

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

PETITIONER: TORRANCE REFINING COMPANY LLC

CASE NO: 6060-20

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 December 23, 2022.

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
FCCU Regenerator 2C-3 (Device No. D151) / AN 582075	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.	203(b)	1-5-1990 (12-3-2004 version pending approval);
CO Boiler 2F-3 (Device No. C164) / AN 582060		2004(f)(1);	4-6-2007;
Selective Catalytic Reduction ("SCR") System (Device No. C1772) / AN 595368		3002(c)(1) (as to Permit Conditions D29.3 and D29.4, and Administrative	11-5-2010

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Electrostatic Precipitator 2D-17 (Device ID No. C2283) / AN 595363	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 source test vendor's availability window. 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.	Permit Condition E.8 (first sentence only). 1105.1(e)(2)(A), (e)(2)(E)	11-7-2003
Electrostatic Precipitator 2D-18 (Device ID No. C2284) / AN 595366	For this reason, TORC has determined that it will not be possible to conduct the source test by Friday, December 15, and it now is forced 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. No excess emissions will occur during the period of the requested Variance and AOC.		

EXAMPLE:

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

<p>AOC #1 – Petitioner shall be subject to the following Alternative Operating Condition (“AOC”) defining alternative emission and operational requirements during the AOC period.</p> <ol style="list-style-type: none"> 1. Petitioner shall notify the South Coast Air Quality Management District (District) by telephone (Attn: Paul Caballero, 1-800-CUT-SMOG), at least 48 hours prior to the Rule 1105.1 source test on the FCCU. 2. Petitioner shall, no later than March 1, 2024, complete a source test on D151 consistent with the source test protocol approved by the District on March 9, 2016. 3. Petitioner shall notify the Air Quality Inspector Paul Caballero (pcaballero@aqmd.gov) via electronic mail, and by calling 1-800-CUT-SMOG (Attn: Paul Caballero) to report Variance Notification within two (2) hours of receiving the results of successful source testing demonstrating FCCU compliance as required by the permit and District Rule 1105.1. 4. Petitioner shall notify the Clerk of the Board in writing within five days of achieving final compliance. 5. Petitioner shall pay all applicable fees, including any excess emissions fees required based on the source test results, to the Clerk of the Hearing Board or the variance shall be invalidated pursuant to Rule 303(k).

6. 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

Because no excess emissions or excess opacity are expected during the Variance and AOC, TORC does not anticipate that the activities 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 to the public, or cause, or have a natural tendency to cause, injury, or damage to business or property.

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.

The equipment at issue in this Variance and AOC action are subject to 40 CFR Part 60, Subpart A, which requires that Petitioner 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 the Variance and AOC is to allow an extension of time to complete the FCCU source test required by District Rule 1105.1 and the Refinery Permit, and will not result in any excess emissions or changes in the existing level of control of emissions from the FCCU. Further, because no excess emissions or excess opacity are expected during the Variance and AOC period, TORC does not expect any exceedance of Subpart J H₂S limits or other requirements. Accordingly, TORC will remain in compliance with Subpart A and J 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

No excess emissions are anticipated as a result of extension of time for source testing that is the subject of the Variance and AOC Petitions, nor are any excess emissions anticipated as the result of the Variance and AOC.

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.

TORC was forced to postpone the originally scheduled August 2023 source test of the FCCU due to two breakdowns beyond its reasonable control: *i.e.*, (a) Compressor 4K-1 in the No. 1 Hydrogen Plan, which is owned and operated by Air Products, and (b) the 2F-3 CO Boiler, recently went through extensive Turnaround maintenance in October 2023 and should not have been expected to have any operational issues. TORC could not have controlled or anticipated problems with AP's Compressor equipment, and understands from AP that such equipment is

regularly maintained and inspected in accordance with federal and state law. TORC also did not reasonably anticipate a risk of operational issues with the 2F-3 CO Boiler so soon after such recent Turnaround maintenance.

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

See answer to (A) above.

- (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.

The Refinery 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 should not have been expected to have any operational issues so soon after such recent Turnaround maintenance.

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 to the Ex Parte Emergency Variance Petition**.

- (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

Since the unexpected breakdown of the 2F-3 CO Boiler, 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. 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. In any event, TORC will continue to devote necessary resources and personnel to addressing the CO Boiler issues well in advance of the rescheduled February 2024 FCCU source test, to ensure that all equipment is ready to complete that test expeditiously.

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

See answer to (C) above.

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.

None of the violations at issue will occur during equipment startup or shutdown.

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			

***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	N/A	N/A	N/A	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.

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.

N/A

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: 12/15/2023

Sara C. Wilson

Signature of Responsible Official

Sara Wilson

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: 6060-20

FACILITY ID: 181667

Device/Application No.(s) D151 / 582075; C1590 / 582076; C2314 / 582076

- 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
TORC is forced to seek an ex parte emergency variance and AOC because an unexpected shutdown of CO Boiler 2F-3 (C164) at the Refinery, following state-mandated maintenance at the Refinery, will now prevent TORC from timely conducting an annual source test of the FCCU as required by District Rule 1105.1(e)(2)(A) and (e)(2)(E), and by Conditions D29.3 and D29.4 of the Permit.	203(b), 2004(f)(1) and 3002(c)(1) (as to Permit Conditions D29.3 and D29.4; and Administrative Permit Condition E.8 (first sentence only))	1-5-1990 (12-3-2004 version pending approval); 4-6-2007; 11-5-10.
This will also necessarily violate District Rules 203(b), 2004(f)(1), and 3002(c)(1), which generally require compliance with the permit; and the first sentence of Administrative Condition E.8, which requires all Refinery RECLAIM equipment to comply with all District Rules.	1105.1(e)(2)(A), (e)(2)(E)	11-7-2003

- 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.

No excess emissions are anticipated as a result of the extension of time requested in the Variance and AOC Petitions to conduct the FCCU source test, given that all required emissions control devices serving the FCCU will continue in operation in compliance with District Rules and the Permit during the Variance and AOC period.

- 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. Petitioner shall, no later than March 1, 2024, complete a source test on D151 consistent with the source test protocol approved by the District on March 9, 2016.

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: Paul Caballero, 1-800-CUT-SMOG), at least 48 hours prior to the Rule 1105.1 source test on the FCCU.
3. Petitioner shall notify the Air Quality Inspector Paul Caballero (pcaballero@aqmd.gov) via electronic mail, and by calling 1-800-CUT-SMOG (Attn: Paul Caballero) to report Variance Notification within two (2) hours of receiving the results of successful source testing demonstrating FCCU compliance as required by the permit and District Rule 1105.1.
4. Petitioner shall notify the Clerk of the Board in writing within five days of achieving final compliance.

ATTACHMENT II
MITIGATION MEASURE EMISSION CALCULATION

PETITIONER: TORRANCE REFINERY CORPORATION

CASE NO: 6060-18

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):

No excess emissions are expected during the Variance and AOC period, given that all required emissions control devices serving the FCCU will continue in operation in compliance with District Rules and the Permit during the Variance and AOC period.

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

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

2. Petitioner shall, no later than March 1, 2024, complete a source test on D151 consistent with the source test protocol approved by the District on March 9, 2016.

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				

*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: Paul Caballero, 1-800-CUT-SMOG), at least 48 hours prior to the Rule 1105.1 source test on the FCCU.
3. Petitioner shall notify the Air Quality Inspector Paul Caballero (pcaballero@aqmd.gov) via electronic mail, and by calling 1-800-CUT-SMOG (Attn: Paul Caballero) to report Variance Notification within two (2) hours of receiving the results of successful source testing demonstrating FCCU compliance as required by the permit and District Rule 1105.1.
4. Petitioner shall notify the Clerk of the Board in writing within five days of achieving final compliance.

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