rule 1105.1 source test date in February 2024, it will need a Variance and AOC relief from these rules to allow the Refinery to continue operating the FCCU until the rescheduled source testing can be completed.
203(b), 2004(f)(1), 3002(c)(1) [as to Permit Conditions D29.3 & D29.4]	Permit Condition D29.3 requires the Refinery to conduct source testing for PM, emissions from the FCCU "at least annually." Permit Condition D29.4 imposes the same source testing requirements for PM, PM10, ammonia and VOC emissions from the FCCU "at least annually." As discussed above, sudden and unanticipated equipment failures of Compressor 4K-1 (D355) in the No. 1 Hydrogen Plant (separately owned and operated by AP), and in the 2F-3 CO Boiler (C164), have prevented the Refinery from completing the FCCU's required PM and other emission source testing on the mandated annual schedule, and have forced TORC to accept a rescheduled source test date on the source test vendor's next soonest available dates, which will be on February 13 and 14, 2024. While FCCU PM, PM10, ammonia and VOC emissions will continue to be controlled in accordance with District Rules and the Refinery Permit, and no excess emissions are anticipated during the variance period, the failure to complete the source test on the mandated annual schedule will unavoidably violate Conditions D29.3 and D29.4 of the Permit, requiring TORC to request a variance from these conditions until the rescheduled source testing can be conducted in February.
1105.1(e)(2)(A), (e)(2)(E)	District Rule 1105.1(e)(2)(A) requires the Refinery, as "[t]he operator of any FCCU" to "conduct, at a minimum, an annual compliance source test for PM10 and ammonia emissions in accordance with the test methods listed in subdivision (f) to demonstrate compliance with the selected emission limit(s) in subdivision (d)." District Rule 1105.1(e)(2)(E) further provides that "[t]he operator shall conduct subsequent annual source tests within twelve (12) calendar months but no sooner than nine (9) calendar months from the date of completion of the previous annual source test." As discussed above, sudden and unanticipated equipment failures of Compressor 4K-1 (D355) in the No. 1 Hydrogen Plant (separately owned and operated by AP), and in the 2F-3 CO Boiler (C164), have prevented the Refinery from completing the FCCU's required PM10 source test either on the mandated annual schedule or between nine and 12 months from the completion

	<p>of the previous source test. Instead, TORC has been forced to accept a rescheduled source test date on the source test vendor's next soonest available dates, which will be on February 13 and 14, 2024. While FCCU PM10 and other emissions will continue to be controlled in accordance with District Rules and the Refinery Permit, and no excess emissions are anticipated during the variance period, the failure to complete the source test on the mandated annual schedule will unavoidably violate District Rule 1105.1(e)(2)(A) and (e)(2)(E), requiring TORC to request a variance from these rule provisions until the rescheduled source testing can be conducted in February.</p>
<p>203(b), 2004(f)(1), 3002(c)(1) [Administrative Condition E.8 (first sentence only)]</p>	<p>The first sentence of Permit Section E, 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." The FCCU is subject to RECLAIM.</p> <p>Because TORC will be unable to comply with District Rules 203, 2004, 3002 and 1105.1 during the Variance and AOC period, it also will be unable to comply with first sentence of Administrative Condition E.8. Therefore, TORC requests Variance and AOC relief from Administrative Condition E.8 (first sentence only) to allow temporary relief from the rules and conditions listed above until the rescheduled FCCU source testing can be completed in February.</p>

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
6060-18	September 19, 2023	December 11, 2023	On September 19, 2023, TORC was granted a Short Variance and AOC relief for the Refinery to perform certain necessary periodic and routine maintenance required by California law. The work under the Variance and AOC is completed and TORC has returned to full compliance in this matter.

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

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

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

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

14. Explain why it is beyond your reasonable control to comply with the rule(s) and/or permit condition(s):

As discussed above, it is beyond TORC's reasonable control to comply with the Rules and Permit Conditions in Section 9 because sudden and unanticipated equipment failures of Compressor 4K-1 (D355) in the No. 1 Hydrogen Plant (separately owned and operated by AP), and in the 2F-3 CO Boiler (C164), have prevented the Refinery from completing the FCCU's required PM and other emission source testing on the annual schedule mandated in Permit Conditions D29.3 and D29.4, and in District Rule 1105.1(e)(2)(A) and (e)(2)(E), and have forced TORC to accept a rescheduled source test date on the source test vendor's next soonest available dates, which will be on February 13 and 14, 2024.

Specifically, the Refinery's originally scheduled FCCU source test on August 30, 2023, had to be stopped due to an unexpected shutdown of Compressor 4K-1 in AP's No. 1 Hydrogen Plant, which caused the Unit 25 Hydrotreater to go into an upset mode and prevented the source test from continuing. Hydrogen is necessary to run the Unit 25 Hydrotreater, which in turn provides feed to the FCCU, so the loss of hydrogen feed from AP forced the cancellation of the source test. After this occurred, TORC requested the next available date from the testing vendor to reschedule the FCCU source test, and was forced to accept December 13-15, 2023 as the soonest available date from the vendor when the FCCU would be able to build up sufficient feed (84 kbd) to run the test. TORC informed the District inspector about this forced delay of the FCCU source test.

Later, on December 7, 2023, while TORC was completing the maintenance work described in Case No. 6060-18, the CO Boiler suddenly shut down due to unexpected mechanical issues with the Boiler's outlet guillotines that restricted gas flow from the Boiler. CO Boiler 2F-3 uses flue gas heat to produce steam that is used throughout the refinery for turbines and other Refinery processes, and needs to be running at full capacity to supply the wet gas compressors necessary for the FCCU to reach the 84 kbd feed rate required by the Refinery permit for a valid source test. While TORC has brought in representatives in from the CO Boiler manufacturer to assist in a rigorous troubleshooting investigation, identification and repair of the CO Boiler unfortunately will not occur in time to finish the Rule 1105.1 FCCU source test by the December 15 end of the vendor's availability window. On December 13, 2023, the source test vendor informed TORC that the next available window it will have to conduct the source test will be February 13-14, 2024.

As a result of these events, TORC has determined that it will not be possible to conduct the source test by Friday, December 15, and began preparing these petitions to seek Ex Parte Emergency Variance and AOC relief for an extension of time until March 1, 2024 to complete the CO Boiler source test. These events were unanticipated and beyond TORC's reasonable control, in that (a) TORC does not control the operation of the AP-owned and operated Compressor 4K-1, and (b) TORC had no warning of the outlet guillotine mechanical issues before discovering them on December 7, has properly maintained the 2F-3 CO Boiler in accordance with state and federal requirements, and exercised significant diligence in attempting to correct the 2F-3 CO Boiler issues in time to complete the testing by the close of the source testing vendor's availability window on December 15.

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)?

On or about December 7, 2023, TORC became aware of mechanical issues with the 2F-3 CO Boiler outlet guillotines, but began working to identify and correct the issues in time to meet the scheduled FCCU source testing on December 13-15. However, on December 13, 2023, TORC determined that troubleshooting and corrective actions could not be completed in time to allow completion of FCCU source testing by the close of the vendor's availability window on December 15, 2023, and began preparation of these Ex Parte Emergency Variance and AOC Petitions.

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

TORC worked diligently to reschedule the FCCU source test after the unexpected August 2023 shutdown of AP's Compressor 4K-1, and accepted the next earliest available and feasible testing dates of December 13-15, 2023 from the source test vendor. After the unexpected trip of the 2F-3 CO Boiler on December 7, 2023, TORC immediately took actions to troubleshoot the issue and brought manufacturer representatives in to assist with diagnosing and addressing the problem. While this troubleshooting effort continues today, it will unfortunately not result in an answer and a fix fast enough to allow FCCU source testing by the close of the vendor's availability window on December 15, 2023.

TORC will continue to work to identify and correct the issues with the 2F-3 CO Boiler as quickly as possible, and take all other actions necessary to ensure that the 2F-3 CO Boiler and the FCCU are ready for the rescheduled February source testing.

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

Economic losses: Up to \$3.7 million per day if multiple Refinery process units are forced to shut down. See below.

Number of employees laid off (if any): Not anticipated unless TORC is forced into an extended Refinery shutdown. See below.

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 the requested Ex Parte Emergency Variance and AOC would result in significant harm to TORC and the environment. If an Ex Parte Emergency Variance and AOC are not granted to provide an extension to conduct the FCCU source test during the vendor's first available February window, TORC's only alternative to try and maintain strict compliance would be to shut down the FCCU, which is the key unit responsible for production of refined petroleum products from the Refinery. If the FCCU is shut down, TORC would have no choice but to shut down the remainder of the Refinery, which relies on the operation of the FCCU. Such a Refinery shutdown would cause the loss of business and goodwill, likely cause breach of the Refinery's contracts, and upset the local and regional petroleum supply market. Denial of the requested Variance and AOC relief also would prevent TORC from conducting the source testing required by Rule 1105.1 and its permit, which is critical to confirming PM and ammonia emissions from the FCCU.

If the FCCU is never allowed to restart, the Refinery eventually would be forced to shut down. Such a Refinery shutdown would cause a catastrophic loss of business, result in loss of jobs and major disruption of the petroleum supply markets.

None of this would result in any avoidance of excess emissions to the air; indeed, forced shutdown of the FCCU likely would cause excess emissions in the form of flaring, but no excess emissions at all are expected if the variance is granted and the FCCU can continue in its usual emission-controlled operation.

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

TORC cannot avoid the need for Variance and AOC relief as requested by otherwise curtailing or terminating Refinery operations. District Rules and the Facility Permit require FCCU source testing for PM and other emissions "at least annually," regardless of the level of Refinery operations. Curtailing operations does not allow TORC to comply with those requirements. And as discussed above, attempting to strictly comply by shutting down the FCCU will effectively force the shutdown of the rest of the Refinery, which relies on the operation of the FCCU. Even this extreme measure would not avoid the need for a variance if the Refinery ever hoped to restart the FCCU and other units again, and it would further result in excess emissions that could be avoided by simply granting the requested Variance and AOC.

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			

* 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 emissions during the Variance and AOC period. TORC simply requests an extension of time to conduct a source test on the FCCU. While the FCCU continues operating during the Variance and AOC period, its emissions will continue to be controlled in compliance with the permit and District rules by the 2C-25 TSS Cyclone (Device No. C1590); 2C-26-CY FSS Cyclone (Device ID No. C2314); 2D-1 ESP (Device ID No. C166); 2D-2 ESP (Device ID No. C165); 2D-17 ESP (Device ID No. C2283); 2D-18 ESP (Device ID No. C2284); and the SCR System (Device ID No. C1772).

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

 N/A

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.**

No excess emissions are expected during the Variance and AOC period. During the maintenance work, TORC will continue its usual monitoring of emissions using its remaining operational permitted CEMS and other monitoring devices.

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.

TORC intends to achieve compliance with the requested amended timeframes by devoting substantial resources to expediting the repair of the CO Boiler as quickly as possible, as well as to correct any other issues that might be discovered and to have the FCCU fully ready for the February source test. TORC also will assigning sufficient personnel to ensure that the FCCU testing can be completed as quickly as possible.

24. State the date by which you expect to achieve final compliance: February 15, 2023.

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 Paul Caballero Ext. 310-233-7002

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 December 15, 2023, at Torrance, California

Valerie Tse
Signature

Valerie Tse
Print Name

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

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].

(Petition for Variance: Revised December 10, 2008)



EXHIBIT 1

**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
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 BBL (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
 (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 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
 - (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 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			
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

- * (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 3: Fluid Catalytic Cracking Unit (FCCU)					P13.1
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
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: 595363 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
 ** 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
<p>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: 595366</p> <p>AMMONIA INJECTION</p> <p>HOPPER, CATALYST DUST, 24 TOTAL</p> <p>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.</p>	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
<p>SELECTIVE CATALYTIC REDUCTION, FIXED BED REACTOR, WITH CORMETECH VANADIUM PENTOXIDE HONEYCOMB TYPE CATALYST, WIDTH: 27 FT ; HEIGHT: 56 FT ; LENGTH: 31 FT A/N: 595368</p>	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 (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:

D29.2 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
PM emissions	Approved District method	1 hour	Outlet of the SCR serving this equipment
ROG emissions	Approved District method	District-approved averaging time	Outlet of the SCR serving this equipment

The test(s) shall be conducted at least once every three years.

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition : D1236, D1239]

D29.3 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
PM emissions	Approved District method	1 hour	Outlet of the SCR



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:

The test(s) shall be conducted at least annually.

The test shall be conducted when the equipment is operating under normal conditions.

Source test result shall be submitted to the District no later than 60 days after the source test was conducted

Source test results shall include the following parameters: FCCU feed rate; catalyst recirculation rate; coke burn rate; oxygen content of exhaust gases; exhaust flow rate; exhaust gas moisture content; the flue gas temperature at the outlet of the ESP; and the average current, voltage, and spark rate at each of the ESP fields

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997; RULE 404, 2-7-1986; RULE 405, 2-7-1986; RULE 409, 8-7-1981]

[Devices subject to this condition : D151]

D29.4 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
PM10 emissions	District Method 5.2 (filterables compliance, condensables information)	District-approved averaging time	Outlet
PM10 emissions	District Method 5.2 Modified with EPA Method 201A Cyclone (filterables compliance, condensables information)	District-approved averaging time	Outlet



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:

PM10 emissions	District Method 5.2 with Previously Determined PM10 to PM Ratio Applied (filterables compliance, condensables information)	District-approved averaging time	Outlet
PM10 emissions	EPA Method 5 (filterables compliance) and District Method 5.2 (condensables information)	District-approved averaging time	Outlet
NH3 emissions	District method 207.1	1 hour	Outlet
VOC emissions	District Method 25.1 or 25.3	1 hour	Outlet



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:

The operator shall choose any of the PM10 test methods as indicated above to comply with Rule 1105.1 requirements and the test results of any of the selected test methods shall be used to determine compliance with Rules 404 and 405.

The test shall be conducted in accordance with SCAQMD approved source test protocol. The SCAQMD engineer shall be notified in writing of the date and time of the test at least 10 days prior to the test.

The test shall be conducted with two ESPs C2283 and C2284 in full operating mode.

The test shall be conducted when the FCCU is operating with at least 80 percent of total feed rate (or 84 thousand barrels per day of total feed) with the two ESPs in full operating mode.

The operator shall provide sampling port(s) at the inlet of the ESPs (C2283 and C2284) in accordance with SCAQMD Method 1.1 - "Sample and Velocity Traverses for Stationary Source" and shall obtain a final approval from SCAQMD for the sampling port(s) installation and operation, which should be included in the source test protocol to determine the control efficiency of the ESPs.

The test(s) shall be conducted at least annually.

Source test results shall include the following parameters: FCCU feed rate in KBD; catalyst recirculation rate in TPM; fresh catalyst (make-up & additives) rate in TPD; coke burn rate in lb/hr; oxygen & moisture content of flue gases; flue gas flow rate in dscfm; flue gas temperature at the inlet of the ESP; ammonia injection rate (at ESPs inlet and SCR inlet); and the average current in amps, voltage in volts and spark rate at each ESP field in use.

A source test report shall be submitted to SCAQMD no later than 60 days after the source test was completed.



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 1105.1, 11-7-2003; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997; RULE 404, 2-7-1986; RULE 405, 2-7-1986; RULE 407, 4-2-1982; RULE 409, 8-7-1981]

[Devices subject to this condition : C1772, C2283, C2284]

D29.5 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
PM emissions	Approved District method	1 hour	Outlet

The test(s) shall be conducted at least once every three years.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997; RULE 404, 2-7-1986; RULE 409, 8-7-1981]

[Devices subject to this condition : C626]

D29.6 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test Method(s)	Averaging Time	Test Location
NH3 emissions	Approved District method	District-approved averaging time	Outlet of the SCR
NOX emissions	District method 100.1	1 hour	Outlet of the SCR
CO emissions	District Method 100.1 or 10.1	1 hour	Outlet of the SCR
PM10 emissions	Approved District method	District-approved averaging time	Outlet of the SCR



FACILITY PERMIT TO OPERATE TORRANCE REFINING COMPANY LLC

SECTION E: ADMINISTRATIVE CONDITIONS

- e. For the purpose of determining compliance with Rule 407, carbon monoxide (CO) shall be measured on a dry basis and be averaged over 15 consecutive minutes, and sulfur compounds which would exist as liquid or gas at standard conditions shall be calculated as sulfur dioxide (SO₂) and be averaged over 15 consecutive minutes; [407]
- f. For the purpose of determining compliance with Rule 409, combustion contaminant emission measurements shall be corrected to 12 percent of carbon dioxide (CO₂) at standard conditions and averaged over 15 consecutive minutes. [409]
- g. For the purpose of determining compliance with Rule 475, combustion contaminant emission measurements shall be corrected to 3 percent of oxygen (O₂) at standard conditions and averaged over 15 consecutive minutes or any other averaging time specified by the Executive Officer. [475]
8. All equipment operating under the RECLAIM program shall comply concurrently with all SCAQMD Rules and Regulations, except those listed in Table 1 of Rule 2001 for NO_x RECLAIM sources and Table 2 of Rule 2001 for SO_x RECLAIM sources. Those provisions listed in Tables 1 or 2 shall not apply to NO_x or SO_x emissions after the date the facility has demonstrated compliance with all monitoring and reporting requirements of Rules 2011 or 2012, as applicable. Provisions of the listed SCAQMD rules in Tables 1 or 2 which have initial implementation dates in 1994 shall not apply to a RECLAIM NO_x or SO_x source, respectively. [2001]
9. The operator shall, when a source test is required by SCAQMD, provide a source test protocol to SCAQMD no later than 60 days before the proposed test date. The test shall not commence until the protocol is approved by SCAQMD. The test protocol shall contain the following information: [204, 304]
 - a. Brief description of the equipment tested.

EXHIBIT 2

Torrance Refinery FCC Flue Gas Train

