



**FACILITY PERMIT TO OPERATE
CHEVRON PRODUCTS COMPANY**

SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS
The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connect To	RECLAIM Source	Emissions and Requirements	Conditions
PROCESS 6: HYDROGEN GENERATION					P13.1
SYSTEM 5: SNR HEATING SYSTEM					S31.12
HEATER, REFORMER, F-1330, REFINERY/NATURAL GAS, BORN HEATERS, WITH LOW NOX BURNER, 653 MMBTU/HR WITH BURNER, REFINERY/ NATURAL GAS, JOHN ZINK, MODEL FPMR-4 (64 BURNERS), MODEL FPMR-6 (320 BURNERS) WITH LOW NOX BURNER, 384 TOTAL; 653 MMBTU/HR A/N: 527112	D3530	C3533	NOX: MAJOR SOURCE**; SOX: MAJOR SOURCE**	CO: 25 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10-1996]; CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; NOX: 5 PPMV (4) [RULE 2005, 4-20-2001]; PM: (9) [RULE 404, 2-7-1986]; PM: 0.1 GRAINS/SCF (5) [RULE 409, 8-7-1981]	A63.24, A99.1, A99.2, A195.1, A195.27, B61.1, B61.6, C1.30, C1.152, D29.15, D82.4, D90.20, H23.2
STACK, REFORMER A/N: 527112	S3532	C3533			
BOILER, WASTE HEAT, E-1330, 148.53 MMBTU/HR (UNFIRED) A/N: 527112	D3518				
BLOWER, FURNACE FORCED DRAFT, K-1330, 900 H.P. A/N: 527112	D3523				
BLOWER, FURNACE INDUCED DRAFT, K-1331, 1750 H.P. A/N: 527112	D3524				
SELECTIVE CATALYTIC REDUCTION, HALDOR TOPSOE, OR APPROVED EQUIVALENT CATALYST, 691 CU. FT. TOTAL WITH AMMONIA INJECTION, AQUEOUS A/N: 405268	C3533	D3530 S3532		NH3: 20 PPMV (4) [RULE 1303(a)(1)-BACT, 5-10-1996]	A99.3, A195.28, D12.3, D12.11, D29.4, E71.5, E193.5
BLOWER, K-1332A, SCR FLUE GAS, 75 H.P. A/N: 527112	D3525				
BLOWER, K-1332B, SCR FLUE GAS, 75 H.P., (SPARE) A/N: 527112	D3526				



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PROCESS CONDITIONS

P13.1 All devices under this process are subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
Benzene	40CFR61	Subpart FF

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

[Processes subject to this condition: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16]

SYSTEM CONDITIONS

S31.12 The following BACT requirements shall apply to VOC service fugitive components associated with the devices that are covered by application number(s) 341340, 358451 and 391638:

The operator shall provide to the District, no later than 60 days after initial startup, a recalculation of the fugitive emissions based on actual components installed and removed from service. The valves and flanges shall be categorized by size and service. The operator shall submit a listing of all new non-bellows seal valves which shall be categorized by tag no., size, type, operating temperature, operating pressure, body material, application, and reasons why bellows seal valves were not used.

All new valves in VOC service, except those specifically exempted by Rule 1173, shall be bellows seal valves, except as approved by the District, in the following applications: heavy liquid service, control valve, instrument piping/tubing, applications requiring torsional valve stem motion, applications where valve failure could pose safety hazard (e.g., drain valves with valve stems in horizontal position), retrofits/special applications with space limitations, and valves not commercially available.

Valves not commercially available include valves with sizes above 8", special alloys for sizes above 2", and special connections for sizes above 2". All new valves and major components in VOC service as defined by Rule 1173, except those specifically exempted by Rule 1173 and those in heavy liquid service as defined in R1173, shall be distinctly identified from other components through their tag numbers (e.g., numbers ending in the letter "N"), and shall be noted in the records.

All new components in VOC service as defined in Rule 1173, except valves and flanges, shall be inspected quarterly using EPA reference Method 21. All new valves and flanges in VOC service, except those specifically exempted by Rule 1173, shall be inspected monthly using EPA Method 21.

If 98.0 percent or greater of the new (non-bellows seal) valves and the new flange population inspected is found to leak gaseous or liquid volatile organic compounds at a rate less than 500 ppmv for two consecutive months, then the operator may change to a quarterly inspection program with the approval of the District.



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The operator shall revert from quarterly to monthly inspection program if less than 98.0 percent of the new (non-bellows seal) valves and the new flange population inspected is found to leak gaseous or liquid volatile organic compounds at a rate less than 500 ppmv.

All new components in VOC service with a leak greater than 500 ppmv but less than 1,000 ppmv, as methane, measured above background using EPA Method 21 shall be repaired within 14 days of detection. Components shall be defined as any valve, fitting, pump, compressor, pressure relief valve, diaphragm, hatch, sight-glass, and meter, which are not exempted by Rule 1173.

The operator shall keep records of the monthly inspection (quarterly where applicable), subsequent repair, and reinspection, in a manner approved by the District. Records shall be kept and maintained for at least two years, and shall be made available to the Executive Officer or his authorized representative upon request.

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

[Systems subject to this condition: Process 6, System 4, 5; Process 20, System 31]

DEVICE CONDITIONS

A63.24 The operator shall limit emissions from this equipment as follows:

Contaminant	Emissions Limit
VOC	Less than or equal to 48.6 lbs in any one day
PM10	Less than or equal to 117.5 lbs in any one day
CO	Less than or equal to 297.5 lbs in any one day

For compliance purposes, the operator shall calculate the PM10 and VOC emissions using fuel usage during the calendar month as determined by a RECLAIM certified fuel meter and emission data from the most recent source test performed according to permit condition D29.x1. The source test emissions data will be converted to lb/mmcf, multiplied by the actual calendar month fuel usage, and divided by 30 to determine the daily mass emissions. For compliance determination purposes, CO emissions shall be calculated based on certified continuous monitor, which shall have the capability to show cumulative daily emissions.

[RULE 1303(b)(2)-Offset, 5-10-1996]

[Devices subject to this condition: D3530]

A99.1 The 5 PPM NOx emission limit(s) shall not apply during startup and shutdown.

[Rule 2005, 5-6-2005]

Devices subject to this condition: D3530]

A99.2 The 25 PPM CO emission limit(s) shall not apply during startup and shutdown.

[RULE 1303(a)(1)-BACT, 5-10-1996]

[Devices subject to this condition: D3530]



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

A99.3 The 20 PPM NH3 emission limit(s) shall not apply during startup and shutdown.

[RULE 1303(a)(1)-BACT, 5-10-1996]

[Devices subject to this condition: C1967, C3533]

A195.1 The 5 PPMV NOx emission limit(s) is averaged over 3 hours, 3 percent O2, dry basis.

[Rule 2005, 5-6-2005]

[Devices subject to this condition: D3530]

A195.27 The 25 PPMV CO emission limit(s) is averaged over 1 hour, 3 percent O2, dry basis.

[RULE 1303(a)(1)-BACT, 5-10-1996]

[Devices subject to this condition: D3530]

A195.28 The 20 PPMV NH3 emission limit(s) is averaged over 1 hour, 3 percent O2, dry basis.

[RULE 1303(a)(1)-BACT, 5-10-1996]

[Devices subject to this condition: C3533]

B61.1 The operator shall not use refinery gas containing the following specified compounds:

Compound	ppm by volume
Total Sulfur as H2S greater than	100

The 100 ppmv total sulfur limit shall be based on a rolling 1-hour averaging period.

[RULE 1303(a)(1)-BACT, 5-10-1996]

[Devices subject to this condition: D3530]

B61.6 The operator shall not use fuel gas, except uncombined natural gas, containing the following specified compounds:

Compound	ppm by volume
H2S greater than	160

The H2S concentration limit shall be based on a rolling 3-hour averaging period

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

[Devices subject to this condition: D84, D471, D472, D473, D641, D643, D3031, D3530, C3805, C3806]



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

C1.30 The operator shall limit the duration of startup or shutdown to no more than 21 hour(s).

The operator shall maintain records in a manner approved by the District, to demonstrate compliance with this condition.

[**RULE 2012, 1-7-2005**]

[Devices subject to this condition: D3530]

C1.152 The operator shall limit the firing rate to no more than 653 MM Btu per hour.

For the purpose of this condition, firing rate shall be defined as the sum total of energy or heat inputs to the equipment combustion chamber based on the higher heating values (HHVs) of the natural gas and/or refinery fuel gas used.

To comply with this condition, the operator shall install and maintain continuous fuel flow meters for the refinery fuel gas and natural gas streams fed to the heater. The operator shall also install a continuous or semi-continuous HHV analyzer for the refinery fuel gas stream. The operator shall use the RECLAIM default HHV value for natural gas.

The operator shall also install and maintain a device to continuously record the parameters being measured.

This limit shall be based on a rolling 1 hour averaging period

[**RULE 1303(b)(2)-Offset, 5-10-1996**]

[Devices subject to this condition: D3530]

D12.3 The operator shall install and maintain a(n) differential pressure gauge to accurately indicate the differential pressure across the SCR catalyst beds in inches water column.

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

The measuring device or gauge shall be accurate to within +/- 5 percent. It shall be calibrated once every twelve months.

For the purpose of this condition, continuously record shall be defined as recording at least once every week and shall be calculated based upon the average of the continuous monitoring for that week.

[**RULE 1303(a)(1)-BACT, 5-10-1996**]

[Devices subject to this condition: C85, C162, C469, C1967, C3533]

D12.11 The operator shall install and maintain a(n) continuous monitoring system to accurately indicate the temperature at the inlet to the SCR catalyst bed.

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

The measuring device or gauge shall be accurate to within +/- 5 percent. It shall be calibrated once every 12 months according to manufacturers recommended procedure.



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For the purpose of this condition, continuously record shall be defined as recording at least once every hour and shall be calculated based upon the average of the continuous monitoring for that hour

[RULE 1303(a)(1)-BACT, 5-10-1996]

[Devices subject to this condition: C3533]

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
NH3 emissions	Approved District Method(s)	District-approved averaging time	Outlet

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

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

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997]

[Devices subject to this condition: C85, C162, C469, C3533]

D29.15 The operator shall conduct source test(s) for the pollutant(s) identified below.

Pollutant(s) to be tested	Required Test	Averaging Time	Test Location
NOx emissions	District Method 100.1	1 hour	Stack Outlet
SOx emissions	District Method 100.1 or 6.1	1 hour	Stack Outlet
CO emissions	District Method 100.1 or 10.1	1 hour	Stack Outlet
ROG emissions	District Method 25.1 or 25.3	1 hour	Stack Outlet
PM emissions	District approved method	District approved averaging time	Stack Outlet
PM10 emissions	District approved method	District approved averaging time	Stack Outlet

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

Source test shall be conducted when this equipment is operating at 70 percent or greater of maximum design capacity or at 80 percent or greater of the maximum daily hydrogen production rate demonstrated over the last one year period.

The test shall be conducted to determine the concentration and report the mass emission rate in pounds per hour for NOx, SOx, ROG, CO, Total PM, and PM10.



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The test shall be conducted to determine the oxygen concentration. In addition, the tests shall measure the fuel flow rate (CFH) and flue gas flow rate.

Source test data for NO_x, SO_x, CO and O₂ may be substituted with CEMS data. The CEMS data for the time period of the ROG and PM₁₀ source tests shall be included in the source test report.

The test shall be conducted after District approval of a source test protocol submitted in accordance with Section E- Administrative Conditions.

The test shall be conducted and test report submitted to the District in accordance with Section E - Administrative Conditions.

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

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1401, 3-5-2005; RULE 2005, 4-20-2001; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997; RULE 407, 4-2-1982]

[Devices subject to this condition: D3530]

D82.4 The operator shall install and maintain a CEMS to measure the following parameters:

CO concentration in ppmv

Concentrations shall be corrected to 3 percent oxygen on a dry basis.

Oxygen concentration in percent volume

The CEMS shall be installed to continuously record the actual stack concentration and the corrected stack concentration for CO along with the stack O₂ concentration. The monitoring system shall comply with the requirements of District Rule 218.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 3004(a)(4)-Periodic Monitoring, 12-12-1997; RULE 407, 4-2-1982]

[Devices subject to this condition: D2216, D3530]

D90.20 The operator shall continuously monitor the H₂S concentration in fuel gases before being burned in this device according to the following specifications:

The operator shall use Gas Chromatograph 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: D84, D471, D472, D473, D641, D643, D3031, D3530]



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

E71.5 The operator shall only inject ammonia into this equipment if the flue gas inlet temperature is at least 510 degrees F.

[RULE 1303(a)(1)-BACT, 5-10-1996]

[Devices subject to this condition: C3533]

E193.5 The operator shall construct, operate, and maintain this equipment according to the following specifications:

To establish equivalency of a catalyst, the operator shall submit the following information for the catalyst to the District permitting engineer: manufacturer, description (type), configuration, dimensions (per block), number of blocks, total volume, space velocity, life, vendor performance guarantee, performance curve (versus temperature), minimum operating temperature, estimated SO₂ to SO₃ conversion, estimated NO to NO₂ conversion, and concentration of Rule 1401 TACs.

The operator shall not install and use an “equivalent” catalyst until approval is received in writing from the District.

[RULE 1303(a)(1)-BACT, 5-10-1996]

[Devices subject to this condition: C2210, C2213, C2217, C3058, C3533]

H23.2 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: D84, D471, D472, D473, D641, D643, D3031, C3148, D3530, C3805, C3806]