



**SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT
21865 Copley Drive, Diamond Bar, CA 91765**

FACILITY PERMIT TO OPERATE ULTRAMAR INC (NSR USE ONLY)

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 15: STEAM GENERATION					
SYSTEM 1: BOILER					
BOILER, 86-B-9000, REFINERY GAS, WITH LOW NOX BURNER, 39 MMBTU/HR WITH A/N: 527886 BURNER, REFINERY GAS, ZURN, MODEL MJ-21, ONE BURNER, LOW NOX BURNER, 39MMBTU/HR	D377		NOX: LARGE SOURCE; SOX: MAJOR SOURCE	CO: 400 PPMV (5) [RULE 1146, 11-17-2000; RULE 1146, 9-5-2008] ; CO: 2000 PPMV (5) [RULE 407, 4-2-1982 NOX: 125 PPMV (3) [RULE 2012, 5-6-2005] PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	A63.x, B61.2, D28.11, D29.x1, D90.3, H23.5
SYSTEM 2: BOILER					
BOILER, 86-B-9001, REFINERY GAS, 127.8 MMBTU/HR A/N: 527885	D378	C379	NOX: MAJOR SOURCE; SOX: MAJOR SOURCE	CO: 2000 PPMV (5) [RULE 407, 4-2-1982 NOX: 0.01 LBS/MMBTU (8) [CONSENT DECREE VALERO, 6-16-2005] PM: 0.01 GRAINS/SCF (5B) [RULE 476, 10-8-1976]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]; PM: 11 LBS/HR (5A) [RULE 476, 10-8-1976]	A63.x , A195.15, A327.1, B61.2, D29.x1, D90.3, D328.1, H23.5

* (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 limits(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.



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FACILITY CONDITIONS

F8.1 The operator shall comply with all applicable mitigation measures stipulated in the “Statement of Findings, Statement of Overriding Considerations, and Mitigation Monitoring Plan” document which is part of the AQMD Certified Subsequent Environmental Impact Report dated 08/30/2002 for this facility.

[CA PRC CEQA, 11-23-1970]

F9.1 Except for open abrasive blasting operations, the operator shall not discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is:

(a) As dark or darker in shade as that designated No.1 on the Ringelmann Chart, as published by the United States Bureau of Mines; or

(b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subparagraph (a) of this condition.

[RULE 401, 3-2-1984; RULE 401, 11-9-2001]

F10.1 Material(s) that contain the following compound(s) shall not be used in this facility;

Total Reduced Sulfur

H₂S

Hydrogen Fluoride

This condition shall not apply if the operator demonstrates to the satisfaction of the Executive Officer that the facility is in compliance with the operational air quality mitigation measures stipulated in the Reformulated Fuels Project EIR as follows:

a. Implementation of an inspection and maintenance program for all odor sources.

b. Installation and inspection of a deluge system in the alkylation unit. The deluge system shall be inspected quarterly and flow tested semi-annually.



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- c. Installation and inspection of elevated monitors with water spray system covering all area of the alkylation unit. The system shall be inspected weekly and flow tested monthly.
- d. Conduct safety review for the GOH unit, revision and implementation of the Risk Management and Prevention Plan (RMPP) for hydrogen sulfide.
- e. Conduct safety review for the Sulfur Recovery Unit, revision and implementation for the RMPP for hydrogen sulfide.

[CA PRC CEQA, 11-23-1970]

- F14.1 The operator shall not purchase diesel fuel, for stationary source application as defined in Rule 431.2, containing sulfur compounds in excess of 15 ppm by weight as supplied by the supplier.

[**RULE 431.2, 5-4-1990**; RULE 431.2, 9-15-2000]

- F24.1 Accidental release prevention requirements of Section 112(r)(7):

- a). The operator shall comply with the accidental release prevention requirements pursuant to 40 CFR Part 68 and shall submit to the Executive Officer, as a part of an annual compliance certification, a statement that certifies compliance with all of the requirements of 40 CFR Part 68, including the registration and submission of a risk management plan (RMP).
- b). The operator shall submit any additional relevant information requested by the Executive Officer or designated agency.

[**40CFR 68 – Accidental Release Prevention, 5-24-1996**]

- F25.1 The permit holder of this facility shall not install, alter, or operate a refinery process unit or other non-Rule 219 exempt equipment without a valid RECLAIM/TitleV permit issued by the AQMD pursuant to Rule 201 – Permit to Construct, Rule 203 - Permit to Operate, Rule 2004 - Requirements, and Rule 3002 - Requirements, as applicable.

Notwithstanding the above, the provisions of Rules 201, 203, 2004, and 3002 shall not apply to installations or alterations that involve only the equipment listed in Table 1 below, nor shall they apply to the operation of equipment listed in Table 1, when directly associated with permitted process units or other permitted equipment.

Notwithstanding the above, all new equipment listed in Table 1, including associated fugitive components installed with such equipment, shall have Best Available Control Technology installed in conformance with the Best Available Control



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

Technology Guidelines in effect at the time of the installation.

TABLE 1

- (a) Heat Exchanger (including air-cooler, reboiler, cooler, condenser ,and shell and tube exchanger)
- (b) In-line Mixer
- (c) Pump
- (d) Knockout Pot - Compressor inlet (immediate inlet) and interstage
- (e) Knockout Pot - Fuel Gas System (downstream of fuel gas mix drums)

This condition applies only to the facility that processes petroleum as defined in the Standard Industrial Classification Manual as Industry No. 2911 - Petroleum Refining, as well as its directly associated sulfur recovery plant which may be located outside of the facility.

[**RULE 2004, 5-11-2001**; RULE 2004, 4-6-2007]

F34.2 The operator shall not sell refinery gas containing sulfur compounds in excess of 40 ppmv, calculated as hydrogen sulfide, averaged over 4-hour period.

[**RULE 431.1, 6-12-1998**]

F52.1 This facility is subject to the applicable requirements of the following rules or regulation(s):

California Code of Regulations, Title 13, Division 3, Chapter 5

40 CFR 79

40 CFR 80

[**40CFR 79, 7-1-1999; 40CFR 80, 7-1-1999; CCR Title 13, 9-24-1999**]

F52.2 This facility is subject to the applicable requirements of the following rules or regulation(s):

40 CFR 60 Subpart A



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

40 CFR 61 Subpart A

40 CFR 63 Subpart A

40 CFR 63 Subpart GGGGG

[40CFR 60 Subpart A, 5-16-2007; 40CFR 61 Subpart A, 5-16-2007; 40CFR 63 Subpart A, 5-16-2007; 40CFR 63 Subpart GGGGG, 11-29-2006]

F52.3 This facility is subject to the applicable requirements of the following rules or regulation(s):

CONSENT DECREE CIVIL NO. SA-05-CA-0569. The facility shall send the District a copy of the semiannual update report sent to the EPA of the specific requirement of emission standards and limitations from the Consent Decree. This report shall also identify any anticipated future requirements known as of the date of the report and dates of compliance for the requirements.

[CONSENT DECREE VALERO, 6-16-2005]

F60.1 The emission limits identified in Section D and H of the permit shall be defined as emissions discharged to the atmosphere from the originating equipment.

DEVICE CONDITIONS

A. Emission Limits

A63.x The operator shall limit emission from this equipment as follows:

CONTAMINANT	EMISSION LIMIT
VOC	Less than or equal to 2,981 LBS IN ANY ONE MONTH
PM10	Less than or equal to 4,897 LBS IN ANY ONE MONTH

For the purposes of this condition, the above emission limits shall be based on the combined emissions from Boiler 86-B-9000, Boiler 86-B-9001, Boiler 86-B-9002, Gas Turbine 79-GT-1, and Duct Burner.

The operator shall initially calculate the monthly emissions for VOC and PM10 using the equation below.

Monthly Emissions, lb/ month = (Monthly fuel usage in mmscf/day) * (Emission factors indicated below)



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

The emission factors for the gas turbine and duct burner during the commissioning period shall be as follows: VOC, 6.20 lb/mmescf; PM10, 14.01 lb/mmescf.

After commissioning, the emission factors of the gas turbine and duct burner shall be as follows: VOC, 4.14 lb/mmescf; PM: 9.78 lb/mmescf.

The emission factors for the boilers 86-B-9000, 86-B-9001, 86-B-9002 shall be as follows: VOC, 5.5 lb/mmescf; PM10, 7.6 lb/mmescf.

The VOC and PM10 emission factors for boilers 86-B-9000, 86-B-9001, 86-B-9002 shall be revised annually based on results of individual VOC and PM10 source tests performed as specified in permit condition D29.x1. The VOC and PM10 emission factor shall be calculated as the average emission rate in lb/mmescf from all valid source test runs during the annual source test.

The VOC and PM10 emission factors for the gas turbine and duct burner shall be revised initially and annually, thereafter, based on the results of individual VOC and PM10 source tests performed as specified in permit conditions D29.x2 and D29.x3. The VOC and PM10 emission factor shall be calculated as the average emission rate in lb/mmescf from all valid source test runs during the annual source test.

The operator shall maintain records in a manner approved by the District to demonstrate compliance with this condition and the records shall be made available to District personnel upon request.

[RULE 1303(b)(2)–Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002; RULE 1313, 12-7-1995]

[Devices subject to this condition: D377, D378, D1550, DX1, DX2]

A195.15 The 0.01 lb/mmBTU NO_x emission limit(s) is averaged over 365 rolling days and based on the HHV.

This Consent Decree interim NO_x emission limit is calculated by CEMS data measured and recorded in accordance with Rule 2012.

This emission limit shall only apply during the interim emission reduction period from January 1, 2010 to December 31, 2011.

[Consent Decree Valero, 6-16-2005]

[Devices subject to this condition: D378]

A327.1 For the purpose of determining compliance with District Rule 476, combustion contaminant emissions may exceed the concentration limit or the mass emission limit listed, but not both limits at the same time.



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

[RULE 476, 10-8-1976]

[Devices subject to this condition: D378, D1550, DX1, DX2]

B. Material/Fuel Type Limits

B61.2 The operator shall not use fuel gas containing the following specified compounds:

Compound	ppm by volume
H2S	greater than 160

The H2S concentration limit of 160 ppm shall be based on a rolling 3-hour averaging period at the standard condition of 60 °F and 14.7 psia, as defined in Rule 102. This H2S concentration limit of 160 ppm is equivalent to 162 ppm at the standard conditions of 68 °F and 29.92 inches Hg, as defined as 40CFR 60 Subpart A.

[40CFR 60 Subpart J, 6-24-2008]

[Devices subject to this condition: D3, D6, D8, D9, D12, D22, D38, D52, D53, D59, D60, D73, D74, D98, D377, D378, D429, D430, D768, D1550]

D. Monitoring and Testing Requirements

D28.11 The operator shall conduct source test(s) in accordance with the following specifications:

The District shall be notified of the date and time of the test at least 10 days prior to the test.

The test shall be conducted when this equipment is operating at 80 percent or greater of its maximum design heat rating, or within a capacity approved by the District.

The test shall be conducted to determine the CO emissions at the outlet.

The test shall be conducted at least annually. If equipment has not been in operation during the calendar year, the source test does not have to be conducted. The source test shall be conducted in the calendar year the equipment resumes operation. The Facility Permit holder shall keep records to demonstrate that the equipment had not been operated. Upon resumption of operation, the Facility Permit holder shall keep records of each day operated.

[Devices subject to this condition: D377]



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[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; RULE 407, 4-2-1982]

[Devices subject to this condition: D9, D59, D 60, D73, D377]

D29.x1 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	Approved District Method	1 hour (15 percent oxygen)	Stack Outlet
VOC emissions	Approved District Method	1 hour (15 percent oxygen)	Stack Outlet

The test shall be conducted when this equipment is operating at 80 percent or greater of the maximum design capacity at which ammonia injection occurs during the PM10 test.

The test(s) shall be conducted at least annually. If equipment has not been in operation during the calendar year, the source test does not have to be conducted. The source test shall be conducted in the calendar year the equipment resumes operation. The Facility Permit holder shall keep records to demonstrate that the equipment had not been operated. Upon resumption of operation, the Facility Permit holder shall keep records of each day operated.

The District shall be notified of the date and time of the test at least 10 days prior to the test.

Source test results shall include the following parameters: fuel gas usage of the boiler, amount of ammonia injected, if applicable, for NOx control, the flue gas flow rate, and Higher Heating Value (HHV) of fuel gas other than natural gas.

The test shall be conducted to demonstrate compliance with Rules 1303(b)(1)-BACT, 1303(b)(2)-Offsets, 409, and 476.

[RULE 1303(b)(1)-BACT, 5-10-1996; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997; RULE 409, 8-7-1981; RULE 476, 10-8-1976]

[Devices subject to this condition: D377, D378 , D1550]

D90.3 The operator shall continuously monitor the H2S concentration in the fuel gas before being burned in this device according to the following specifications:



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

The operator shall use an NSPS Subpart J approved instrument meeting the requirements of 40CFR60 Subpart J to monitor the parameter.

The operator shall also install and maintain a device to continuously record the parameter being monitored.

The operator may monitor the H2S concentration at a single location for fuel combustion devices, if monitoring at this location accurately represents the concentration of H2S in the fuel gas being burned in this device.

[40CFR 60 Subpart J, 6-24-2008]

Devices subject to this condition: D3, D6, D8, D9, D12, D22, D38, D52, D53, D59, D60, D73, D74, D98, D377, D378, D429, D430, D768, D1550]

D328.1 The operator shall determine compliance with the CO emission limit(s) either: (a) conducting a source test at least once every five years using AQMD method 100.1 or 10.1; or (b) conducting a test at least annually using a portable analyzer and AQMD-approved test method. The test shall be conducted when the equipment is operating under normal conditions to demonstrate compliance with the CO emission limit(s). The operator shall comply with all general testing, reporting, and recordkeeping requirements in Sections E and K of this permit.

[RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997; RULE 407, 4-2-1982]

[Devices subject to this condition: D3, D6, D8, D12, D22, D52, D53, D98, D378, D429, D768]

H. Applicable Rules

H23.5 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
H2S	40CFR60, SUBPART	J

[40CFR 60 Subpart J, 6-24-2008]

Devices subject to this condition: D3, D6, D8, D9, D12, D22, D38, D52, D53, D59, D60, D73, D74, D98, D377, D378, C400, C402, C403, D429, D430, D768, D1550]