

BAAQMD Title V Permit  
Semi-Annual Monitoring Report

January-12 - June-12

B2758 & B2759 - Tesoro Golden Eagle Refinery and Amibco Terminal

<u>Facility Address:</u>			<u>Mailing Address:</u>		
City: Martinez	150 Solano Way State: CA	Zip Code: 94553	City: Martinez	150 Solano Way State: CA	Zip Code: 94553
Contact: Sharon Lim	Title: Air Compliance Supt.	Phone: 925 - 335 - 3467			

Applicable Regulation / Permit Condition / Other:  
BAAQMD 8-2-301

<u>Date Event Started:</u>	<u>Date Event Stopped:</u>	<u>Source (S#):</u>	<u>Abatement Device (A#):</u>	<u>Emission Point (P#):</u>
09/13/2010	09/29/2010	S975		

Event Description: On May 18, 2012, Tesoro received a Notice of Violation (No. A52048) for alleged exceedance of 15 lbs/day under Regulation 8-2-301

Probable Cause:

pH excursions caused by a leaking back pressure valve on the acid supply piping.

Corrective Action or Preventive Steps Taken:

Established new procedure for operators on cooling tower performance.

Applicable Regulation / Permit Condition / Other:  
BAAQMD 1-522(B)

<u>Date Event Started:</u>	<u>Date Event Stopped:</u>	<u>Source (S#):</u>	<u>Abatement Device (A#):</u>	<u>Emission Point (P#):</u>
01/13/2012	01/13/2012	S937, None		

Event Description: On 1/13/2012, Tesoro received the results of a source test done on 100# Fuel Gas System (Conducted on 12/22/2011) that indicated relative accuracy 2 ppm greater than 10% of emission standard (=16 ppm). Operations were changing during the time of the RATA, causing fluctuating H2S readings. Thiols in the refinery fuel gas likely contributed to the error in the RATA since thiols are known interferences for EPA Method 11.

Probable Cause:

100# fuel gas was receiving additional gases and was fluctuating in operations. This contributed to the variability of the H2S in refinery fuel gas.

Corrective Action or Preventive Steps Taken:

After receiving the results of the 12/22 test, Instrument Technicians checked the analyzer with calibration gases at 0, 50 and 150 ppm H2S. The analyzer read 2, 55, and 155 ppm, which exceeds the 10% of the emission standard. A new RATA was scheduled on January 31, 2012, which Tesoro passed.

## Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301Date Event  
Started:Date Event  
Stopped:01/14/201201/14/2012Source (S#): B2758

Abatement Device (A#):

Emission Point (P#):

Event Description: Reported an H2S emission excess at Waterfront GLM under Reportable Compliance Activity Excess ID #06D12. NOV A52049 issued on June 21, 2012.

Probable Cause:

Turnaround activity is suspect.

Corrective Action or Preventive Steps Taken:

Increased surveillance during turnaround activity.

## Applicable Regulation / Permit Condition / Other:

BAAQMD 9-1-307Date Event  
Started:Date Event  
Stopped:01/17/201201/18/2012Source (S#): S1401

Abatement Device (A#):

Emission Point (P#): A1525

Event Description: Reported an indicated SO2 emission excess at the Sulfur Recovery Unit stack under RCA ID 06D17. NOV A52045 issued on April 25, 2012.

Probable Cause:

Changes in feed rate and feed composition to the SRU.

Corrective Action or Preventive Steps Taken:

Engineering will create a new alarm for low molecular weight at 5 Gas to give Operations more time to respond to compositional changes.

## Applicable Regulation / Permit Condition / Other:

BAAQMD 9-1-307Date Event  
Started:Date Event  
Stopped:01/20/201201/20/2012Source (S#): S1401

Abatement Device (A#):

Emission Point (P#): A1525

Event Description: Reported SO2 excess on January 20, 2012 at SRU (253 ppm for one hour average, 2 to 3 AM) under Reportable Compliance Activity # 06D23. The estimated excess SO2 was ~10 lbs.

Probable Cause:

SRU went off-ratio at about midnight on January 20, 2012. The SCOT stripper pressure increased and the overhead temperature dropped, leading to inefficient stripping and high emission between 2am and 3am at the SRU stack.

Corrective Action or Preventive Steps Taken:

Operations adjusted oxygen to get the ratio corrected.

## Applicable Regulation / Permit Condition / Other:

BAAQMD 8-2-301

Date Event Started:

Date Event Stopped:

02/07/201202/07/2012Source (S#): S1005

Abatement Device (A#):

Emission Point (P#):

Event Description: Source Test results for CO2 vents at #1 Hydrogen Plant were received on February 7, 2012. Tests showed an unknown compound, causing results to exceed Reg 8-2 (15 lb/day and 300 ppm) limits for Vent #2.

Probable Cause:

Suspect sample contamination. Engineering verified that the suspect compound is not normally found in H2 plants.

Corrective Action or Preventive Steps Taken:

Schedule another source test for April since H2 Plant is running at reduced rates through March so there is no venting out of Vent #2.

## Applicable Regulation / Permit Condition / Other:

BAAQMD 1-522(S), BAAQMD 2-6-307

Date Event Started:

Date Event Stopped:

02/07/201202/07/2012Source (S#): S1401

Abatement Device (A#):

Emission Point (P#): A1525

Event Description: On February 7, 2012, Tesoro received a Notice To Comply (NTC) #A40243 for incomplete reporting for the 10/12/2011 Title V 10 day deviation report for the SRU. Per the NTC, in order for the report to be complete, it must include source number (S#), abatement (A#), and emission point (P#), etc and more detailed descriptions. There is no need to resubmit the Title V 10 day deviation report for 10/12/2011. Tesoro confirmed with the District inspector that the S# is what is required since not all sources have abatement devices or emission points.

Probable Cause:

Lack of S# made it difficult for BAAQMD to log information into their database.

Corrective Action or Preventive Steps Taken:

The Air Compliance Superintendent, or designee, will include S# and more detailed descriptions in all future Title V 10 day deviation reports. When needed, A# and P# will also be included.

## Applicable Regulation / Permit Condition / Other:

BAAQMD 2-6-307

Date Event Started:

Date Event Stopped:

02/09/201202/09/2012Source (S#): S944

Abatement Device (A#):

Emission Point (P#):

Event Description: Tesoro received NOV #A52035 for failure to submit a 10 day deviation report associated with NTC #A40241 on 12/9/11. NTC #A40421 was for alleged deficiencies in the flare reports from July 1, 2010 to June 30, 2011 and required re-writing flare causal reports.

Probable Cause:

District changed the policy without notifying Title V facilities.

Corrective Action or Preventive Steps Taken:

Facility will report NTC's as Title V deviations.

## Applicable Regulation / Permit Condition / Other:

BAAQMD 8-28-401

Date Event Started:

Date Event Stopped:

03/07/201203/07/2012Source (S#): S1007

Abatement Device (A#):

Emission Point (P#):

Event Description: Power outage on March 7, 2012 likely caused 4 PSV's at the Hydrocracker Stage 2 (S1007) Splitter to lift to atmosphere. When we became aware of the PSV lifts on March 14, 2012, we immediately reported the incident and performed the fugitives monitoring for the PSV's. We also updated the deviation on March 22 to include the alleged failure to perform inspection within five working days as required by 8-28-402.2. RCA# 06E24

Probable Cause:

Failed to run PSV lift report during day shift on March 8. Partial power outage allowed some equipment to continue to run. The splitter reboiler furnace circulation pumps and reboiler furnace were not affected by the power outage and continued to run. Flow from the Stabilizer to the splitter continued, and it is likely that lighter ends left in this oil due to the loss of reboiler heat into the stabilizer tower, along with continued operation of the splitter tower without its overhead condensers running led to a rise in splitter pressure, which exceeded the relief valve set pressures.

Corrective Action or Preventive Steps Taken:

The operators tripped the fuel gas to the splitter reboiler furnace when they recognized the splitter tower pressure was increasing. Trained shift superintendents to run the PSV lift report once per shift. Please note that the one PSV that was leaking was repaired by March 16, 2012, which was within the Reg 8-18-305 15 day window for PSV repairs and a discovery date of March 7, 2012.

## Applicable Regulation / Permit Condition / Other:

BAAQMD 9-1-307

Date Event Started:

Date Event Stopped:

03/07/201203/08/2012Source (S#) S1401Abatement Device (A#): A1402

Emission Point (P#):

Event Description: SO2 Excess at SRU (S1401) upon startup following power outage on 3/7/2012. Mechanical breakdown in SCOT unit. RCA 06E02

Probable Cause:

Valve 137 failed to close, increasing heat up time in the blower expansion joint. This caused the expansion joint to fail due to high temperature. Operations was able to switch to the spare steam driven blower, but then encountered a faulty thermocouple, T203, which would not allow them to proceed if the temperature was too low. Other temperature indications showed sufficient temperature.

Corrective Action or Preventive Steps Taken:

Operations switched to the spare steam driver when the expansion joint leaked. Maintenance cleaned thermocouple T203. When the temperature read correctly, SCOT unit proceeded to startup. Once SCOT was back in service, SO2 readings dropped to normal.

## Applicable Regulation / Permit Condition / Other:

BAAQMD 9-1-308

Date Event Started:      Date Event Stopped:

03/07/201203/08/2012Source (S#): S1411

Abatement Device (A#):

Emission Point (P#):

Event Description: Reported SO<sub>2</sub> excess at Sulfuric Acid Plant (S1411) during startup following power outage on 3/7/2012. Mechanical breakdown suspected. RCA 08E04

Probable Cause:

DCS logic and interlock system failed to shutdown the main blower which ran undetected for 40 minutes, thereby putting cold air into the converter beds. This caused the converter temperatures to drop and the subsequent SO<sub>2</sub> excess.

Corrective Action or Preventive Steps Taken:

DCS folks verified logic and tested shutdown devices during the April 2012 shutdown of the Acid Plant. The spring was weak on the shutdown throttle for the steam chest. A new spring was installed and Tesoro verified the shutdown device would work as designed.

## Applicable Regulation / Permit Condition / Other:

Date Event Started:      Date Event Stopped:

03/08/201203/08/2012Source (S#): S901

Abatement Device (A#):

Emission Point (P#):

Event Description: Indicated CO excess greater than 500 ppm at #7 Boiler (S901) was reported due to FCCU startup activities including Peabody Startup Burner (S902). RCA #06E18.

Probable Cause:

Peabody Startup burner likely produced CO during warm up. CO emissions decreased as Peabody Startup Burner temperature increased. #7 Boiler was not receiving CO gas from FCCU since feed was not in at the time.

Corrective Action or Preventive Steps Taken:

Operations will continue to startup as quickly and safely as possible. Please note that NSPS Subpart J for CO does not apply during startup per Title V permit condition 11433 (11) and the consent decree.

## Applicable Regulation / Permit Condition / Other:

Title V-VI(23562)(1)

Date Event Started:      Date Event Stopped:

03/09/201203/09/2012Source (S#): S908

Abatement Device (A#):

Emission Point (P#):

Event Description: 40# Fuel Gas exceeded H<sub>2</sub>S limit of 160 ppm for three hour average. RCA 06E10.

Probable Cause:

Upon preparation for the 50 Unit start-up, flow was increased to the Tract 1 tanks, which includes sloop tanks and desalter water tanks, and H<sub>2</sub>S-laden gases were likely forced to the vapor recovery system and then to the 40# fuel gas system creating the excess emissions.

Corrective Action or Preventive Steps Taken:

Operations quickly added natural gas to bring the H<sub>2</sub>S concentration below the limit. Title V Permit Condition 23562 allows exceptions during periods of startup.

## Applicable Regulation / Permit Condition / Other:

Title V-VI(11433)(Z)

Date Event Started:      Date Event Stopped:

03/09/2012      03/16/2012      Source (S#): S902, S802      Abatement Device (A#):      Emission Point (P#):

Event Description: Reported an indicated excess of greater than 40 ppm NOX for the seven day average at the FCCU (S802) during startup activities. The source of the NOX is from the Peabody Startup Heater (S902). RCA # 06E19.

Probable Cause:

The FCCU was being returned to service following an extended turnaround for maintenance activities. Part of the startup includes heating up the system with the Startup Heater. The flue gas from the Peabody heater flows through the FCCU to the 7 Boiler Stack. CEMS was capturing NOX from S902, which does not have NOX emission limits.

Corrective Action or Preventive Steps Taken:

Performed heat up as quickly as possible.

## Applicable Regulation / Permit Condition / Other:

Title V-VII(11433)(9)

Date Event Started:      Date Event Stopped:

03/10/2012      03/10/2012      Source (S#): S902      Abatement Device (A#): S901      Emission Point (P#):

Event Description: Indicated CO excess greater than 500 ppm for a one hour period at 7 Boiler (S901) was reported due to FCCU shutdown activities including Peabody Startup Heater (S902). RCA 06E20.

Probable Cause:

Peabody Startup heater likely produced CO during the shutdown of the Peabody. The startup was aborted due to a leak at the #7 boiler.

Corrective Action or Preventive Steps Taken:

NSPS Subpart J for CO does not apply during startup or shutdowns. Operations will continue to startup as quickly and safely as possible.

## Applicable Regulation / Permit Condition / Other:

Title V-VI(11433)(9)

Date Event Started:      Date Event Stopped:

03/13/2012      03/14/2012      Source (S#): S802      Abatement Device (A#): S901      Emission Point (P#):

Event Description: Reported a CO emission excess at 7 Boiler (S901) during Fluid Cat Cracker Unit (FCCU) startup activities under RCA # 06E25.

Probable Cause:

The (FCCU) was being returned to service following an extended turnaround for maintenance activities. During the startup from cold condition, torch oil was used to heat up the reactor and regenerator prior to introducing oil feed. No. 7 Boiler was combusting fuel gas during this period. When oil feed was introduced into the reactor, the FCCU began generating flue gas from the regenerator, which was then included as combustion fuel to No. 7 Boiler.

Corrective Action or Preventive Steps Taken:

Torch oil is part of cold startups. Operations will continue to startup as quickly and safely as possible. Please note that NSPS Subpart J for CO does not apply during startup.

		Applicable Regulation / Permit Condition / Other: <u>Title V-VI(19199)(H4)</u>		
Date Event Started:	Date Event Stopped:	Source (S#):	Abatement Device (A#):	Emission Point (P#):
<u>03/16/2012</u>	<u>03/16/2012</u>	<u>S1106</u>	<u>A1106</u>	
Event Description: Reported NOX exceedance (>10 ppm for 3 hour average) under RCA #06E34.				
<u>Probable Cause:</u> Likely caused by instrumentation problems with ID fan louvers and ammonia injection flow.				
<u>Corrective Action or Preventive Steps Taken:</u> Repair louver controls and ammonia injection flow indicator. Repair louver mechanical issues by next turnaround (1Q2013).				
		Applicable Regulation / Permit Condition / Other: <u>Title V-VI(18372)(31)</u>		
Date Event Started:	Date Event Stopped:	Source (S#):	Abatement Device (A#):	Emission Point (P#):
<u>03/20/2012</u>	<u>03/20/2012</u>	<u>S909</u>		
Event Description: Reported an out-of-box condition for F-9 under Reportable Compliance Activity ID# 08E41.				
<u>Probable Cause:</u> The furnace was running outside of its box, with a slightly higher firing rate than previously tested.				
<u>Corrective Action or Preventive Steps Taken:</u> A source test was conducted to determine the NOX emissions data during higher firing duty.				
		Applicable Regulation / Permit Condition / Other: <u>Title V-VI(11433)(9)</u>		
Date Event Started:	Date Event Stopped:	Source (S#):	Abatement Device (A#):	Emission Point (P#):
<u>03/20/2012</u>	<u>03/24/2012</u>	<u>S802</u>	<u>S901</u>	
Event Description: Reported excess CO (>500 ppm CO) at No. 7 Boiler on 3/20/2012 4-5 AM under RCA #06E36 and other intermittent excesses under RCA # 08E40.				
<u>Probable Cause:</u> Maldistribution of air due to pluggage in regenerator air				
<u>Corrective Action or Preventive Steps Taken:</u> Maintenance repaired/unplugged regenerator air (lower east quadrant).				

## Applicable Regulation / Permit Condition / Other:

Title V-VI(18372)(31)Date Event  
Started:Date Event  
Stopped:03/21/201203/21/2012Source (S#): S920

Abatement Device (A#):

Emission Point (P#):

Event Description: Reported an out-of-box condition for F-20 under RCA ID# 06E42. On June 7, 2012, BAAQMD informed Tesoro that NOX out-of-box conditions are no longer considered Title V deviations.

Probable Cause:

Unit was operating at a new "low" firing rate and high O2. This was due to a heavy feed upset and the unit went into circulation.

Corrective Action or Preventive Steps Taken:

The heater was in curtailed operations as allowed by the the Regulation 9-10 and our Title V permit condition 18372 (31)(B).

## Applicable Regulation / Permit Condition / Other:

Title V-VI(18372)(31)Date Event  
Started:Date Event  
Stopped:03/24/201203/26/2012Source (S#): S912

Abatement Device (A#):

Emission Point (P#):

Event Description: Reported an out-of-box condition for F-12 under RCA # ID 06E48 on 3/24/2012 and 3/26/2012.

Probable Cause:

Operations is running the heater more efficiently at lower excess oxygen.

Corrective Action or Preventive Steps Taken:

A source test will be conducted to determine the NOX emissions data when Operations can replicate the duty and excess oxygen.

## Applicable Regulation / Permit Condition / Other:

Title V-VI(18372)(31)Date Event  
Started:Date Event  
Stopped:03/26/201203/29/2012Source (S#): S919

Abatement Device (A#):

Emission Point (P#):

Event Description: Reported out-of-box condition for F-19 under RCA # 06E52 for 3/26/2012 and a second out-of-box condition for 3/29/2012.

Probable Cause:

Heavy feed upset caused unit circulation, which lowered the average fuel firing rate.

Corrective Action or Preventive Steps Taken:

The unit was circulating, so the heater was in curtailed operations as allowed by the the Regulation 9-10 and our Title V permit condition 18372 (31)(B).



Applicable Regulation / Permit Condition / Other:

Title V-VI(18372)(31)(A)

Date Event Started:      Date Event Stopped:

04/03/2012      04/04/2012      Source (S#): S916      Abatement Device (A#):      Emission Point (P#):

Event Description: Reported an out-of box compliance activity for F-16 heater in #1 HDS Unit under Reportable Compliance Activity Excess ID# 06E64.

Probable Cause:

The heater was running at lower O2 levels than shown in our permit condition.

Corrective Action or Preventive Steps Taken:

A source test will be conducted when Operations can replicate the lower oxygen concentration, and the NOX emissions data will be submitted to District staff for review.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-1-307

Date Event Started:      Date Event Stopped:

04/19/2012      04/19/2012      Source (S#): S1401      Abatement Device (A#):      Emission Point (P#): A1525

Event Description: Reported a one hour excess of SO2 (>250 ppm/Clock hour) under Reportable Compliance Activity # 06E82. Max hourly average was 282 ppm.

Probable Cause:

SCOT electric air blower shutdown and tripped the unit.

Corrective Action or Preventive Steps Taken:

Operators quickly reestablished air rate to the SCOT unit with the turbine air blower. Inspections of electric motor and blower were completed and no mechanical issues were discovered. Breaker was reset and Maintenance increased observations of electric air blower.

Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301

Date Event Started:      Date Event Stopped:

04/22/2012      04/22/2012      Source (S#): B2758      Abatement Device (A#):      Emission Point (P#):

Event Description: Reported a H2S emission excess > 30 ppb/60 minute average at Waterfront GLM under Reportable Compliance Activity ID 06E86. (Max = 32.7 ppb/60 minutes)

Probable Cause:

Suspect anaerobic activity at the oxidation pond due to higher temperatures.

Corrective Action or Preventive Steps Taken:

Added hydrogen peroxide to return to the normal aerobic reactions.

## Applicable Regulation / Permit Condition / Other:

Date Event Started:      Date Event Stopped:

05/01/201205/01/2012Source (S#): S971

Abatement Device (A#):

Emission Point (P#):

Event Description: Indicated CO excess ONLY @ 3 REF F53/F54. MAX=103.9 PPM/8 HR AVG. The Title V permit had an erroneous limit of 50 ppm CO, which was corrected on June 11, 2012. Actual limit is 400 ppm under Reg 9-10.

Probable Cause:

Box O2 controller likely failed & gave false indications to the system resulting in the CO excess.

Corrective Action or Preventive Steps Taken:

Operators increased oxygen and CO returned to normal ranges.

## Applicable Regulation / Permit Condition / Other:

BAAQMD 8-2-301

Date Event Started:      Date Event Stopped:

05/01/201205/01/2012Source (S#): S1005

Abatement Device (A#):

Emission Point (P#):

Event Description: Received source test results for Vent #2 at #1 Hydrogen Plant on May 1, 2012. Test shows an indicated excess due to an unknown compound, causing results to exceed Reg 8-2 limits (15 lbs/day and 300 ppm). Investigating potential causes.

Probable Cause:

Possible inorganic/organic compound that is causing spike in GC.

Corrective Action or Preventive Steps Taken:

The Avogadro Group made sure sampling technique and equipment were not contaminated. Tesoro obtained additional samples of process streams in the hydrogen plant to check if there were contaminants in those streams. Avogadro performed the third source test of the vent after MDEA and catalyst were replaced, including sample analyses at multiple laboratories. There were discrepancies between lab results that we are working to resolve.

## Applicable Regulation / Permit Condition / Other:

BAAQMD 9-2-301

Date Event Started:      Date Event Stopped:

05/06/201205/06/2012Source (S#): B2758

Abatement Device (A#):

Emission Point (P#):

Event Description: Reported Waterfront GLM H2S excess of 80 ppb/3 minute average under RCA # 06F12. Max 3 minute average reached 61.6 ppb. Investigating cause.

Probable Cause:

The wind direction during the event was from the south, south-east, and southwest. The wind speed was approximately 3 miles per hour. There were no abnormal operating conditions at the time.

Corrective Action or Preventive Steps Taken:

Operations staff reviewed process data and logs and were not able to pinpoint the source of the ground level monitor excess.

Applicable Regulation / Permit Condition / Other:  
Title V-VI(18372)(31)

Date Event Started: 05/19/2012  
Date Event Stopped: 06/07/2012

Source (S#): S913

Abatement Device (A#):

Emission Point (P#):

Event Description: Reported an out-of-box condition for Furnace F-13 under Reportable Compliance Activity #06F41. - Out of box conditions are no longer considered Title V deviations based on an e-mail dated 6/7/2012 from Jeff Gove, BAAQMD Supervising Air Quality Specialist.

Probable Cause:

Furnace F-13 at #2 Feed Prep was running at higher firing duty than currently shown in our NOX box conditions.

Corrective Action or Preventive Steps Taken:

The source test contractor performed source test at a similarly high rate of furnace firing and the associated O2 level to determine new box conditions.

Applicable Regulation / Permit Condition / Other:  
Title V-VI(18372)(31)

Date Event Started: 05/19/2012  
Date Event Stopped: On Going

Source (S#): S916

Abatement Device (A#):

Emission Point (P#):

Event Description: Reported out-of-box condition for Furnace F-16 under Reportable Compliance Activity #06F40. - Out of box conditions are no longer considered Title V deviations based on an e-mail dated 6/7/2012 from Jeff Gove, BAAQMD Supervising Air Quality Specialist.

Probable Cause:

Furnace F-16 was operating at lower oxygen content than currently shown in NOX Box condition.

Corrective Action or Preventive Steps Taken:

Air Science performed the source test at a similar oxygen content and rate of firing to determine new box conditions.

Applicable Regulation / Permit Condition / Other:  
BAAQMD 8-33-305(1), BAAQMD 8-33-309(5)(1)

Date Event Started: 05/23/2012  
Date Event Stopped: 05/23/2012

Source (S#): S1026

Abatement Device (A#):

Emission Point (P#):

Event Description: During a routine source test of the loading rack by District staff, District observed duct tape on two pinhole leaks on two vapor recovery hoses and a leaking connector on another vapor recovery hose.

Probable Cause:

Duct tape was used to repair pinholes on vapor recovery lines. However, due to the flexibility of the hose, gaps likely occurred and allowed gases to go to atmosphere.

Corrective Action or Preventive Steps Taken:

Operations immediately removed two hoses from service and had the the third hose replaced. Operations banned the use of duct tape. A task list was generated for daily inspections, which also includes specific corrective actions if items are discovered during the inspections. Training will be conducted for all operators.

Applicable Regulation / Permit Condition / Other:  
BAAQMD 8-18-402

Date Event Started: 05/23/2012      Date Event Stopped: 05/29/2012      Source (S#): S802      Abatement Device (A#):      Emission Point (P#):

Event Description: During a District fugitive inspection, components on a natural gas line were missing fugitive emission tags.

Probable Cause:

The line was labeled, "bleed gas," instead of natural gas.

Corrective Action or Preventive Steps Taken:

Tags were installed and the fugitive database was updated.

Applicable Regulation / Permit Condition / Other:  
BAAQMD 8-18-402, BAAQMD 8-18-307

Date Event Started: 06/01/2012      Date Event Stopped: 06/01/2012      Source (S#): S1008, S1007      Abatement Device (A#):      Emission Point (P#):

Event Description: During a District fugitive inspection, missing tags were discovered at "A" Compressor and 5 drops per minute were observed on a sample point. NOV #47081 was issued on June 28 for the Hydrocracker Stage 2 (S1007) liquid leak. NOV #A47088 was issued on June 14 for the missing tags at Hydrocracker Stage 1 (S1008).

Probable Cause:

The sample point was recently used and the sample point cap was inadvertently left loose.

Corrective Action or Preventive Steps Taken:

The sample point cap was tightened and the leak stopped within 5 minutes of discovery. Tags were installed and the fugitives database was updated.

Applicable Regulation / Permit Condition / Other:  
BAAQMD 8-18-301

Date Event Started: 06/05/2012      Date Event Stopped: 06/05/2012      Source (S#): S1020, S1008      Abatement Device (A#):      Emission Point (P#):

Event Description: During a routine District fugitive inspection of the Alky, leaks were discovered on two open-ended lines. A missing cap on the sample point at #3 Reformer was also found and replaced. Other fugitive items were identified that have prescribed repair periods. NOV #A47090 for the Alky and NOV #A47089 for the Reformer were issued on June 14, 2012.

Probable Cause:

Bull plugs and sample caps were not installed.

Corrective Action or Preventive Steps Taken:

Bull plugs were installed. The sample cap was replaced. Leaks were repaired within the allowable time frames.

## Applicable Regulation / Permit Condition / Other:

BAAQMD 8-2-301Date Event  
Started:Date Event  
Stopped:06/13/201206/13/2012Source (S#): S1005

Abatement Device (A#):

Emission Point (P#):

Event Description: Tesoro received draft source test results for Vent #2 at #1 Hydrogen Plant on June 13, 2012. Two labs, AAC and Enthalpy, were used for analyses- one detected an unknown compound and the other did not. The second lab extended the run time and used a different GC column and upon retesting confirmed the detection of the unknown compound. The unknown compound signifies an indicated excess of the Reg 8-2 limits of 15 lbs/day and 300 ppm.

Probable Cause:

Possible Methyl-diethanol amine (MDEA) solution carryover,

Corrective Action or Preventive Steps Taken:

Tesoro sent the MDEA solution (~45% MDEA) to AAC. The lab diluted the sample to ~1000 ug/ml and a peak matched the previously unknown GC peak. The sample has been sent to Ineos, the MDEA supplier, to determine concentration since the other two labs do not have standards for the possible chemical in the MDEA solution. Engineering and the MDEA supplier are also investigating possible causes of MDEA solution carryover at Vent #2.

## Applicable Regulation / Permit Condition / Other:

BAAQMD 8-18-307Date Event  
Started:Date Event  
Stopped:06/28/201206/28/2012Source (S#): S1009

Abatement Device (A#):

Emission Point (P#):

Event Description: DIB Charge Pump Sample Station was dripping 5 drops per minute and 20,000 ppm leak concentration. NOV #A47092 was issued.

Probable Cause:


The quick disconnect sample point likely had corrosion.

Corrective Action or Preventive Steps Taken:

The quick disconnect was lubricated, reconnected and found to be leaking at 1100 ppm. Maintenance replaced the quick disconnect with a new one and fugitive monitoring indicated a 3 ppm concentration, which is within the allowed limit of 100 ppm.

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

Stephen W. Hansen

Print Name

Vice President,  
Golden Eagle Refinery

Title

7/26/12

Date

*SYL am cis*