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BAY AREA AIR QUALITY MANAGEMENT DISTRICT

Shell Oil Products US

Martinez Refinery
PO Box 711
Martinez, CA 94553-0071
Tel (925) 313-3000
Fax (925) 313-3065

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

July 9, 2018

Director of Compliance and Enforcement
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105
Attn: Title V Reports

Subject: **Semi-Annual Title V Deviation Summary Report**
January 1, 2018 – June 30, 2018

To Whom It May Concern:

Please find Shell Oil Products US, Martinez Refinery's Semi-Annual Title V Deviation Summary report for the period of January 1, 2018 through June 30, 2018. This report includes a summary of the inoperable monitors for the first half of 2018.

The refinery's Responsible Official, Tom Rizzo, has signed the reports.

If you have any questions regarding this matter, please contact Kathy Wheeler at (925) 313-3722.

Sincerely yours,

Gordon Johnson
Manager, Environmental Affairs Department
Shell Oil Products US, Martinez Refinery

Attachments

BAAQMD Title V Permit
6 Month Deviation Summary Report

From 1/1/2018 *to* 6/30/2018

A0011 Shell Oil Products US Martinez Refinery

Facility Address:
3485 Pacheco Blvd
City: Martinez
State: CA
Zip Code: 94553-0071

Mailing Address
PO Box 711
City: Martinez
State: CA
Zip Code: 94553-0071

Contact: Liz Rosales Title: Environmental Speciali Phone: (925) 313-3857

Title V deviations for the reporting period are summarized below:

Event Started: 1/22/2018 10:48 PM
Stopped: 1/22/2018 10:51 PM ☐ Ongoing Event

Source Number: 1512
Abatement Device : A14
Emission Point:

May have resulted in a violation of :
Permit:
AQMD: Regulation 6 Rule 1 Section 30
Other:

Event Description: COB #3 Opacity analyzer 9AI2533 showed an indicated excess of greater than 1 Ringelmann over 3 minutes in the 2200 clock hour due to walnut shell injection at the CCU.

Probable Cause: Walnut hull injection at the FCCU.

Corrective actions or preventative steps taken: The walnut hull injection was stopped. The refinery is reviewing the procedure for injection to see if there are changes that can be made to avoid opacity excesses.

Event Started: 2/13/2018 8:43 PM
Stopped: 2/13/2018 9:03 PM ☐ Ongoing Event

Source Number: 1509
Abatement Device : A13
Emission Point:

May have resulted in a violation of :
Permit:
AQMD: Regulation 6 Rule 1 Sec 302
Other:

Event Description: COB #2 Opacity analyzer 9AI2531 showed an indicated excess of greater than 1 Ringelmann in a 3 minute clock hour during the 20:00 & 21:00 clock hour due to loss of urea flow.

Probable Cause: Loss of urea flow occurred unexpectedly during filter change.

Corrective actions or preventative steps taken: Urea flow was re-established and opacity came down..

Event Started: 2/16/2018 8:07 AM
Stopped: 2/16/2018 10:43 AM ☐ Ongoing Event

Source Number: 1471
Abatement Device :
Emission Point:

May have resulted in a violation of :
Permit:
AQMD: Regulation 12 Rule 11 Sec 503
Other: 40 CFR 60.18

Event Description: There was a loss of all 3 flare pilots at the LOP Aux flare (S-1471).

Probable Cause: Fluctuation in the natural gas pressure to the pilots.

Corrective actions or preventative steps taken: Pilots relit.

Event Started: 2/18/2018 2:00 AM
Stopped: 2/18/2018 3:00 AM ☐ Ongoing Event

Source Number: 4180
Abatement Device : A4180
Emission Point:

May have resulted in a violation of :
Permit:
AQMD: Regulation 9 Rule 1 Sec 307
Other:

Event Description: SRU 4 stack SO2 analyzer 18AI601 showed an indicated excess of > 250 ppm hour avg in the 2am clock hour.

Probable Cause: SO2 from the sulfur pit resulted in the excess.

Corrective actions or preventative steps taken: Steam was added to the pit and the SO2 returned to compliance.

Event Started: 2/23/2018 9:54 AM
Stopped: 2/23/2018 9:59 AM ☐ Ongoing Event

Source Number: 1509
Abatement Device : A13
Emission Point:

May have resulted in a violation of :
Permit:
AQMD: Regulation 6 Rule 1 Sec 302
Other:

Event Description: COB #2 Opacity analyzer 9AI2531 showed an indicated excess of greater than 1 Ringelmann over 3 minutes during the 09:00 clock hour.

Probable Cause: The excess opacity occurred during installation of the CO blind during the COB2 shutdown process. Although installation of the blind should not have caused an excess, there was no other activity occurring on the unit.

Corrective actions or preventative steps taken: The opacity returned to normal after the initial excess when the line was first opened to install the blind.

Event Started: 2/24/2018 2:14 PM
Stopped: 2/24/2018 2:19 PM ☐ Ongoing Event

Source Number: 1512
Abatement Device : A14
Emission Point:

May have resulted in a violation of :
Permit:
AQMD: Regulation 6 Rule 1 Section 30
Other: EPA NSPS Subpart J/District Re

Event Description: COB #3 Opacity analyzer 9AI2533 showed an indicated excess > than the allowable limits during the 14:00 clock hour.

Probable Cause: The excess occurred while lowering CO dust hopper levels which may have added to the dust load on the precipitators.

Corrective actions or preventative steps taken: Lowering of the dust hopper levels was stopped.

Event Started: 4/1/2018 12:00 PM
Stopped: 4/2/2018 12:00 PM ☐ Ongoing Event

Source Number: 540
Abatement Device :
Emission Point:

May have resulted in a violation of :
Permit:
AQMD: Regulation 8 Rule 5 Section 40
Other:

Event Description: Tank seal inspection reports for 2 tanks inspections conducted on 1/31 were submitted with the February inspection reports at the end of March. The February original report was misplaced and did not go out on 3/29 as intended. This was discovered on Monday April 2. All inspections were completed on time as required and all of the tanks found in compliance. The entire report was reproduced and sent out over-night delivery. The requirement is to submit the reports within 60 days of inspection; this made the 2 inspections conducted on 1/31 over by 1 day. All reports were submitted within 2 calendar months.

Probable Cause: The report was misplaced and did not get mailed out on 3/29 as intended.

Corrective actions or preventative steps taken: The report was mailed as soon as the problem was discovered. The report was submitted within 2 calendar months but at 61 days after the inspections rather than within 60 days.

Event Started: 5/14/2018 10:00 AM
Stopped: 5/14/2018 11:00 AM ☐ Ongoing Event

Source Number: 1507
Abatement Device : A12
Emission Point:

May have resulted in a violation of :
Permit:
AQMD: Regulation 6 Rule 1 Section 30
Other:

Event Description: COB #1 analyzer 9AI 2529 showed an indicated excess of greater than 1 Ringelmann in a 3 minute clock hour during the 10:00 hour for 230 seconds.

Probable Cause: During maintenance on an electrical substation power was inadvertently lost to one of the COB 1 precipitator fields resulting in an opacity spike.

Corrective actions or preventative steps taken: Operations had the electricians immediately restore power to the precipitator and the opacity returned to normal. The electrical work was stopped until they could figure out how to proceed without an opacity excess.

Event Started: 6/16/2018 12:00 PM
Stopped: 6/16/2018 1:00 PM ☐ Ongoing Event

Source Number: 1765
Abatement Device : A76
Emission Point:

May have resulted in a violation of :
Permit:
AQMD: Regulation 9 Rule 1 Sec 307
Other:

Event Description: SRU 3 SO2 analyzer 17AI254 showed an indicated excess of >250 ppm clock hour during the 1200 clock hour.

Probable Cause: SRU tail gas analyzer failed resulting in bad information to operations. Operations adjusted air rate based on the tail gas analyzer resulting in high H2S load in the SCOT plant.

Corrective actions or preventative steps taken: Operations reduced air rate to correct the H2S rich situation.

Event Started: 6/21/2018 9:00 PM
Stopped: 6/22/2018 12:59 AM ☐ Ongoing Event

Source Number: 1507
Abatement Device : A12
Emission Point:

May have resulted in a violation of :
Permit:
AQMD: Regulation 6 Rule 1 Sec. 302
Other:

Event Description: COB #1 Opacity analyzer 9AI2529 showed an indicated excess of > than 1 Ringelmann in the 2100 & 2300 hours on 6/21 & in the 12:00 am hour on 6/22.

Probable Cause: Opacity occurred during catalyst loading at the CCU regenerator in preparation for startup after turnaround.

Corrective actions or preventative steps taken: Catalyst loading was stopped.

Event Started: 6/21/2018 9:25 PM Stopped: 6/22/2018 2:43 AM ☐ Ongoing Event	Source Number: 1512 Abatement Device : A14 Emission Point:	May have resulted in a violation of : Permit: AQMD: Regulation 6 Rule 1 Sec 302 Other:

Event Description: COB #3 Opacity analyzer 9AI2533 showed an indicated excess of > 1 Ringelmann in the 2100 & 2300 hour on 6/21 & 0000, 0100 & 0200 hours on 6/22

Probable Cause: Opacity occurred during catalyst loading at the CCU regenerator in preparation for startup after turnaround.

Corrective actions or preventative steps taken: Catalyst loading was stopped.

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.

x	Tom Rizzo	GM-Shell Mtz Ref	7/12/18
Signature of Responsible Official	Print Name	Title	Date

BAAQMD Title V Permit
6 Month Monitoring Report

From 1/1/2018 to 6/30/2018

A0011 Shell Oil Products US Martinez Refinery

Facility Address:
3485 Pacheco Blvd
City: Martinez
State: CA
Zip Code: 94553-0071

Mailing Address
PO Box 711
City: Martinez
State: CA
Zip Code: 94553-0071

Contact: Liz Rosales Title: Environmental Speciali Phone: (925) 313-3857

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

Started	Stopped		Source (S#)	Abatement Device (A#)	Emission Point (P#)	CEM	GLM	Fuel Gas	Parametric	NOx	SO2	CO	H2S	TRS	NH3	O2	CO2	H2O	Opacity/ LTA	Lead	Steam Flow	Wind Dir.	Wind Speed	pH	Temp.	VOC.	Gauge Press.
1/29/2018 8:50 AM	2/7/2018 5:10 PM	☑				☐	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☑	☐
Event Description: DCU Cooling Water Tower Hydrocarbon analyzer 40A1708 out of service for greater than 24 hours and has been taken out of service for replacement with a new analyzer. All notification have been made to the BAAQMD regarding this replacement as required. All testing and calibrations have been completed and the new analyzer has now been placed on line. It was out of service for a total of 9 days.																											
2/6/2018 12:30 PM	2/8/2018 12:20 PM	☑				☐	☐	☐	☑	☐	☐	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Event Description: SRU 4 TRS/H2S analyzer 18A234 was out of service greater than 24 hours due to analyzer reading not representative of process due to issues with the sampling system.																											
3/10/2018 1:05 PM	3/14/2018 6:15 PM	☑				☑	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Event Description: RFG H2S analyzer 9A1610 was out of service for >24 hours. Analyzer reading was suspect.																											
3/17/2018 7:30 AM	3/18/2018 12:15 PM	☑				☑	☐	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Event Description: Chimney #1 West NOx CEM 2A272 was out of service for greater than 24 hours due to low vacuum pressure																											
5/19/2018 6:20 PM	5/20/2018 6:35 PM	☑	1762			☐	☐	☐	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Event Description: F-128 NoX analyzer 4AI1126 was out of service greater than 24 hours due to heat tracing malfunction.																											
5/20/2018 10:55 PM	5/25/2018 4:00 PM	☑				☑	☐	☐	☐	☐	☐	☐	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Event Description: Refinery Fuel Gas H2S/TRS analyzer 9A2831/2825 was out of service for greater than 24 hours due to a loss of power.																											
5/22/2018 3:00 AM	5/30/2018 10:00 AM	☑				☑	☐	☐	☐	☐	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Event Description: Refinery Fuel Gas H2S analyzer 9A1610 was out of service for greater than 24 hours. Issues with sample system pump.																											
6/27/2018 11:36 AM		☐				☐	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
Event Description: OPCEN hydrocarbon flare gas flow analyzer 14F4229 will be out of service for greater than 24 hours. Analyzer reading was suspect.																											

Started	Stopped	Source (S#)	Abatement Device (A#)	Emission Point (P#)	CEM	GLM	Fuel Gas	Parametric	NOx	SO2	CO	H2S	TRS	NH3	O2	CO2	H2O	Opacity/ LTA	Lead	Steam	Flow	Wind Dir.	Wind Speed	pH	Temp.	VOC.	Gauge Press.
6/27/2018 11:36 AM	☐				☐	☐	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Event Description: OPCEN hydrocarbon flare gas flow analyzer 14F4229 will be out of service for greater than 24 hours. Analyzer reading was suspect.

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.

x [signature] Signature of Responsible Official

Tom Rizzo Print Name

Cal-Shell Mtz Rpt Title

7/12/18 Date

CERTIFIED MAIL®

Shell Oil Products US
P.O. Box 711
Martinez, CA 94553

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Director of Compliance and Enforcement
Bay Area Air Quality Management District
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San Francisco, CA 94105

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