



July 26, 2019

Tesoro Refining & Marketing Company LLC
Martinez Refinery
150 Solano Way
Martinez, CA 94553-1487

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Mr. Jeffrey Gove
Director of Compliance and Enforcement
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, California 94105

(W) | s123

**SUBJECT: Title V Semi-Annual Monitoring Report for the Martinez Refinery (Plant ID B2758), and
Amorco Terminal (Plant IDs B2759 and E1200)
Reporting Period: January 1, 2019 to June 30, 2019**

Dear Mr. Gove:

Pursuant to the requirements outlined in Section I, Standard Conditions, Part F of the Tesoro Refining & Marketing Company LLC Title V Permit (issued January 11, 2016), and the Tesoro Logistics Operations LLC Title V Permit (issued August 5, 2013), the attached document includes information for deviations reported to have occurred during the reporting period. The Semi-Annual Monitoring report consists of two parts. The first part summarizes all the Inoperative Monitors reported for the reporting period; the second part summarizes all the Title V deviations reported for the reporting period. This Title V Semi-Annual Monitoring Report contains the signature of Tesoro's responsible official, Mr. Thomas A. Lu, as required by Regulation 2-6-502, and by 40 CFR Part 70.6.

For questions, please contact David Chetkowski of my staff at (925) 335-3451.

Sincerely,


June Christman
Environmental Supervisor


JMC/DMC/kds


Attachment

cc: Mr. Miquel Zepeda, BAAQMD Enforcement Inspector (E-mail)

**Marathon's Tesoro Martinez Refinery and Amorco Terminal
Inoperative Monitors
Reporting Period: 1/1/2019 to 6/30/2019**

Inoperative Monitors as defined by BAAQMD Regulations 1-522 and 1-523
for the reporting period are summarized below:

Date	IMF ID#	Unit	Pollutant / Parameter
1/18/2019	07K56	Main Refinery Flare System	Total Sulfur
2/2/2019	07K74	6 Boiler	NOX
2/10/2019	07K98	Furnace F-9	NOX
3/19/2019	07L71	West Air Flare	BTU
4/28/2019	07M99	3HDS Furnace F-55/F-56	NOX
<p><u>Certification Statement</u></p> <p>I certify under penalty of law that based on the information and belief formed after reasonable inquiry, the statements and information in this document and in all attachments and other materials are true, accurate and complete</p> <p align="center"></p> <hr/> <p>Signature of Responsible Official</p> <p>General Manager, Martinez Refinery</p> <hr/> <p>Title</p> <p align="right">7/30/2019</p> <hr/> <p align="right">Date</p>			

BAAQMD Title V Permit
Semi-Annual Deviation Summary

JANUARY - JUNE 2019

B2758 / B2759 / E1200 - Tesoro Martinez Refinery and Amorc Terminal

Facility Address:

150 Solano Way

City: Martinez State: CA Zip: 94553

Mailing Address:

150 Solano Way

City: Martinez State: CA Zip: 94553

Contact:

June Christman

Title:

Environmental Supervisor

Phone:

925-370-3275

Application Regulation / Permit Condition / Other:

BAAQMD 6-5-301

Date Event Date Event

Started: Stopped:

1/16/2018 11/15/2018 Source (S#): S802 Abatement Device (A#): A30, S901 Emission Point (E#):

Event Description:

Martinez Refinery discovered an error in the calculation for ammonia corrected to 3% O₂. Once discovered, the daily average ammonia (expressed as ppmvd @3% O₂) was recalculated between 1/1/2018 (the initial compliance date) and the date of discovery. Seven (7) indicated excesses were identified and reported to the BAAQMD on 2/13/2019 as RCA Nos. 07L01, 07L02, 07L03, 07L04, 07L05, 07L06, and 07L07. The limit is 10 ppmvd @3% O₂. The indicated excesses were all below 10.4 ppmvd @3% O₂; thus the emission limit was not exceeded since the excesses were within the accuracy of the instrumentation.

Probable Cause:

The process controls narrative for the NH₃ analyzer contained a typographical error in the oxygen correction formula that was missed during document review. The typo was carried forward into the coding that corrects the raw monitored NH₃ values to 3% oxygen.

Corrective Action or Preventative Steps Taken:

The typo in the controls narrative and the coding have been corrected. The coding for other oxygen-corrected compliance analyzers in the refinery was reviewed to verify that the oxygen correction was being correctly calculated.

Application Regulation / Permit Condition / Other:
BAAQMD 8-10-301; 8-10-503

Date Event Started: 1/31/2019 Date Event Stopped: 1/31/2019 Source (S#): B2758 Abatement Device (A#): Emission Point (E#):

Event Description:

The refinery did not maintain a complete record of vessel openings for four (4) vessels in 2018. At the time the annual report was filed, six (6) vessels that were opened in 2018 had incomplete or missing records. Since the report was filed, two (2) complete vessel opening forms were located. For the remaining four (4) vessels, monitoring was performed at the initial opening; however, the daily follow-up readings are either missing or incomplete. Notice of Violation (NOV) #A58863 was issued on 3/25/2019.

Probable Cause:

Some vessel opening forms were misplaced and were not turned in to Environmental on time. Three (3) vessel opening forms were turned in to Environmental without their second pages (incomplete forms), and there was no record of daily readings having been performed for these three (3) vessels. One (1) vessel opening form had some, but not all, of the required daily readings.

Corrective Action or Preventative Steps Taken:

The vessel opening procedure (AQ-32) was rewritten to reduce operator confusion. Completion of the procedure ensures that all required information is recorded at initial opening. The new procedure also contains a step to notify Environmental before the end of shift, and a step to upload a scanned copy of the completed procedure to the Training Department for retention. Environmental technicians receive a copy of the procedure and then perform the required daily readings pursuant to the regulation. A vessel closure procedure (AQ-33) was also created to ensure Operators notify Environmental of vessel closure details.

Application Regulation / Permit Condition / Other:
BAAQMD 8-18-301; 40 CFR 60, Subpart GGGa

Date Event Started: 2/4/2019 Date Event Stopped: 2/4/2019 Source (S#): B2758 Abatement Device (A#): Emission Point (E#):

Event Description:

A third-party audit of the refinery's LDAR program identified one (1) open-ended line (OEL), and one (1) component that was not included in the refinery's LDAR program. Notice of Violation (NOV) #A58864 was issued on 3/25/2019.

Probable Cause:

The OEL was on a sample line. The upstream valve was closed; however, the bull plug was not replaced after sampling was completed.

The untagged component was not readily visible because it was behind a large pipe.

Corrective Action or Preventative Steps Taken:

The OEL was corrected in the field by replacing the bull plug after first verifying that the OEL was not leaking. Operators were reminded to replace plugs immediately after sampling concluded.

The untagged component was tagged that day, and monitoring was performed to verify that the valve was not leaking.

Application Regulation / Permit Condition / Other:
BAAQMD 6-1-302; Condition 11433, Part 2B

Date Event Started: Date Event Stopped:

3/1/2019 3/1/2019 Source (S#): S802 Abatement Device (A#): A30, S901 Emission Point (E#):

Event Description:

Opacity from the FCCU / 7 Boiler stack intermittently exceeded 20% for more than 3 minutes in a one-hour period, and intermittently exceeded 30% for six minutes in an hour. The excess was reported on 2/27/2019 as RCA 07L29.

Probable Cause:

The positioner on the FCCU's Main Air Blower (MAB) Vent Valve failed due to water intrusion from the plant air system. The failed positioner caused the blower to automatically shutdown, which in turn caused the FCCU to automatically shut down. Opacity intermittently occurred when the FCCU tripped offline, and again during startup.

Corrective Action or Preventative Steps Taken:

A PM on the Vent Valve plant air supply system will be created to ensure that the plant air supply to the MAB Vent Valve positioner remains free of water.

Application Regulation / Permit Condition / Other:
BAAQMD 10-14

Date Event Started: Date Event Stopped:

3/25/2019 3/25/2019 Source (S#): S1524 Abatement Device (A#): Emission Point (E#):

Event Description:

The BAAQMD issued NOV A58557 on 3/25/2018 for a failed RATA that was performed on the 50 Unit Flare H2S CEMS in July 2017 (NST-4584). The RATA was not performed correctly and was not valid. The Refinery requests that this NOV be rescinded.

Probable Cause:

The contractor that performed the RATA acknowledged in email that the sampling rate that they used was high and may not have allowed complete absorption of H2S into solution. A copy of the email was provided to BAAQMD in correspondence dated 4/4/2019.

Corrective Action or Preventative Steps Taken:

The follow-up RATA performed in August 2017 was conducted at slower sampling rates after longer purge times, and yielded passing results. No maintenance was performed on the H2S CEMS, and no adjustments were made to the CEMS between the "failing" July RATA and the passing August RATA. A copy of the 50 Unit CEMS logbook was provided to the BAAQMD in correspondence dated 4/4/2019. The fact that the analyzer passed the second RATA without any adjustments or maintenance is clear evidence that the July 2017 RATA was not performed properly and was not valid.

Application Regulation / Permit Condition / Other:
BAAQMD 9-1-3017; 40 CFR 60.104(a)(2)(i)

Date Event Started: Date Event Stopped:

4/6/2019

4/7/2019

Source (S#): S1401

Abatement Device (A#): A1402,
A1525

Emission Point (E#):

Event Description:

A sulfur dioxide (SO₂) emission excess was recorded from the SRU stack on 4/6/2019 during a SCOT unit upset. The excess was reported to BAAQMD on 4/8/2019 as RCA 07L90.

Probable Cause:

While bypassing the SCOT unit flame scanners, the SIS emergency shutdown activated for a false flameout condition caused when the board operator bypassed all of the flame scanners instead of just the one flame scanner that needed to be repaired.

Corrective Action or Preventative Steps Taken:

Having separate bypasses for each flame scanner is new as of 11/2018. The board operator thought all flame scanners needed to be put into bypass. Additional training will be administered to board operators and shift supervision. The DCS group will evaluate whether additional safeguards can be added to prevent someone from inadvertently causing the unit to trip.

Application Regulation / Permit Condition / Other:
40 CFR 60.112b(a)(ii)

Date Event Started: Date Event Stopped:

4/12/2019

4/13/2019

Source (S#): S1463

Abatement Device (A#):

Emission Point (E#):

Event Description:

While investigating a report of odors onsite, operators discovered a vacuum breaker on external floating roof tank A-867 that was leaking vapors.

Probable Cause:

The gasket seal on the mechanical vacuum breaker was displaced, allowing vapors to escape. An attempt to correct the seal was made; however, the vacuum breaker continued to leak vapors due to the pressurized vapor below the plate. The tank had been filled with a crude that has a slightly higher vapor pressure than crude normally stored in the tank. The temperature response of the crude was not accounted for in the MOC process before allowing storage of this crude in a heated crude tank.

Corrective Action or Preventative Steps Taken:

The tank heaters were turned off and the vacuum breaker seal corrected. The Operations Support Engineer section of the Feedstock Authorization Form will be revised to prompt the OSE to verify vapor pressure at the storage temperature. A temperature alarm will be established for the tank.

Application Regulation / Permit Condition / Other:
40 CFR 60.18(c)(1); 40 CFR63.670(c)

Date Event Started: Date Event Stopped:

4/25/2019 4/25/2019 Source (S#): S994, S995 Abatement Device (A#): Emission Point (E#):

Event Description:

Intermittent periods of visible emissions were observed on flare camera footage in excess of five (5) minutes in a two-hour period.

Probable Cause:

Steam rate did not automatically increase quickly enough to eliminate visible emissions from occurring for more than five (5) minutes during a flaring event.

Corrective Action or Preventative Steps Taken:

The steam rate was increased, eliminating the visible emissions from the steam flares. The operators and shift superintendent were instructed to adjust the steam to vent gas ratio during a flaring event, if needed, to eliminate visible emissions.

Application Regulation / Permit Condition / Other:
BAAQMD 8-18-302.2

Date Event Started: Date Event Stopped:

5/3/2019 5/3/2019 Source (S#): S667 Abatement Device (A#): Emission Point (E#):

Event Description:

BAAQMD issued NOV #A58866 on 5/3/2019 for failure to repair a leaking valve (LDAR tag #29061) using "Best Modern Practices." On 4/23/2019, BAAQMD performed an LDAR inspection of TRACT 3 and found twin-seal valve #29061 with a leak rate of 254 ppm. Per BAAQMD requirements, a leak identified during an inspection must be repaired within 24 hours. Maintenance repaired the leak later that same day by encircling the entire leak area with hydrocarbon tape, reducing the leak rate to 6 ppm.

Probable Cause:

Maintenance believed that the application of hydrocarbon tape was an acceptable repair technique because it safely reduced the leak rate below the allowable limit in less than 24 hours; BAAQMD disagreed and issued an NOV.

Corrective Action or Preventative Steps Taken:

Following issuance of the NOV, Maintenance was instructed not use hydrocarbon tape for any future repairs. A drill and tap was safely performed on valve #29061 on 5/9/2019. Final leak rate was 15 ppm.

[It is interesting to note that the application of hydrocarbon tape was more effective at reducing the fugitive leak rate than the drill and tap "Best Modern Practice" (6 ppm vs 15 ppm).]

Application Regulation / Permit Condition / Other:

Condition #17322, Part 5

Date Event Date Event
Started: Stopped:

5/17/2019 6/3/2019 Source (S#): S904 Abatement Device (A#): A904 Emission Point (E#):

Event Description:

No. 6 Boiler failed a stack test for ammonia slip (NST-5461). Measured ammonia emission rate was greater than 20 ppmvd @ 3% O2. The stack test was performed on May 17, 2019. The boiler passed a retest that was performed by BEST Environmental on June 3, 2019.

Probable Cause:

Ammonia injection rate to the SCR was too high and resulted in ammonia slip emissions in excess of allowable.

Corrective Action or Preventative Steps Taken:

Operations were instructed to target a higher NOX rate from the boiler, and ammonia injection was reduced. The boiler passed a retest that was performed on June 3, 2019.

Application Regulation / Permit Condition / Other:

Condition #8077, Part B6B

Date Event Date Event
Started: Stopped:

6/17/2019 6/17/2019 Source (S#): S850 Abatement Device (A#): Emission Point (E#):

Event Description:

During an inspection on 6/17/2019, it was discovered that the 3HDS feed flowmeter had indicated excesses of the unit feed rate limit of 70,000 bbl/stream day on the following days:

- 6/21/2018 70,002 bbls
- 9/5/2018 70,001 bbls
- 9/18/2018 70,001 bbls
- 4/19/2019 70,001 bbls

Probable Cause:

The alarm values for ensuring that the unit does not exceed it's midnight-to-midnight average feed rate limit will be adjusted downward so that operators are able to take action and adjust the feed rate, if needed, to meet the midnight-to-midnight average feed rate limit.

Corrective Action or Preventative Steps Taken:

The alarm value will be adjusted. The refinery believes that these indicated excesses are well within the accuracy of the instrumentation and are therefore not a violation of Condition 8077. The indicated excess was reported on 6/20/2019.

Application Regulation / Permit Condition / Other:

BAAQMD 9-1-307

Date Event Date Event

Started: Stopped:

6/24/2019 6/24/2019 Source (S#): S1401 Abatement Device (A#): A1402 Emission Point (E#):Event Description:

The SCOT plant tripped offline twice, resulting in two periods of monitored SO2 excesses. Each time, operations immediately began to troubleshoot and restart the SCOT. The excess emissions were reported to BAAQMD on 6/25/2019 as RCA 07M61.

Probable Cause:

Steam-driven blower T203 tripped offline twice, causing a SCOT unit upset each time. The investigation into the cause of the blower trips is ongoing at this time. Monitored data do not point to a cause, and component inspections are being performed as part of the investigation.

Corrective Action or Preventative Steps Taken:

The SCOT unit can be operated using either a steam-driven blower or an electrically-driven blower. The electrically-driven blower has been put into service, and will remain in service, until the cause of the steam-driven blower has been determined and corrective actions identified.

Application Regulation / Permit Condition / Other:

Condition 16685, Part 1

Date Event Date Event

Started: Stopped:

6/30/2019 7/1/2019 Source (S#): S974 Abatement Device (A#): A31 Emission Point (E#):Event Description:

Monitored data indicate that Furnace F56 exceeded its daily average heat input limit of 55 MMBTU/hr on 6/30/2019. Operators did not receive an alarm during furnace startup. This prompted a lookback of data. The daily average heat input was also greater than 55 MMBtu/hr on 11/5/2018 and 11/6/2018. The monitored excesses were reported to BAAQMD on 7/2/2018 as RCA 07M68.

Probable Cause:


An alarm was not created for this operating limit when the limit was added to the Master Alarm Process Variable (MAPV) database. All MAPV limits must have an alarm.

Corrective Action or Preventative Steps Taken:

An alarm will be created.

Certification Statement:

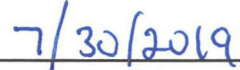
I certify under penalty of law that based on the information and belief formed after reasonable inquiry, the statements and information in this document and in all attachments and other materials are true, accurate, and complete.



Signature of Responsible Official

Thomas A. Lu
Print Name

General Manager,
Martinez Refinery
Title



Date