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BAY AREA AIR QUALITY
MANAGEMENT DISTRICT



TESORO
Tesoro Refining and Marketing Company
Golden Eagle Refinery
150 Solano Way
Martinez, CA 94553-1487
925 228 1120
925 377 3179 Fax

January 25, 2012

USPS CERTIFIED MAIL: 7000 1530 0000 4727 9096

Mr. Brian Bateman, Director of Enforcement
Bay Area Air Quality Management District
939 Ellis Street
San Francisco, California 94109

**Subject : Tesoro Golden Eagle Refinery Title V Semi-annual Monitoring Report
July to December 2011 (Plant #B2758 & #B2759)**

Dear Mr. Bateman:

Pursuant to the requirements outlined in Section 1, Standard Conditions, Part F. of the Tesoro Refining and Marketing Company Title V-Permit, issued on June 28, 2011, the attached document includes information for the period of July 1 through December 31, 2011. The Semi-annual Monitoring report consists of two parts. The first part summarizes all the Title V deviations reported during this period; the second part consists of all the Inoperative Monitors reported for the same period. This Title V Semi Annual Monitoring Report contains the signature of Tesoro's responsible official, Mr. Stephen W. Hansen, as required by Regulation 2-6-502, and by 40 CFR Part 70.6.

For questions, please contact Ms. Sharon Lim at (925) 335-3467.

Sincerely,

Matthew V. Marusich
Environmental Manager

^{SYL}
MVM/CHA/sap
Attachment

CC: Mr. Ray Salalila, BAAQMD Enforcement Inspector (E-mail)
Mr. Simon Winer, BAAQMD Enforcement Inspector (E-mail)

BAAQMD Title V Permit
Semi-Annual Monitoring Report

July-11 - December-11

B2758 & B2759 - Tesoro Golden Eagle Refinery and Amoco Terminal

Facility Address:

150 Solano Way

City: Martinez

State: CA

Zip Code: 94553

Mailing Address:

150 Solano Way

City: Martinez

State: CA

Zip Code: 94553

Contact:
Sharon Lim

Title:
Air Compliance Supt.

Phone:
925 - 335 - 3467

Applicable Regulation / Permit Condition / Other:

Date Event
Started:

Date Event
Stopped:

08/27/2011

08/27/2011

Source (S#):

Abatement Device (A#):

Emission Point (P#):

Event Description: NOV #A52030 was received on October 8, 2011 for Flaring Causal Report Deficiencies on the loss of the Hydrocracker Stage 2 Pump, which occurred on June 27, 2011.

Probable Cause:

District Inspector wanted a definitive cause and definitive preventative measure(s).

Corrective Action or Preventive Steps Taken:

Be specific on causes and prevention measures.

Applicable Regulation / Permit Condition / Other:

BAAQMD 8-5-321(1), BAAQMD 8-5-322(5)

Date Event
Started:

Date Event
Stopped:

07/14/2011

07/14/2011

Source (S#): S650

Abatement Device (A#):

Emission Point (P#):

Event Description: Received a Notice of Violation (No. A51643) for holes in the primary seal and seal gap issues with Tank 650, for 4/9/2010 and 10/10/2010 inspections.

Probable Cause:

Tank 650 was originally permitted for exempt service. In October 2010, HMT was taking the vessel out of service to repair the seal on the tank. Pyrophoric materials were in the tank, which ignited and caused the diesel layer to burn. After the fire, samples showed the diesel layer contained lighter materials with a reported vapor pressure of ~5 psia. Therefore, the gaps became Title V violations with non-exempt material in the tank.

Corrective Action or Preventive Steps Taken:

Correct HMWS for Tank 650 to include pyrophoric considerations and the hydrocarbon layer. Modify Rules and Standing Instructions (R&SI) 8-6 "Tank Requirements" and 8-6-1 "Tank Seal Replacement." Add tanks to the list of pyrophoric sources. Train personnel on changes.

Applicable Regulation / Permit Condition / Other:

BAAQMD SIP 6-301

Date Event Started: Date Event Stopped:

07/14/2011

07/14/2011

Source (S#): S1401

Abatement Device (A#):

Emission Point (P#):

Event Description: Received a Notice of Violation (No. A51648) for visible emissions at the Sulfur Recovery Unit stack on 6/21/2011 during a SRU upset.

Probable Cause:

DCS was working on Fieldbus Modules (FBM) in the DEA plant when control variable setpoints in the Ammonia and Acid Plants changed without Operator input. One controller that changed setpoint was the ARU H2S Stripper V-201 O/H pressure controller PIC-203. This 100% open valve caused the Sulfur Plant to be overloaded with H2S and the unit became upset. The sulfur stack O2 went low and the SO2 went high.

Corrective Action or Preventive Steps Taken:

Operators put controls in manual. This helped restore proper conditions immediately after the upset. The FBM replacement was completed.

Applicable Regulation / Permit Condition / Other:

Title V-V1 (4357)(A)

Date Event Started: Date Event Stopped:

07/31/2011

07/31/2011

Source (S#): S908

Abatement Device (A#): A808

Emission Point (P#):

Event Description: Reported a NOx excess at F-8 stack in #3 Crude Unit under Reportable Compliance Activity Excess ID # 06A94.

Probable Cause:

Operations was switching the aqueous ammonia supply tank from the permanent tank (physically located near the FCCU) to a temporary storage tank while the permanent tank and associated piping were being completely cleaned out. During the switching operation, the ammonia injection pumps lost feed, and there was a resulting loss of ammonia going to the stack SCR, causing the NOx excess.

Corrective Action or Preventive Steps Taken:

The pump lost suction during the switching operation at 1300, and the ammonia flow dropped from the normal 15 to 20 lb/hr down to <1 lb/hr. The corrected NOx in the stack went from the typical 2-3 ppm up to 30 ppm in that hour, above the 10 ppm/3 hour average limit. Operators worked to get the pump restarted and ammonia flow resumed to the SCR grid, returning the stack NOx to compliance.

Applicable Regulation / Permit Condition / Other:

Title V-Vt(8077)(B7)(A)

Date Event Started: Date Event Stopped:

08/02/2011

01/10/2012

Source (S#): S971, S972

Abatement Device (A#):

Emission Point (P#):

Event Description: F-53 and F-54 show an exceedance for carbon monoxide (CO). The new Title V permit has an erroneous limit of 50 ppm CO, which we are appealing. Actual limit is 400 ppm.

Probable Cause:

F-54 air louver positioner is broken so the air flow to the fire box cannot be changed. With the existing amount of air flow and reduced rates, the firebox temperature has dropped causing increased CO.

Corrective Action or Preventive Steps Taken:

The air louver positioner will be repaired during the next outage in January/February 2012. Note: We are appealing the CO limit.

Applicable Regulation / Permit Condition / Other:

BAAQMD 8-5-304(d)

Date Event Started:

Date Event Stopped:

09/09/2011

09/12/2011

Source (S#): S708

Abatement Device (A#):

Emission Point (P#):

Event Description: Tank 708 roof was discovered below float when gaugers manually taped the roof on 9/12/2011 at ~11 AM. The Varec/level indicator malfunctioned and was showing a level above float.

Probable Cause:

The Varec/level indicator malfunctioned and was showing a level above float.

Corrective Action or Preventive Steps Taken:

Tank was returned to float by adding crude to the tank. Level indicator was repaired and validated.

Applicable Regulation / Permit Condition / Other:

Title V-VI(9077)(B7)(A)(TABLE 1)(1)

Date Event Started:

Date Event Stopped:

09/11/2011

09/11/2011

Source (S#): S1470, S908

Abatement Device (A#):

Emission Point (P#):

Event Description: NOX Excess at No. 3 Crude F-8/F-71 stack. Emissions were above 10 ppm for the three hour average.

Probable Cause:

Suspect ammonia injection pump and tank issues which affected NOX abatement for a brief period of time (< 1 hour).

Corrective Action or Preventive Steps Taken:

We currently have a regular ammonia injection pump plus a spare. Operations has ordered a third pump to assure that a spare is always available. An incident investigation is in progress to determine root causes and additional improvements to ammonia injection system.

Applicable Regulation / Permit Condition / Other:

Title V-VI(16885)(1)(TABLE 1)(2)

Date Event Started:

Date Event Stopped:

09/18/2011

09/22/2011

Source (S#): S908

Abatement Device (A#):

Emission Point (P#):

Event Description: Exceedance of firing rate duty limit (Condition 16885) - 5280 MMBTU/day. After we had the indicated excess on 11/13/11, we reviewed data for the prior year and discovered the indicated excesses.

Probable Cause:

No alarm on maximum firing rate

Corrective Action or Preventive Steps Taken:

Operators have been trained on firing rate limit. Operations will add an alarm for the firing rate to prevent another exceedance. The NOX spreadsheet improvement to compare the actual firing with permitted firing automatically will also eliminate late reporting.

Applicable Regulation / Permit Condition / Other:

Date Event Started: 09/30/2011 Date Event Stopped: 10/07/2011 Source (S#): Abatement Device (A#): A39 Emission Point (P#):

Event Description: Thermal Oxidizer at API showed strange results.

Probable Cause:

CEM malfunctioned due to bad amplifier PCB in analyzer.

Corrective Action or Preventive Steps Taken:

Gas stream was diverted to the #1 Gas Plant. Replaced parts and recalibrated analyzer. Thermal oxidizer was returned to service.

Applicable Regulation / Permit Condition / Other:

40 CFR 60 Appendix F(5)

Date Event Started: 09/30/2011 Date Event Stopped: 10/27/2011 Source (S#): None Abatement Device (A#): Emission Point (P#):

Event Description: Cylinder Gas Audit (CGA) for the H2S analyzer on the 40# fuel gas system was not performed for third quarter 2011. This was identified on October 20.

Probable Cause:

Matrix for source tests was not updated with NSPS requirements

Corrective Action or Preventive Steps Taken:

Environmental updated the source test matrix. CGA was completed/passed on 10/27/2011. Two source tests will be done during the fourth quarter.

Applicable Regulation / Permit Condition / Other:

40 CFR 60.13(a)(2)

Date Event Started: 10/07/2011 Date Event Stopped: 10/12/2011 Source (S#): S909, S912 Abatement Device (A#): Emission Point (P#):

Event Description: H2S analyzer was not analyzing the 40# fuel gas to Furnaces F-9 and F-12, S909 and S912 respectively. Consent Decree requires continuous H2S monitoring for Fuel Gas for NSPS heaters (F-8, F-9, F-12).

Probable Cause:

We switched from 40# fuel gas to natural gas at Furnace F-8. The H2S analyzer was analyzing the natural gas from the F-8 Fuel Gas Knockout pot and not the 40# fuel gas that was still going to F-9 and F-12.

Corrective Action or Preventive Steps Taken:

Dragers showed we were below 160 ppm H2S. Operations switched to 100# Fuel Gas, which has a separate H2S analyzer, for use at F-9 and F-12 on October 12. Operations re-installed pipe from the F-8/F-12 fuel knockout pot to the analyzer and returned 40# fuel gas to the F-9 and F-12 on October 13, 2011. Environmental Guidance documents were updated to show the H2S continuous monitoring requirement for the 40# fuel gas system. Operations were notified.

Applicable Regulation / Permit Condition / Other:
40 CFR 60 Appendix B PS2(4)(3)

Date Event Started: 10/12/2011
Date Event Stopped: 11/08/2011

Source (S#):

Abatement Device (A#):

Emission Point (P#): A1525

Event Description: SO2 CEMS on SRU stack failed source test conducted on 10/12/2011. Tesoro SO2 CEMS is reading higher than actual.

Probable Cause:

Lamp degradation.

Corrective Action or Preventive Steps Taken:

Lamp was replaced and analyzer was calibrated with three calibration gases. The analyzer passed RATA, which was done by a third party source tester, on November 8, 2011.

Applicable Regulation / Permit Condition / Other:
40 CFR 60.104(a)(2)(i), BAAQMD 9-1-307

Date Event Started: 10/26/2011
Date Event Stopped: 10/29/2011

Source (S#):

Abatement Device (A#):

Emission Point (P#): A1525

Event Description: Partial power outage caused flaring and unit shutdowns. We had pluming and > 500 ppm SO2 at the SRU stack. RCA #06C02. NOV AS2033 was issued on 11/17/2011.

Probable Cause:

At 4:45 PM on October 26, 2010, the refinery experienced a partial power outage and a severe voltage dip on the 12.47 kV system. These events caused a number of units to shut down, with some going to the refinery flares. The initiating event occurred at Switching Station #4 (SS#4). Electricians found that breaker 1432 had tripped on a B phase fault, and that the B phase surge limiter (a.k.a. "lightning arresstor" or "surge arresstor") was destroyed.

Corrective Action or Preventive Steps Taken:

Replace the surge limiter on breaker 1432 B Phase along with other two surge limiters. Review similar surge limiter installations and develop plan for replacement. Initiate TSWR to review whether "Fail Closed" is the proper design for Rich DEA valve 014-LV-0150B.

Applicable Regulation / Permit Condition / Other:
BAAQMD 9-1-307, 40 CFR 60.104(a)(2)(i)

Date Event Started: 10/29/2011
Date Event Stopped: 10/29/2011

Source (S#):

Abatement Device (A#):

Emission Point (P#): A1525

Event Description: SRU stack exceeded 250 ppm SO2 limit. We encountered startup issues from the power outage on 10/26/2011. RCA # 06C05.

Probable Cause:

Post power outage startup issues. MDEA at tail gas unit was contaminated.

Corrective Action or Preventive Steps Taken:

MDEA was replaced, which reduced the hydrogen sulfide to the incinerator and subsequently decreased the SO2 from the SRU stack.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-1-307, 40 CFR 80.104(a)(2)(i)

Date Event Started: Date Event Stopped:

10/31/2011 11/02/2011

Source (S#):

Abatement Device (A#):

Emission Point (P#): A1525

Event Description: SRU stack exceeded 250 ppm SO2 limit. RC # 06C13

Probable Cause:

Power outage caused unit upset. MDEA was contaminated.

Corrective Action or Preventive Steps Taken:

MDEA was replaced, which reduced the hydrogen sulfide to the incinerator and decreased SO2 from the SRU stack.

Applicable Regulation / Permit Condition / Other:

Title V-VI(16685)(1)(TABLE 1)(2)

Date Event Started: Date Event Stopped:

11/13/2011 11/14/2011

Source (S#):

Abatement Device (A#):

Emission Point (P#):

Event Description: S908 (F8) Daily firing rate limit exceedance (Condition 16685, Part 1) (November 13, 2011)

Probable Cause:

No alarm on maximum firing rate.

Corrective Action or Preventive Steps Taken:

Operators have been trained on firing rate limit. Operations will add an alarm for the firing rate to prevent another exceedance.

Applicable Regulation / Permit Condition / Other:

Title V-VI(23129)(12)(b)

Date Event Started: Date Event Stopped:

11/30/2011 11/30/2011

Source (S#): S1512

Abatement Device (A#):

Emission Point (P#):

Event Description: Indicated CO excess > 50 ppm/3 hour average (max=50.1 ppm/3 hour average) at DCU furnace F-79 during heater tube spalling.

Probable Cause:

CO can occur at colder fire box temperatures. We were at reduced firing rates due to spalling of the heater tubes.

Corrective Action or Preventive Steps Taken:

Temperature of fire box was increased by lowering combustion air rate and CO returned to normal.

Applicable Regulation / Permit Condition / Other:
40 CFR 60.103(a), Title V-VI(11433)(9)

Date Event Started:	Date Event Stopped:	Source (S#):	Abatement Device (A#):	Emission Point (P#):
12/30/2011	12/30/2011	<u>S901</u>		

Event Description: Indicated CO CEM excess due to inoperative monitor.

Probable Cause:

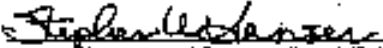
CO analyzer was malfunctioning from 08:08 to repair time of 09:10, causing indicated CO excess.


Corrective Action or Preventive Steps Taken:

Analyzer was repaired by Instrument Shop and emissions returned to normal ranges.

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.

	Stephen W. Hansen	Vice President, Golden Eagle Refinery	1/26/12
Signature of Responsible Official	Print Name	Title	Date

Syl 
CLS

**Tesoro Golden Eagle Refinery
Inoperative Monitors
Period 7/1/11 to 12/31/11**

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

Date	IMF ID#	Unit	Pollutant
7/4/2011	06A59	48" Flare	H2S
7/7/2011	06A65	6 BH	CO, NOX, O2, SO2
7/8/2011	06A61	48" Flare	H2S
7/13/2011	06A69	DCU Flare Header	H2S
7/22/2011	06A78	HCR F34/F35	NOX, O2
7/29/2011	06A95	FCCU	CO, NOX, SO2
7/29/2011	06A98	DCU Flare Header	H2S
8/8/2011	06B09	6 BH	CO, NOX, O2, SO2
8/16/2011	06B21	DCU Flare Header	H2S
8/24/2011	06B27	FCCU	SO2
9/11/2011	06B48	FCCU	NOX
9/13/2011	06B49	DCU	NOX
9/20/2011	06B99	5 GP	H2S
9/24/2011	06B81	6 BH	CO, NOX, O2, SO2
9/28/2011	06B62	DCU Flare Header	H2S
9/29/2011	06B71	API T.O.	HC
10/2/2011	06B72	7 BH/FCCU	SO2
10/3/2011	06B75	3 CRU	H2S, BTU
10/3/2011	06B73	24" Flare	H2S
10/14/2011	06B86	48" Flare	H2S
10/15/2011	06B87	DCU F78	NOX, O2
10/12/2011	06B97	SRU	SO2
10/25/2011	06C03	5 GP	H2S
11/3/2011	06C17	DCU Flare Header	H2S
11/3/2011	06C18	24" Flare	H2S
11/5/2011	06C22	1 HDS F-17	Flow
11/7/2011	06C24	FCCU/7 BH	SO2
11/16/2011	06C34	48" Flare	H2S
11/29/2011	06C54	3 CRU	H2S
12/9/2011	06C71	24" & 48" Flare header	H2S
12/30/2011	06C89	SRU	SO2

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

Vice President, Refining, California and SW Region

Title



January 25, 2012

Date