



**FACILITY PERMIT TO OPERATE
TESORO REFINING AND MARKETING CO**

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE
The operator shall comply with the terms and conditions set forth below:

Equipment	ID No.	Connected To	RECLAIM/ Source Type/ Monitoring Unit	Emissions and Requirements	Conditions
Process 18: STEAM GENERATION					
BOILER BO-11, REFINERY FUEL GAS/NATURAL GAS, RENTECH, 352 MMBTU/HR, FGR, WITH A/N 484366	D1629	C1631	NOX: MAJOR SOURCE** ; SOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; CO: 50 PPMV (4) [RULE 1703(a)(2)-PSD BACT, 10-7-1988] NOX (COMMIS): 74.2 LBS/MM SCF (1A)[RULE 2012, 5-6-2005]; NOX: 5 PPMV NATURAL GAS (4) [RULE 2005,5-6-2005] ; NOX: 9 PPMV (4) [Rule 2005 BACT, 4-20-2001]; NOX: 7 PPMV(Monthly) (4) [Rule 2005 BACT, 4-20-2001]; ; NOX: 0.2 LBS/MMBTU (8) [40CFR 60 Subpart Db,1-28-2009] NOX: 0.035 LBS/MMBTU (1) [RULE 2012, 5-6-2005]; PM: 0.01 GRAINS/SCF (5) [RULE 476, 10-8-1976] PM: 11 LBS/HR (5A) [RULE 476, 10-8-1976] PM: 0.051LBS/MMBTU (8) [40CFR 60 Subpart Db,1-28-2009] PM: 0.1 GRAIN/SCF (5) [RULE 409, 8-7-1981]; PM (9) [RULE 404, 2-7-1986], SOX: 34 LBS/MMSCF (1) [RULE 2011, 5-6-2005] SOX (COMMIS): 6.65LBS/MMSCF (1) [RULE 2011, 5-6-2005]	A63.9, A99.11, A99.12, A99.13, A99.14, A99.15, A99.16, A195.12, A195.13, A195.14, A195.15, A195.16 A327.2,, B59.7, B61.8, B61.10 C1.52, D29.12, D29.13, D82.5, D82.6, D90.20, D90.21, I296.3, K40.3, K67.14
BURNER REFINERY GAS/NATURAL GAS, COEN - TODD, Variflame, WITH LOW NOX BURNER 352 MMBTU/HR A/N 484366	B1630				



**FACILITY PERMIT TO OPERATE
TESORO REFINING AND MARKETING CO**

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

SELECTIVE CATALYTIC REDUCTION, SERVING BOILER BO-11, WITH 608 CUBIC FEET CATALYST VOLUME, CORMETECH OR EQUIVALENT, WITH A/N 484364	C1631	D1629		NH3: 5 PPMV (4) [RULE 1303 (a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	D12.10, D12.11, D12.12, D29.10, E73.5, E179.3, E179.4
AMMONIA INJECTION	B1633				
BOILER BO-12, REFINERY FUEL GAS/NATURAL GAS, RENTECH, 352 MMBTU/HR, FGR, WITH A/N 484362	D1634	C1636	NOX: MAJOR SOURCE** ; SOX: MAJOR SOURCE**	CO: 2000 PPMV (5) [RULE 407, 4-2-1982]; CO: 50 PPMV (4) [RULE 1703(a)(2)-PSD BACT, 10-7-1988] NOX (COMMIS): 74.2 LBS/MM SCF (1A)[RULE 2012, 5-6-2005]; NOX: 5 PPMV NATURAL GAS (4) [RULE 2005,5-6-2005] ; NOX: 9 PPMV (4) [Rule 2005 BACT, 4-20-2001]; NOX: 7 PPMV(Monthly) (4) [Rule 2005 BACT, 4-20-2001]; ; NOX: 0.2 LBS/MMBTU (8) [40CFR 60 Subpart Db,1-28-2009] NOX: 0.035 LBS/MMBTU (1) [RULE 2012, 5-6-2005]; PM: 0.01 GRAINS/SCF (5) [RULE 476, 10-8-1976] PM: 11 LBS/HR (5A) [RULE 476, 10-8-1976] PM: 0.051LBS/MMBTU (8) [40CFR 60 Subpart Db,1-28-2009] PM: 0.1 GRAIN/SCF (5) [RULE 409, 8-7-1981]; PM (9) [RULE 404, 2-7-1986], SOX: 34 LBS/MMSCF (1) [RULE 2011, 5-6-2005] SOX (COMMIS): 6.65LBS/MMSCF (1) [RULE 2011, 5-6-2005]	A63.9, A99.11, A99.12, A99.13, A99.14, A99.15, A99.16, A195.12, A195.13, A195.14, A195.15, A195.16 A327.2, B59.7, B61.8, B61.10, C1.52, D29.12, D29.13, D82.5, D82.6, D90.20, D90.21, I296.3, K40.3, K67.14
BURNER REFINERY GAS/NATURAL GAS, COEN- TODD, Variflame, WITH LOW NOX BURNER 352 MMBTU/HR	B1635				



**FACILITY PERMIT TO OPERATE
TESORO REFINING AND MARKETING CO**

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE
The operator shall comply with the terms and conditions set forth below:

A/N 484362					
SELECTIVE CATALYTIC REDUCTION, SERVING BOILER BO-12, WITH 608 CUBIC FEET CATALYST VOLUME, CORMETECH OR EQUIVALENT, WITH A/N 484365	C1636	D1634		NH3: 5 PPMV (4) [RULE 1303 (a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]	D12.10, D12.11, D12.12, D29.10, E73.5, E179.3, E179.4
AMMONIA INJECTION	B1637				
Process 15: STORAGE TANKS					
System 6: STORAGE TANKS, OTHERS					
STORAGE TANK, PRESSURIZED, AQUEOUS AMMONIA, 19.9% SOLUTION OR LESS, 12000 GALS, WITH A VAPOR BALANCE SYSTEM, WITH A/N 484367	D1628				C157.1, E144.1

A. Emission Limits

A63.9 The operator shall limit emissions from this equipment as follows:

CONTAMINANT	EMISSIONS LIMIT
PM10	Less than or equal to 2768 LBS IN ANY ONE MONTH
VOC	Less than or equal to 1049 LBS IN ANY ONE MONTH

The operator shall calculate the monthly emissions for PM10 and VOC using either the equation below and the emission factors: VOC= 0.0040 lb/MMBTU and PM10 = 0.01056 lb/MMBTU or the results of the most recent source test whichever is higher.

Monthly Emissions, lb/month = X*(EF); Where X= monthly heat input , MMBTU/month ; and EF = emission factor indicated above

[RULE 1303(b)(2)-Offset, 5-10-1996]
[Devices subject to this condition : D1629, D1634]

A99.11 The 6.65 LBS/MMSCF SOX emission limit(s) shall only apply during initial boiler commissioning to report RECLAIM emissions. The commissioning reporting period shall not exceed 498 hours for the duration of no more than 100 days from entry into RECLAIM.

[RULE 2011, 5-6-2005]
[Devices subject to this condition : D1629, D1634]



FACILITY PERMIT TO OPERATE TESORO REFINING AND MARKETING CO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

A99.12 The 34 LBS/MMSCF SOX emission limit(s) shall only apply during the interim reporting period after initial boiler commissioning when the boiler is operating to report RECLAIM emissions. The interim reporting shall not exceed 12 months from entry into RECLAIM.

[RULE 2011, 5-6-2005]

[Devices subject to this condition : D1629, D1634]

A99.13 The 9, 7 and 5 PPM NOX emission limit(s) shall not apply during boiler commissioning, startup, and shutdown periods. The commissioning period shall not exceed 498 operating hours for the duration of no more than 100 days. Cold start shall be restricted to the followings: maximum of 5 hrs per event, maximum of 48 events per year, no more than 14.5 lbs NOx per event. Shutdown periods shall not exceed 30 minutes per event, 24 hours per year.

For the purposes of this condition, start-up and shutdown shall be defined as the period when the exhaust temperature of entering the SCR catalyst bed is below 546 degree F.

Written records of commissioning, start-ups and shutdowns shall be maintained and made available upon request from the Executive Officer of his designee

[RULE 2005, 4-20-2001; RULE 2005, 5-6-2005]

[Devices subject to this condition : D1629, D1634]

A99.14 The 50 PPM CO emission limit(s) shall not apply during boiler commissioning, start-up, and shutdown periods. Start-up shall not exceed 4 hours for each startup. Shutdown time shall not exceed 30 minutes per shutdown. The commissioning period shall not exceed 498 operating hours. The boiler shall be limited to a maximum of 48 start-ups per year. Written records of commissioning, start-ups and shutdowns shall be maintained and made available upon request from the Executive Officer or his designee.

For the purposes of this condition, start-up and shutdown shall be defined as the period when the exhaust temperature of this equipment is below 546 degree F.

[RULE 1703(a)(2) - PSD-BACT, 10-7-1988]

[Devices subject to this condition : D1629, D1634]

A99.15 The 74.2 LBS/MMSCF NOX emission limit(s) shall only apply during initial boiler commissioning to report RECLAIM emissions. The commissioning period shall not exceed 100 days from entry into RECLAIM. The NOx emission limit shall be defined as NOx emission factor.

[RULE 2012, 5-6-2005]

[Devices subject to this condition : D1629, D1634]

A99.16 The 0.035 LBS/MMSCF NOX emission limit(s) shall only apply during the interim reporting period after initial boiler commissioning to report RECLAIM emissions. The interim reporting shall not exceed 12 months from entry into RECLAIM. The NOx emission limit shall be defined as NOx emission factor.

[RULE 2012, 5-6-2005]

[Devices subject to this condition : D1629, D1634]

A195.12 The 9 PPMV NOX emission limit(s) is averaged over 1 hour at 3 percent O2 dry.



FACILITY PERMIT TO OPERATE TESORO REFINING AND MARKETING CO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

The 9 ppm (1- hour) NO_x shall apply when the boiler fires refinery fuel gas or a mixture of refinery fuel gas and natural gas with $\geq 50\%$ of heat input from refinery fuel gas.

This NO_x hourly emission limit shall be calculated based on the measured NO_x emissions using a certified RECLAIM CEMS and the heat input during all boiler operating hours except during:

Any District required source test performed without ammonia

Periods of the exhaust temperature entering the SCR catalyst is less than 546 degree F, which is the minimum ammonia injection temperature:.

RATA testing; RECLAIM Missing Data Period; Calibration and maintenance periods; Equipment breakdown periods as defined in Rule 2004; and periods of zero fuel flow.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 2005, 5-6-2005]
[Devices subject to this condition : D1629, D1634]

A195.13 The 7 PPMV NO_x emission limit(s) is averaged over a calendar month and is at dry conditions, corrected to 3 percent oxygen.

The 7 ppm(monthly) NO_x shall apply when the boiler fires refinery fuel gas or a mixture of refinery fuel gas and natural gas with $\geq 50\%$ of heat input from refinery fuel gas.

This NO_x calendar monthly emission limit shall be calculated based on the measured NO_x emissions using a certified RECLAIM CEMS and the heat input during all boiler operating hours for the calendar month except during:

Any District required source test performed without ammonia

Periods of the exhaust temperature entering the SCR catalyst is less than 546 degree F, which is the minimum ammonia injection temperature:.

RATA testing; RECLAIM Missing Data Period; Calibration and maintenance periods; Equipment breakdown periods as defined in Rule 2004; and periods of zero fuel flow.

A data acquisition system(DAS) shall be installed and maintained to record the parameters necessary to determine the calendar monthly NO_x concentration. In addition, the DAS shall calculate and display on demand the average monthly NO_x PPM.

Any concentration to DAS data and calculation shall be completed within 72 hours after the end of the calendar month. The recorded parameters and the calculated average monthly NO_x PPM shall be kept for a period as stated in the section E of this facility permit and shall be readily available to the District personnel upon request.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 2005, 5-6-2005]
[Devices subject to this condition : D1629, D1634]

A195.14The 50 PPMV CO emission limit(s) is averaged over 1 hour at 3 percent O₂ dry.

[RULE 1703(a)(2) - PSD-BACT, 10-7-1988]
[Devices subject to this condition : D1629, D1634]



FACILITY PERMIT TO OPERATE TESORO REFINING AND MARKETING CO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

A195.15 The 5 PPMV NH₃ emission limit(s) is averaged over 1 hour at 3 percent O₂ dry.

The operator shall calculate and continuously record the NH₃ slip concentration using the following: $NH_3(ppmv) = [a - (b \cdot c / 1E6)] \cdot 1E6 / b$, where a = NH₃ injection rate (lb/hr) / 17 (lb/lbmole), b = dry exhaust gas flow rate (scf/hr) / 385.3 scf/lbmole, and c = change in measured NO_x across the SCR (ppmv at 3 percent O₂). The operator shall install and maintain a NO_x analyzer to measure the SCR inlet NO_x ppm accurate to within plus or minus 5 percent calibrated at least once every 12 months.

The NO_x analyzer shall be installed and operated within 90 days of initial start up.

The operator shall use the method described above or another alternative method approved by the Executive Officer.

The ammonia slip calculation procedures described above shall not be used for compliance determination for emission information determination without corroborative data using an approved reference test method for the determination of ammonia.

[RULE 1303(a)(1)-BACT, 5-10-1996]
[Devices subject to this condition : D1629, D1634]

A195.16 The 5 PPMV NO_x emission limit(s) is averaged over 1 hour at 3 percent O₂ dry.

The 5 ppm (1- hour) NO_x limit shall apply when the boiler fires natural gas or a mixture of refinery fuel gas and natural gas with <50% of heat input from refinery fuel gas.

This NO_x hourly emission limit shall be calculated based on the measured NO_x emissions using a certified RECLAIM CEMS and the heat input during all boiler operating hours except during:

Any District required source test performed without ammonia

Periods of the exhaust temperature entering the SCR catalyst is less than 546 degree F, which is the minimum ammonia injection temperature

RATA testing; RECLAIM Missing Data Period; Calibration and maintenance periods; Equipment breakdown periods as defined in Rule 2004; and periods of zero fuel flow

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 2005, 5-6-2005]
[Devices subject to this condition : D1629, D1634]

A327.2 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.

[RULE 476, 10-8-1976]
[Devices subject to this condition : D1629, D1634]

B. Material/Fuel Type Limits

B59.7 The operator shall only use the following material(s) in this device :



**FACILITY PERMIT TO OPERATE
TESORO REFINING AND MARKETING CO**

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

Refinery fuel gas meeting sulfur limit specified by condition B61.8, natural gas, or mixture of refinery fuel gas and natural gas

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]
[Devices subject to this condition : D1629, D1634]

B61.8 The operator shall not use fuel gas containing the following specified compounds:

<u>Compound</u>	<u>ppm by volume</u>
total sulfur compounds calculated as H2S greater than	40

The total reduced sulfur concentration limit shall apply to refinery fuel gas and be based on one-hour averaging period and measured before blending with natural gas

[RULE 1303(b)(2)-Offset, 5-10-1996; RULE 1303(b)(2)-Offset, 12-6-2002]
[Devices subject to this condition : D1629, D1634]

B61.10 The operator shall not use fuel gas containing the following specified compounds:

<u>Compound</u>	<u>ppm by volume</u>
H2S greater than	162
H2S greater than	60

The 162 ppm limit shall be based on a rolling 3-hour averaging period

The 60 ppm limit shall be based on a rolling 365 successive calendar day rolling average

[40CFR 60 Subpart Ja, 6-24-2008] [Devices subject to this condition : D1629, D1634]

C1.52 The operator shall limit the heat input to no more than 352 MM Btu per hour.

The purpose(s) of this condition is to ensure that this equipment qualifies for the offset exemption under the functional identical replacement of the existing boilers

[RULE 1303(b)(2)-Offset, 12-6-2002; RULE 1303(b)(3), 5-10-1996]

[Devices subject to this condition : D1629, D1634]

D. Monitoring/Testing Requirements

D29.12 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
NOX emissions	District method 100.1	1 hour	Outlet of the SCR
CO emissions	District method 100.1	1 hour	Outlet of the SCR



**FACILITY PERMIT TO OPERATE
TESORO REFINING AND MARKETING CO**

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

- SOX emissions Approved District Method District approved averaging time fuel sample
- VOC emissions Approved District Method 1 hour Outlet of the SCR
- PM10 emissions Approved District Method District approved averaging time Outlet of the SCR

The test shall be conducted after AQMD approval of the source test protocol, but no later than 180 days after initial start-up. The AQMD shall be notified of the date and time of the test at least 10 days prior to the test.

The test shall be conducted to determine the oxygen levels in the exhaust. In addition, the test shall record the fuel flow rate(CFH), the flue gas flowrate.

The test shall be conducted in accordance with AQMD approved source test protocol. The protocol shall be submitted to the AQMD (attention Sawsan Andrawis)no later than 45 days before the proposed test date and shall be approved by the AQMD before test commences. The test protocol shall include the proposed operating conditions of the boiler during the test, the identity of the testing lab, a statement from the testing lab certifying that it meets the criteria of Rule 304, and a description of all sampling and analytical procedures.

The test shall be conducted when this equipment is operating at maximum, average, and minimum load.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)-Offset, 5-10- 1996; RULE 1303(b)(2)-Offset, 12-6-2002; ; RULE 1703(a)(2) - PSD-BACT, 10-7-1988; RULE 2005, 4-20-2001; RULE 2005, 5-6-2005]

[Devices subject to this condition : D1629,D1634]

D29.13 The operator shall conduct source test(s) for the pollutant(s) identified below.

<u>Pollutant(s) to be tested</u>	<u>Required Test Method(s)</u>	<u>Averaging Time</u>	<u>Test Location</u>
VOC emissions	Approved District Method	1 hour	Outlet of the SCR
PM10 emissions	Approved District Method	District approved averaging time	Outlet of the SCR

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

The test shall be conducted and the results submitted to the AQMD within 60 days after the test date.

The AQMD shall be notified of the date and time of the test at least 7 days prior to the test.

The test shall be conducted when this equipment is operating at least at 80 percent of maximum load.

The test shall be conducted to demonstrate compliance with all applicable emission limits.



FACILITY PERMIT TO OPERATE TESORO REFINING AND MARKETING CO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 1303(b)(2)- Offset, 5-10- 1996; RULE 1303(b)(2)-Offset, 12-6-2002]; RULE 3004(a)(4)-Periodic Monitoring,12-12-19]
Devices subject to this condition : D1629, D1634]

D82.5 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.

The CEMS shall be installed and operated no later than 90 days after initial start up of the boiler and in accordance with an approved AQMD Rule 218 CEMS plan application. The operator shall not install the CEMS prior to receiving initial approval. Within two weeks of the boiler start-up, the operator shall provide written notification to the AQMD of the exact date of start-up

RULE 1703(a)(2) - PSD-BACT, 10-7-1988;
[Devices subject to this condition : D1629, D1634]

D82.6 The operator shall install and maintain a CEMS to measure the following parameters:

NOX concentration in ppmv at the outlet of the SCR serving the equipment

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

The CEMS shall be installed and operating no later than 90 days after initial start up of the boiler and shall comply with the requirements of Rule 2012. During the interim period between the initial start-up and the provisional certification date of the CEMS, the operator shall comply with the monitoring requirements of Rule 2012(h)(2) and 2012(h)(3). Within two weeks of boiler start-up date, the operator shall provide written notification to the District of the exact date of start-up

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(b)(2)-Offset, 5-10-1996]
[Devices subject to this condition : D1629, D1634]

D90.20 The operator shall continuously monitor the H2S concentration in the 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 Ja 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 Ja, 6-24-2008]
[Devices subject to this condition : D1629, D1634]

D90.21 The operator shall continuously monitor the total sulfur compounds calculated as H2S concentration in the fuel gases before being burned in this device and before blending with natural gas according to the following specifications:



FACILITY PERMIT TO OPERATE TESORO REFINING AND MARKETING CO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

The CEMS shall be approved by the District before the initial start-up

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

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

[RULE 2005, 5-6-2005]

[Devices subject to this condition : D1629, D1634]

I. Administrative

I296.3 This equipment shall not be operated unless the operator demonstrates to the Executive Officer that the facility holds sufficient RTCs to offset the prorated annual emissions increase for the first compliance year of operation. In addition, this equipment shall not be operated unless the operator demonstrates to the Executive Officer that, at the commencement of each compliance year after the first compliance year of operation, the facility holds sufficient RTCs in an amount equal to the annual emissions increase.

To comply with this condition, the operator shall prior to the first compliance year hold a minimum 49,568 lbs/yr of NO_x RTCs and 13,393 lbs/yr of SO_x RTCs. This condition shall apply to the first year of operation, commencing with the initial operation of the boiler

To comply with this condition, the operator shall, prior to the beginning of all years subsequent to the first compliance year, hold a minimum 40,594 lbs/yr of NO_x RTCs and 12,789 lbs/yr of SO_x RTCs for operation of the boiler. In accordance with Rule 2005(f), unused RTCs may be sold only during the reconciliation period for the fourth quarter of the applicable compliance year inclusive of the first year

For the purpose of this condition, unused RTCs is the difference between (1) the amount of NO_x RTCs required to be held at the beginning of a compliance year as specified in this condition and the amount of NO_x emissions during each applicable compliance year and (2) the amount of SO_x RTCs required to be held at the beginning of a compliance year as specified in this condition and amount of SO_x emissions during each applicable compliance year

[RULE 2005, 5-6-2005]

[Devices subject to this condition : D1629, D1634]

K. Record Keeping/Reporting

K40.3 The operator shall provide to the District a source test report in accordance with the following specifications:

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

Emission data shall be expressed in terms of concentration (ppmv), corrected to 3 percent oxygen, dry basis.

Emission data shall be expressed in terms of mass rate (lbs/hr). In addition, solid PM emissions, if required to be tested, shall also be reported in terms of grains per DSCF.

Emission data shall be expressed in terms of lbs/MM standard cubic feet.



FACILITY PERMIT TO OPERATE TESORO REFINING AND MARKETING CO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

All exhaust flow rate shall be expressed in terms of dry standard cubic feet per minute (DSCFM) and dry actual cubic feet per minute (DACFM).

All moisture concentration shall be expressed in terms of percent corrected to 3 percent oxygen.

Source test results shall also include oxygen levels in the exhaust, the fuel flow rate (CFH) for each fuel used by the equipment, the fuel gas temperature and pressure under which the test conducted.

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

[Devices subject to this condition: D1629, D1634]

K67.14 The operator shall keep records, in a manner approved by the District, for the following parameter(s) or item(s):

Fuel use during the commissioning period

Fuel use after the commissioning period and prior to CEMS certification

Fuel use after CEMS certification

[RULE 2012, 5-6-2005]

[Devices subject to this condition: D1629, D1634]

SCR CATALYST CONDITIONS

D. Monitoring/Testing Requirements

D12.10 The operator shall install and maintain a(n) flow meter to accurately indicate the flow rate of the total hourly throughput recorded of injected ammonia.

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 plus or minus 5 percent. It shall be calibrated once every 12 months.

[RULE 1303(a)(1)-BACT, 5-10-1996] [RULE 2012, 5-6-2005]

[Devices subject to this condition : C1631, C1636]

D12.11 The operator shall install and maintain a(n) temperature reading device to accurately indicate the temperature of the exhaust at the inlet to the SCR reactor.

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 plus or minus 5 percent. It shall be calibrated once every 12 months.

[RULE 1303(a)(1)-BACT, 5-10-1996] [RULE 2012, 5-6-2005]

[Devices subject to this condition : C1631, C1636]



**FACILITY PERMIT TO OPERATE
TESORO REFINING AND MARKETING CO**

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

D12.12 The operator shall install and maintain a(n) pressure gauge to accurately indicate the differential pressure across the SCR catalyst bed 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 plus or minus 5 percent. It shall be calibrated once every 12 months.

[RULE 1303(a)(1)-BACT, 5-10-1996] [RULE 2012, 5-6-2005]
[Devices subject to this condition : C1631, C1636]

D29.10 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	1 hour	Outlet of the SCR

The test shall be conducted no later than 180 days after initial startup and the results submitted to the District within 60 days after the test date. The AQMD shall be notified of the date and time of the test at least 7 days prior to the test.

The test shall be conducted at least quarterly during the first twelve months of operation and at least annually thereafter. The NOx concentration, as determined by the certified CEMS is inoperable or not yet certified, a test shall be conducted to determine the NOx emissions using District Method 100.1 measured over 60 minutes averaging time period.

The test shall be conducted to demonstrate compliance with Rule 1303 concentration limit. If the equipment is not operated in any given quarter, the operator may elect to defer the required testing to a quarter in which the equipment is operated.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]
[Devices subject to this condition : C1631, C1636]

E. Equipment Operation/Construction Requirements

E73.5 Notwithstanding the requirements of Section E conditions, the operator may, at his discretion, choose not to use ammonia injection if any of the following requirement(s) are met:

The inlet exhaust temperature to the SCR reactor is below 546 degrees F

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002; RULE 2005, 5-6-2005]

[Devices subject to this condition : C1631]

E179.3 For the purpose of the following condition number(s), continuously record shall be defined as once every hour and shall be calculated upon average of the continuous monitoring for that hour.

Condition Number D 12-10

Condition Number D 12-11



FACILITY PERMIT TO OPERATE TESORO REFINING AND MARKETING CO

SECTION H: PERMIT TO CONSTRUCT AND TEMPORARY PERMIT TO OPERATE

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

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 2012, 12-5-2003; RULE 2012, 1-7-2005]
[Devices subject to this condition : C1631, C1636]

E179.4 For the purpose of the following condition number(s), continuously record shall be defined as once every month and shall be calculated upon average of the continuous monitoring for that month.

Condition Number D 12-12

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 2012, 12-5-2003; RULE 2012, 1-7-2005]
[Devices subject to this condition : C1631, C1636]

Ammonia Tank

E. Equipment Operation/Construction Requirements

E144.1 The operator shall vent this equipment, during filling, only to the vessel from which it is being filled.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]
[Devices subject to this condition : D1628]

C. Throughput or Operating Parameter Limits

C157.1 The operator shall install and maintain a pressure relief valve set at 50 psig.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(a)(1)-BACT, 12-6-2002]
[Devices subject to this condition : D1628]