



Benicia Refinery • Valero Refining Company - California
3400 East Second Street • Benicia, California 94510-1097 • Telephone (707) 745-7011 • Facsimile (707) 745-7339

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July 22, 2019

Refinery & Asphalt Plant
June 2019 30-day Title V Deviation Report
Monitoring Report for January 2019-June 2019

RECEIVED

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BAY AREA AIR QUALITY
MANAGEMENT DISTRICT

Mr. Jeff Gove
Director Of Compliance and Enforcement
Bay Area Air Quality Management District
375 Beale Street, Suite 600
San Francisco, CA 94105

5447, 5471, 5556, 5472,
5401, 5416, 5493, 5468,
5350, 5393, 5412, 5483,
5388, 5341, 5340, 5494,
5518, 5556, 5575, 5432, 5518
DEVIATION
BAAQMD DEV.# 5518, 5556, 5575, 5432, 5518
DATE REC'D (30) 7/25/19

Dear Mr. Gove:

Per Standard Condition I.F of Valero's Title V permits issued for the Fuels Refinery (B2626) and the Asphalt Plant (A0901) and Permit B5574, enclosed are 30-day deviation reports summarizing June 2019 Title V deviations at all three facilities. Also enclosed are the certified Semi-annual Monitoring Title V reports for all three facilities. Please note that the reporting convention for these reports is that deviations *discovered* during the calendar month are included along with any on-going events, regardless of when the event started.

The format and content of these reports is consistent with guidance provided by Mr. Steve Hill, BAAQMD Permit Evaluation Manager, in his letter dated January 8, 2004.

Please contact me at 707-745-7361 if you have any questions or need further information,

Sincerely,
Olivia D. Thomas
Olivia D. Thomas
Environmental Engineer

ODT/tac
Enclosures

BAAQMD Title V Permit
6 Month Monitoring Report

From 1/1/2019 to 6/30/2019

A0901 Valero Benicia Asphalt Plant

Facility Address:

3001 Park Road
Benicia, CA 94510

Mailing Address:

3001 Park Road
Benicia, CA 94510

Contact: Kim Ronan

Title: Manager - Environmental Engineering

Phone: (707) 745-7990

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

No Inoperable Monitors for this time period.

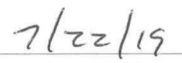
Certification Statement

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 of Responsible Official

Donald C. Wilson
Print Name

Vice President and General Manager
Title


Date

BAAQMD Title V Permit
6 Month Deviation Summary Report

From 1/1/2019 to 6/30/2019

B5574 Valero Benicia Refinery

Facility Address:

3400 East Second Street
Benicia, CA 94510

Mailing Address:

3400 East Second Street
Benicia, CA 945101097

Contact: Kim Ronan

Title: Manager - Environmental Engineering

Phone: (707) 745-7990

Title V deviations for the reporting period are summarized below:

No deviation for this time period.

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 of Responsible Official

Donald C. Wilson

Print Name

Vice President and General Manager

Title

7-22-19

Date

BAAQMD Title V Permit
6 Month Monitoring Report

From 1/1/2019 to 6/30/2019

B5574 Valero Benicia Refinery

Facility Address:

3400 East Second Street
Benicia, CA 94510

Mailing Address:

3400 East Second Street
Benicia, CA 945101097

Contact: Kim Ronan

Title: Manager - Environmental Engineering

Phone: (707) 745-7990

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

No Inoperable Monitors for this time period.

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  Donald C. Wilson Vice President and General Manager 7-22-19
Signature of Responsible Official Print Name Title Date

BAAQMD Title V Permit 6 Month Deviation Summary Report

From 1/1/2019 to 6/30/2019

B2626 Valero Benicia Refinery

Facility Address:

3400 East Second Street
Benicia, CA 945101097

Mailing Address:

3400 East Second Street
Benicia, CA 945101097

Contact: Kim Ronan

Title: Manager - Environmental Engineering

Phone: (707) 745-7990

Title V deviations for the reporting period are summarized below:

Event Started: 12/14/2015 12:00 AM Stopped: _____ Ongoing Event

May have resulted in a violation of:

Source Number: S1010-Hydrogen Production Facilities
Abatement Device: _____
Emission Point: _____

Permit: _____
AQMD: 8-2-301
Other: _____

1073 Event Description: The BAAQMD determined there are excessive continuous POC emissions from the hydrogen vent (H2P017). These emissions are attributed to the Catalytic Reformer (NRU).

Probable Cause: Hydrogen plant configuration

Corrective actions or preventative steps taken: Ongoing; remedies being investigated

Episode ID #:

NOV: 58465

DEV. #5432
(submitted 4/19/19)

BAAQMD Title V Permit 6 Month Deviation Summary Report

From 1/1/2019 to 6/30/2019

B2626 Valero Benicia Refinery		
Facility Address: 3400 East Second Street Benicia, CA 945101097	Mailing Address: 3400 East Second Street Benicia, CA 945101097	
Contact: Kim Ronan	Title: Manager - Environmental Engineering	Phone: (707) 745-7990

Title V deviations for the reporting period are summarized below:

Event Started: 8/1/2017 12:00 AM Stopped: 5/24/2019 12:00 PM <input type="checkbox"/> Ongoing Event		
Source Number: S265-Gasoline Dispensing Facility (GDF)	Permit:	
Abatement Device:	AQMD: 8-7-301.2	
Emission Point:	Other: CARB EO-VR302G	

May have resulted in a violation of:

DEV. # 5388
(submitted 3/25/19)

1064 Event Description: AMENDED (7/19/19): BAAQMD alleges that the ConVault AST is not painted with CARB Certified Standing Loss Control Paint. Valero disagrees with the BAAQMD determination regarding the standing loss control paint. CARB Executive Order does not list the model and serial number purchased. Possible typo error by CARB. This installation was approved and permitted by the BAAQMD prior to purchase, construction and installation. The permit application fully disclosed the equipment specifications (attached). The installation has the Original Equipment Manufacturer (OEM) coating that meets standing loss control standards.

Valero has contacted the manufacturer / distributor who has determined that there was a mistake in the CARB EO VR-302G (and several previous versions) resulting in a typographical error or missing serial number options listed in the ConVault appendix table.

It was the intent of CARB Executive Order to include all ConVault ASTs. As the vendor stated to Chris Thompson (CThompson@baaqmd.gov) in a phone call and email, "If you look at VR-302-C, [a superseded version of the EO], ...CARB has changed the format of the page with the example model numbers. In the process of changing the format and issuing a new EO, they inadvertently change the allowable model numbers." The typographical error went undetected until now.

BAAQMD Title V Permit 6 Month Deviation Summary Report

From 1/1/2019 to 6/30/2019

B2626

Valero Benicia Refinery

Facility Address:

3400 East Second Street
Benicia, CA 945101097

Mailing Address:

3400 East Second Street
Benicia, CA 945101097

Contact: Kim Ronan

Title: Manager - Environmental Engineering

Phone: (707) 745-7990

Title V deviations for the reporting period are summarized below:

Valero agrees with the manufacturer's determination.

The manufacturer has contacted George Lew at CARB and is awaiting a response. The Manufacturer will be requesting a letter modifying the EO to include all serial numbers.

Valero submitted a copy of the NOV, the picture of the tank UL Label, and the two pages of VR-302 as referred.

Valero, BAAQMD and ConVault worked diligently together to select the equipment such that it complied with all regulatory requirements. Valero believes that recoating the tank with second coating that duplicates the existing Standing Loss Control Paint would be creating more emissions from the paint application on a brand new tank solely for the goal of mitigating a typographical error.

Valero and ConVault will continue to pursue administrative remedies with CARB to correct this situation

Probable Cause: CARB Executive Order does not list the model and serial number purchased. Possible typo error by CARB.

This installation was approved and permitted by the BAAQMD prior to purchase, construction and installation. The permit application fully disclosed the equipment specifications (attached). The installation has the Original Equipment Manufacturer (OEM) coating that meets standing loss control standards.

Valero has contacted the manufacturer / distributor who has determined that there was a mistake in the CARB EO VR-302G (and several previous versions) resulting in a typographical error or missing serial number options listed in the ConVault appendix table.

It was the intent of CARB Executive Order to include all ConVault ASTs. As the vendor stated to Chris Thompson (CThompson@baaqmd.gov) in a

BAAQMD Title V Permit 6 Month Deviation Summary Report

From 1/1/2019 to 6/30/2019

B2626	Valero Benicia Refinery	
Facility Address: 3400 East Second Street Benicia, CA 945101097	Mailing Address: 3400 East Second Street Benicia, CA 945101097	
Contact: Kim Ronan	Title: Manager - Environmental Engineering	Phone: (707) 745-7990

Title V deviations for the reporting period are summarized below:

phone call and email,

"If you look at VR-302-C, [a superseded version of the EO], ...CARB has changed the format of the page with the example model numbers. In the process of changing the format and issuing a new EO, they inadvertently change the allowable model numbers." The typographical error went undetected until now.

Valero agrees with the manufacturer's determination.

The manufacturer has contacted George Lew at CARB and is awaiting a response. The Manufacturer will be requesting a letter modifying the EO to include all serial numbers.

Valero submitted a copy of the NOV, the picture of the tank UL Label, and the two pages of VR-302 as referred.

Valero, BAAQMD and ConVault worked diligently together to select the equipment such that it complied with all regulatory requirements. Valero believes that recoating the tank with second coating that duplicates the existing Standing Loss Control Paint would be creating more emissions from the paint application on a brand new tank solely for the goal of mitigating a typographical error.

Valero and ConVault will continue to pursue administrative remedies with CARB to correct this situation

Corrective actions or
preventative steps taken:

Episode ID #:

NOV: 59038

BAAQMD Title V Permit 6 Month Deviation Summary Report

From 1/1/2019 to 6/30/2019

B2626	Valero Benicia Refinery		
Facility Address:		Mailing Address:	
3400 East Second Street Benicia, CA 945101097		3400 East Second Street Benicia, CA 945101097	
Contact: Kim Ronan	Title: Manager - Environmental Engineering	Phone: (707) 745-7990	

Title V deviations for the reporting period are summarized below:

Event Started: <u>1/22/2019</u> 12:00 PM Stopped: <u>2/27/2019</u> 3:27 PM <input type="checkbox"/> Ongoing Event		May have resulted in a violation of:	
Source Number: <u>unassigned-Tank, Refrigerated Butane Tank, TK-1726</u>	Permit: <u></u>	AQMD: <u>8-5-306.2</u>	Other: <u></u>
Abatement Device: <u></u>			
Emission Point: <u></u>			

1062 Event Description: PV Vents on TK1726 exceeded 500ppm emission standard during BAAQMD inspection on 1/22/2019.

Probable Cause: PV vents not gas tight.

Corrective actions or preventative steps taken: Contacted Valero Maintenance to obtain spare PV vents and to schedule manpower and crane to replace PV vents. LDAR tags: 178140 (SV-17160SD), 178142 (SV-17109), 178144 (SV-17110), 178146 (SV-17111). All repairs completed 2/27/2019.

Episode ID #:

NOV: 58456

Dev. # 5341
(submitted 2/28/19)

BAAQMD Title V Permit 6 Month Deviation Summary Report

From 1/1/2019 to 6/30/2019

B2626 Valero Benicia Refinery		
Facility Address: 3400 East Second Street Benicia, CA 945101097	Mailing Address: 3400 East Second Street Benicia, CA 945101097	
Contact: Kim Ronan	Title: Manager - Environmental Engineering	Phone: (707) 745-7990

Title V deviations for the reporting period are summarized below:

Event Started: <u>1/22/2019 10:00 AM</u> Stopped: <u>2/19/2019 11:28 AM</u> <input type="checkbox"/> Ongoing Event		May have resulted in a violation of:	
Source Number: <u>S124-Tank, TK-1735</u>	Permit: <u></u>	AQMD: <u>8-5-306.2</u>	Other: <u></u>
Abatement Device: <u></u>			
Emission Point: <u></u>			

1061 Event Description: PV Vents on TK1735 exceeded 500ppm emission standard during BAAQMD inspection on 1/22/2019.

Probable Cause: PV vents not gas tight.

Corrective actions or preventative steps taken: Contacted Valero Maintenance to obtain spare PV vents and to schedule manpower and crane to replace PV vents. LDAR Tags: 184311 (SV-1705A) and 184313 (SV-1705B). Repair complete 2/19/19.

Episode ID #:

NOV: 58454

DEV. #5340
(submitted 2/28/19)

BAAQMD Title V Permit 6 Month Deviation Summary Report

From 1/1/2019 to 6/30/2019

B2626	Valero Benicia Refinery
Facility Address:	Mailing Address:
3400 East Second Street Benicia, CA 945101097	3400 East Second Street Benicia, CA 945101097
Contact: Kim Ronan	Title: Manager - Environmental Engineering
	Phone: (707) 745-7990

Title V deviations for the reporting period are summarized below:

Event Started: 1/30/2019 12:00 PM Stopped: 1/30/2019 12:00 PM <input type="checkbox"/> Ongoing Event
--

Source Number: REFFUG-Benicia Refinery Fugitives
Abatement Device:
Emission Point:

May have resulted in a violation of:

Permit:
AQMD:
Other: 40 CFR 60.482-7

1063 Event Description: 4Q2018 refinery fugitive deviation report includes: 5 valves were not monitored within 30 days of startup.

Components were monitored after discovery. All components were verified to be below the leak standard.

The Benicia Refinery has over 263,000 components in its database. A healthy fugitive emissions program will self-audit to identify single items or systems that may not be in compliance. By identifying these outliers, program improvements can be achieved.

Probable Cause: Technician missed tagging the components during management of change process.

Corrective actions or preventative steps taken: Components were monitored after discovery. All components were verified to be below the leak standard. Routine auditing of the refinery fugitives program and procedures, as well as program improvement projects are conducted.

Episode ID #:

NOV: 58455

Dev. #5350
(submitted 2/28/19)

BAAQMD Title V Permit 6 Month Deviation Summary Report

From 1/1/2019 to 6/30/2019

B2626	Valero Benicia Refinery
Facility Address:	Mailing Address:
3400 East Second Street Benicia, CA 945101097	3400 East Second Street Benicia, CA 945101097
Contact: Kim Ronan	Title: Manager - Environmental Engineering
	Phone: (707) 745-7990

Title V deviations for the reporting period are summarized below:

Event Started: <u>3/7/2019 10:56 AM</u> Stopped: <u>6/25/2019 1:04 PM</u> <input type="checkbox"/> Ongoing Event
--

May have resulted in a violation of:

Source Number: <u>unassigned-Tank, Refrigerated Butane Tank, TK-1726</u>	Permit: <u>8-5-306.2</u>
Abatement Device: <u></u>	AQMD: <u></u>
Emission Point: <u></u>	Other: <u></u>

1066 Event Description: AMENDED: PV vents on TK1726 exceeded 500ppm emission standard during BAAQMD inspection on 3/7/2019.

Probable Cause: PV vents not gas tight.

Corrective actions or preventative steps taken: Contacted Valero Maintenance to obtain spare PV vents and to schedule manpower and crane to replace PV vents. LDAR tags: 178140 (SV-17160SP) repaired 5/6/19 14:45, 178142 (SV-17109) repaired 6/25/19 13:04, 178144 (SV-17110) repaired 6/18/19 14:21, 178146 (SV-17111) repaired 6/18/19 16:00, 178150 (SV-1734C) repaired 6/18/19 16:20.

Episode ID #:

NOV: 58470

DEV.#5393
(submitted 4/19/19)

BAAQMD Title V Permit 6 Month Deviation Summary Report

From 1/1/2019 to 6/30/2019

B2626	Valero Benicia Refinery		
Facility Address:		Mailing Address:	
3400 East Second Street Benicia, CA 945101097		3400 East Second Street Benicia, CA 945101097	
Contact: Kim Ronan	Title: Manager - Environmental Engineering	Phone: (707) 745-7990	

Title V deviations for the reporting period are summarized below:

Event Started: 3/11/2019 4:41 PM Stopped: 3/24/2019 7:39 AM <input type="checkbox"/> Ongoing Event		May have resulted in a violation of:	
Source Number:	S5-FCCU Regenerator, R-702; S6-Coker Burner, R-902	Permit:	
Abatement Device:	A1047-Flue Gas Scrubber (Belco & Cansolv); A1059-Flue Gas Scrubber SCR	AQMD:	6-1-301
Emission Point:	P1059-FGS Stack ST-5601	Other:	

1067 Event Description: AMENDED (7/22/19): The BAAQMD determined that emissions occurred in excess of Ringelmann No. 1 Limitations (6-1-301) at the Flue Gas Scrubber Stack based on a Visible Emissions Evaluation by an inspector.

Valero's opacity monitors are parametric and did not register any excess emissions or opacity.

BAAQMD issued an NOV for Visible Emissions from the Flue Gas Scrubber Stack and assigned it to the S-5 FCCU Source for a period or aggregate periods of more than three minutes in any hour, a visible emission that is as dark or darker than No. 1 on the Ringelmann Chart, or of such opacity as to obscure an observer's view to an equivalent or greater degree.

Probable Cause: Atmospheric Pipestill furnace ("F-105") tube leaks led to the incomplete combustion of crude and subsequent elevated Flue Gas Scrubber carbon monoxide. High temperature creep was the probable cause of the F-105 tube damage.

Corrective actions or preventative steps taken: Enhanced temperature monitoring in additional areas of F-105; enhanced process engineering monitoring for F-105 operations; updated Pipestill operating procedure(s).

Episode ID #:

NOV: 58457; 58458; 58459; 58466; 58468; 58610

Dev. # 5412
(submitted 4/19/19)

BAAQMD Title V Permit 6 Month Deviation Summary Report

From 1/1/2019 to 6/30/2019

B2626 Valero Benicia Refinery

Facility Address:

3400 East Second Street
Benicia, CA 945101097

Mailing Address:

3400 East Second Street
Benicia, CA 945101097

Contact: Kim Ronan

Title: Manager - Environmental Engineering

Phone: (707) 745-7990

Title V deviations for the reporting period are summarized below:

Event Started: 3/11/2019 12:00 AM Stopped: 3/24/2019 12:00 AM Ongoing Event

Source Number: S5-FCCU Regenerator, R-702; S6-Coker Burner, R-902; S1059-CO Furnace F-105; S1060-CO Furnace F-106

Abatement Device:

Emission Point: P1059-FGS Stack ST-5601

May have resulted in a violation of:

Permit: 20820, Part 63 & Part 68a

AQMD:

Other:

1068 Event Description: AMENDED (7/22/19): The Flue Gas Scrubber ST-5601 calendar day average CO 100 ppm limit was exceeded beginning on 3/12/19 at 12:00 AM and is still ongoing. The average for the event from 3/12/19 12:00 AM to 3/15/19 12:00 AM is 873 ppm CO (at 3% O2). An amendment to this report will be submitted when the event has stopped and the calendar day average is below 100 ppm.

DEV - #5401

AMENDED on 3/27/19:

The Deviation status changed to "stopped on 3/24/19 12:00 AM". The Flue Gas Scrubber St-5601 calendar day average CO 100 ppm limit at 3% O2 was exceeded beginning on 3/11/19 at 12:00 AM to 3/24/12:00 AM. The average concentration for the event is 620 ppm CO at 3%O2.

AMENDED 5/2/19:

After further review, the deviation is being amended to change the average concentration for the event. The average concentration for the event was 563 ppm CO @ 3% O2.

Probable Cause: Atmospheric Pipestill furnace ("F-105") tube leaks led to the incomplete combustion of crude and subsequent elevated Flue Gas Scrubber carbon monoxide. High temperature creep was the probable cause of the F-105 tube damage.

BAAQMD Title V Permit 6 Month Deviation Summary Report

From 1/1/2019 to 6/30/2019

B2626	Valero Benicia Refinery		
Facility Address:		Mailing Address:	
3400 East Second Street Benicia, CA 945101097		3400 East Second Street Benicia, CA 945101097	
Contact: Kim Ronan	Title: Manager - Environmental Engineering	Phone: (707) 745-7990	

Title V deviations for the reporting period are summarized below:

Corrective actions or Enhanced temperature monitoring in additional areas of F-105; enhanced process engineering monitoring for F-105 operations; updated Pipestill preventative steps taken: operating procedures(s).

Episode ID #: 07L68

NOV:

Event Started: 3/11/2019 11:12 AM Stopped: 3/24/2019 11:59 PM Ongoing Event

May have resulted in a violation of:

Source Number:	S6-Coker Burner, R-902
Abatement Device:	A1047-Flue Gas Scrubber (Belco & Cansolv)
Emission Point:	P1059-FGS Stack ST-5601

Permit:	
AQMD:	1-301
Other:	HSC 41700

1069 Event Description: AMENDED (7/22/19): BAAQMD issued an NOV for public nuisance from the Coker and the Flue Gas Scrubber Stack and assigned it to the S-6 Coker Source.

Probable Cause: Atmospheric Pipestill furnace ("F-105") tube leaks led to the incomplete combustion of crude and subsequent elevated Flue Gas Scrubber carbon monoxide. High temperature creep was the probable cause of the F-105 tube damage.

Corrective actions or Enhanced temperature monitoring in additional areas of F-105; enhanced process engineering monitoring for F-105 operations; updated Pipestill preventative steps taken: operating procedure(s).

Episode ID #:

NOV: 58460; 58461; 58462; 58464; 58467; 58469

DEV. # 5416
(submitted 4/19/19)

BAAQMD Title V Permit 6 Month Deviation Summary Report

From 1/1/2019 to 6/30/2019

B2626 Valero Benicia Refinery	
Facility Address: 3400 East Second Street Benicia, CA 945101097	Mailing Address: 3400 East Second Street Benicia, CA 945101097
Contact: Kim Ronan	Title: Manager - Environmental Engineering Phone: (707) 745-7990

Title V deviations for the reporting period are summarized below:

Event Started: <u>3/18/2019</u> 2:00 PM Stopped: <u>3/24/2019</u> 11:54 AM <input type="checkbox"/> Ongoing Event

Source Number: S5-FCCU Regenerator, R-702; S6-Coker Burner, R-902
Abatement Device: A1047-Flue Gas Scrubber (Belco & Cansolv)
Emission Point:

May have resulted in a violation of:

Permit: Condition 24245, Parts 17, 18, & 19; 8Condition 20820, Part 61;
AQMD: 6-1-301; 6-1-302; SIP 6-301, SIP 6-302
Other: 40CFR 60.102(a)(1) and (a)(2); 40CFR 60.103(a); 40CFR 63.1564(a)(1) and (a)(2); 40 CFR 63.1565(a)(1), (b)(1)(ii)

1077 Event Description: AMENDED (7/22/19): Further review of the process data from the events starting on March 11, the following additional discoveries were made:

PM and opacity standards for the FCCU were exceeded on 3 clock hours, during 3/18 14:00 (58 gal/kscf), 3/19 13:00 (62 gal/kscf) and 3/23 18:00 (61 gal/kscf), as a result of the new Flue Gas Scrubber Stack parameter L/G going below the minimum limit of 63 gal/kscf. This parametric monitor was established during the November 2018 Performance Test required by EPA as a conditional approval of the AMP that had been submitted on October 27, 2010. This AMP is used to monitor several BAAQMD and EPA standards as well as Condition 24245, parts 18 and 19.

Permit Condition 20820 Part 61 and 40 CFR 63.1565(b)(1)(ii) were not met during the period of time when S-5 (FCCU) was not abated by S-1059/S-1060 between 3/24/2019 10:32 and 11:54AM.

Probable Cause: Atmospheric Pipestill furnace ("F-105") tube leaks led to the incomplete combustion of crude and subsequent elevated Flue Gas Scrubber carbon monoxide. High temperature creep was the probable cause of the F-105 tube damage.

DEN. # 5493
(submitted 5/20/19)

BAAQMD Title V Permit 6 Month Deviation Summary Report

From 1/1/2019 to 6/30/2019

B2626	Valero Benicia Refinery
Facility Address:	Mailing Address:
3400 East Second Street Benicia, CA 945101097	3400 East Second Street Benicia, CA 945101097
Contact: Kim Ronan	Title: Manager - Environmental Engineering Phone: (707) 745-7990

Title V deviations for the reporting period are summarized below:

Corrective actions or Enhanced temperature monitoring in additional areas of F-105; enhanced process engineering monitoring for F-105 operations; updated Pipestill preventative steps taken: [operating procedure\(s\)](#).

Episode ID #: 07M00

NOV:

Event Started: 3/21/2019 5:55 PM Stopped: 3/31/2019 11:59 PM Ongoing Event

May have resulted in a violation of:

Source Number: <u>S5-FCCU Regenerator, R-702</u>	Permit: <u>24545 (14)</u>
Abatement Device: <u>A1059-Flue Gas Scrubber SCR</u>	AQMD: <u></u>
Emission Point: <u>P1059-FGS Stack ST-5601</u>	Other: <u>40 CFR 60, Appendix B, PS 2, 13.2</u>

1076 Event Description: AMENDED (7/19/19): A passing Relative Accuracy Test Audit (RATA) for the FGS SO2 analyzer was not achieved during 1Q2019.

Probable Cause: The failed RATA required scheduling of a new RATA as soon as possible. However, the unit was brought down for maintenance, and due to subsequent startup activities, conducting a new RATA immediately was not possible.

Corrective actions or preventative steps taken: A new RATA was scheduled as soon as feasible on 5/17/19 and passed.

Episode ID #:

NOV:

DEV. # 5447
(sub. 5/20/19)

BAAQMD Title V Permit 6 Month Deviation Summary Report

From 1/1/2019 to 6/30/2019

B2626	Valero Benicia Refinery		
Facility Address:		Mailing Address:	
3400 East Second Street Benicia, CA 945101097		3400 East Second Street Benicia, CA 945101097	
Contact: Kim Ronan	Title: Manager - Environmental Engineering	Phone: (707) 745-7990	

Title V deviations for the reporting period are summarized below:

Event Started: 5/7/2019 6:00 AM Stopped: 5/7/2019 8:00 AM <input type="checkbox"/> Ongoing Event		May have resulted in a violation of:	
Source Number:	S1059-CO Furnace F-105; S1060-CO Furnace F-106; S5-FCCU Regenerator, R-702	Permit:	
Abatement Device:	A1047-Flue Gas Scrubber (Belco & Cansolv)	AQMD:	6-1-301; 6-1-302; SIP-301; SIP-302
Emission Point:	P1059-FGS Stack ST-5601	Other:	

1079 Event Description: During the Cat Unit (FCCU) start up, the Flue Gas Scrubber (FGS) parametric variable "delta P across the Agglo Filtering Module (AFM)" was below the hourly minimum limit of 19 inches of H2O for 2 hours on 5/7/2019 from 6:00 to 8:00. The average dP was 18 inches of H2O during those hours.

AMENDED on 5/16/2019: Included sources S-1059, S-1060 and supplemented violations with BAAQMD Reg 6 and Federal citations.

AMENDED on July 16, 2019: Modified the excess period to 60 minutes since this is a clock hr limit. Removed the following citations/permit conditions applicable to the FCCU and the crude unit furnaces:

(1) 40CFR Part 60.102(a)(2)--Subpart J allows for startup exemption via 40CFR.60.8(c);

(2) PC 24245.19-- it refers to Subpart J in (1);

(3) 40 CFR Part 63.1564(a) (1)--Subpart UUU opacity standard can be complied with via the alternative startup, shutdown, hot standby minimum inlet velocity limit allowed per 40CFR63.1564(a)(5)(ii) during FCCU startup.

(4) Reg 6-1-310 and SIP 6-310-- since these are TSP limits not opacity limits.

Probable Cause: It is not possible to meet this hourly parametric limit when the Cat Unit is starting up and the Coker is shutdown. This hourly parametric limit was established during a performance test conducted when both the Cat and Coker units were running. Benicia's unique configuration of having a

BAAQMD Title V Permit 6 Month Deviation Summary Report

From 1/1/2019 to 6/30/2019

B2626	Valero Benicia Refinery
Facility Address:	Mailing Address:
3400 East Second Street Benicia, CA 945101097	3400 East Second Street Benicia, CA 945101097
Contact: Kim Ronan	Title: Manager - Environmental Engineering Phone: (707) 745-7990

Title V deviations for the reporting period are summarized below:

Flue Gas Scrubber which abates both units makes compliance impossible during this refinery configuration.

Corrective actions or Start up progression
preventative steps taken:

Episode ID #: 07M19

NOV:

Event Started: 5/8/2019 3:00 AM Stopped: 5/9/2019 10:56 AM Ongoing Event

May have resulted in a violation of:

Source Number:	S157-Sulfur Storage Pit At Sulfur Plants, S-157
Abatement Device:	AS1-SGU A Train; AS2-SGU B Train
Emission Point:	PX-Sulfur Pit Atmospheric Vent

Permit:	23446.1
AQMD:	
Other:	

1080 Event Description: Sulfur pit vapors stopped being abated due to air compressor failure.

Probable Cause: Air Compressor failure

Corrective actions or Air Compressor repaired
preventative steps taken:

Episode ID #:

NOV:

Dev. #5472
(sub. to 28119)

BAAQMD Title V Permit 6 Month Deviation Summary Report

From 1/1/2019 to 6/30/2019

B2626	Valero Benicia Refinery		
Facility Address:		Mailing Address:	
3400 East Second Street Benicia, CA 945101097		3400 East Second Street Benicia, CA 945101097	
Contact: Kim Ronan	Title: Manager - Environmental Engineering	Phone: (707) 745-7990	

Title V deviations for the reporting period are summarized below:

Event Started: 5/11/2019 11:37 AM Stopped: 5/11/2019 11:51 AM <input type="checkbox"/> Ongoing Event
--

May have resulted in a violation of:

Source Number: S6-Coker Burner, R-902	Permit: Condition 24198, Part 17
Abatement Device:	AQMD: 6-1-302; SIP 6-302
Emission Point: P69-FCCU/CKR Dumpstack	Other:

1081 Event Description: AMENDED (7/19/19): While resealing the water seal during Coker start-up, the water seal level at the Dumpstack was not established, but no opacity excess occurred. A 30 day follow-up report has been submitted per Permit Condition 24198, Part 17.

AMENDED on 5/17/2019: Updated citations

Probable Cause: No indication of an opacity excess occurred. All normal procedures were followed.

Corrective actions or preventative steps taken: Water seal level was re-established and flow through the vent stack ceased.

Episode ID #:

NOV:

Dev. #5468
(sub. ce 1/28/19)

BAAQMD Title V Permit 6 Month Deviation Summary Report

From 1/1/2019 to 6/30/2019

B2626	Valero Benicia Refinery		
Facility Address:		Mailing Address:	
3400 East Second Street Benicia, CA 945101097		3400 East Second Street Benicia, CA 945101097	
Contact: Kim Ronan	Title: Manager - Environmental Engineering	Phone: (707) 745-7990	

Title V deviations for the reporting period are summarized below:

Event Started: 5/12/2019 6:00 PM Stopped: 5/15/2019 11:00 PM <input type="checkbox"/> Ongoing Event		May have resulted in a violation of:	
Source Number:	S5-FCCU Regenerator, R-702; S1059-CO Furnace F-105; S1060-CO Furnace F-106	Permit:	24245.19
Abatement Device:	A1047-Flue Gas Scrubber (Belco & Cansolv)	AQMD:	6-1-310; SIP 6-310; 6-1-301; 6-1-302; SIP-301; SIP-302
Emission Point:	P1059-FGS Stack ST-5601	Other:	40CFR Part 60.102(a)(2); 40 CFR Part 63.1564(a) (1)

1083 Event Description: The Flue Gas Scrubber (FGS) parametric variable "delta P across the Agglo Filtering Module (AFM)" was below the hourly minimum limit of 19 inches of H2O for 57 hours between 5/12/2019 18:00 and 5/15/2019 23:00. The average dP was 17 inches of H2O during those hours. The hours of non-compliance were not contiguous. The individual periods as well as the average values are listed below:

- 5/12/2019 18:00 to 5/13/2019 14:00 average value=17"H2O;
- 5/13/2019 21:00 to 22:00 value=18"H2O; 23:00 to midnite value=18"H2O
- 5/14/2019 05:00 to 08:00 value=18"H2O;
- 5/14/2019 15:00 to 5/15/2019 23:00 average value=18"H2O.

Probable Cause: Since we are in a refinery-wide start up, it is not possible to meet this hourly parametric limit when the Cat Unit is running at low rates and the Coker is shutdown. This hourly parametric limit was established during a performance test conducted when both the Cat and Coker units were running. Benicia's unique configuration of having a Flue Gas Scrubber which abates both units makes compliance impossible during this refinery configuration.

DEV. #5483
(sub. 4/28/19)

BAAQMD Title V Permit 6 Month Deviation Summary Report

From 1/1/2019 to 6/30/2019

B2626	Valero Benicia Refinery	
Facility Address:	Mailing Address:	
3400 East Second Street Benicia, CA 945101097	3400 East Second Street Benicia, CA 945101097	
Contact: Kim Ronan	Title: Manager - Environmental Engineering	Phone: (707) 745-7990

Title V deviations for the reporting period are summarized below:

Corrective actions or Balance air rate and CO load
preventative steps taken:

Episode ID #: 07M22

NOV:

Event Started: <u>5/19/2019</u> <u>8:00 AM</u> Stopped: <u>5/19/2019</u> <u>11:00 AM</u> <input type="checkbox"/> Ongoing Event

May have resulted in a violation of:

Source Number: <u>S2-Acid Gas Burner, F-1301B</u>
Abatement Device: <u>A14-SGU-A Incinerator (use only for shutdown/upsets/emergencies); A15-SGU-B Incinerator (use only for shutdown/upsets/emergencies)</u>
Emission Point: <u>P1-Main Stack Emission Point, P-1</u>

Permit:	
AQMD:	<u>9-1-307</u>
Other:	

1084 Event Description: AMENDED (7/19/19): Following a severe weather event (hail) and subsequent SRU-A Train Trip, elevated H2S was seen at Flexsorb as SRU-B was making adjustments to the change in flow. The SRU Tail Gas was diverted to the Incinerators for three hours and during this time the average concentration was 3,198 ppm @ 0% O2.

Probable Cause: Severe weather event resulted in unit upset.

Corrective actions or None feasible.
preventative steps taken:

Episode ID #:

NOV:

DEV. #5494
(sub. 6/28/19)

BAAQMD Title V Permit 6 Month Deviation Summary Report

From 1/1/2019 to 6/30/2019

B2626	Valero Benicia Refinery		
Facility Address:		Mailing Address:	
3400 East Second Street Benicia, CA 945101097		3400 East Second Street Benicia, CA 945101097	
Contact: Kim Ronan	Title: Manager - Environmental Engineering	Phone: (707) 745-7990	

Title V deviations for the reporting period are summarized below:

Event Started: 6/6/2019 8:00 AM Stopped: 6/16/2019 8:00 AM <input type="checkbox"/> Ongoing Event

May have resulted in a violation of:

Source Number: S5-FCCU Regenerator, R-702	Permit: 24245 part 25
Abatement Device:	AQMD:
Emission Point: P1059-FGS Stack ST-5601	Other: 40CFR60.104(d), 40CFR60.105(a)(13)

1086 Event Description: S02 analyzer for FGS did not meet the 22 out of 30 day minimum data availability requirement because of unfeasibility to schedule a RATA sooner due to start up activities and bringing the unit to representative rates before a RATA could be conducted.

Probable Cause: An earlier failed RATA required scheduling of a new RATA as soon as possible. However, the unit was brought down for maintenance, and due to subsequent startup activities, conducting a new RATA immediately was not possible.

Corrective actions or preventative steps taken: A new RATA was scheduled as soon as feasible on 5/17/19 and passed.

Episode ID #:

NOV:

DEV - #5518
(sub. 7/25/19)

BAAQMD Title V Permit 6 Month Deviation Summary Report

From 1/1/2019 to 6/30/2019

B2626	Valero Benicia Refinery	
Facility Address: 3400 East Second Street Benicia, CA 945101097	Mailing Address: 3400 East Second Street Benicia, CA 945101097	
Contact: Kim Ronan	Title: Manager - Environmental Engineering	Phone: (707) 745-7990

Title V deviations for the reporting period are summarized below:

Event Started: 6/12/2019 12:31 PM Stopped: 7/8/2019 12:43 PM Ongoing Event

Source Number: S227-Tank, Saturated Pentane Tank, TK-1741 (RFG)
Abatement Device:
Emission Point:

May have resulted in a violation of:

Permit:
AQMD: 8-5-306.2
Other:

1087 Event Description: AMENDED: PV vent on Tank 1741 exceeded 500 ppm emission standard during 1st half 2019 routine fugitive emissions inspection

Probable Cause: PV vent not gas tight

Corrective actions or preventative steps taken: Contacted Valero Maintenance to obtain spare PV vent and to schedule manpower and crane to replace PV vent. LDAR tags: 178849 (SV-17175)

Episode ID #:

NOV:

den. 5575

BAAQMD Title V Permit
6 Month Deviation Summary Report

From 1/1/2019 to 6/30/2019

B2626 Valero Benicia Refinery

Facility Address:

3400 East Second Street
Benicia, CA 945101097

Mailing Address:

3400 East Second Street
Benicia, CA 945101097

Contact: Kim Ronan

Title: Manager - Environmental Engineering

Phone: (707) 745-7990

Title V deviations for the reporting period are summarized below:

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 of Responsible Official

Donald C. Wilson
Print Name

Vice President and General Manager
Title

7/22/19
Date

BAAQMD Title V Permit 6 Month Monitoring Report

From 1/1/2019 to 6/30/2019

B2626 Valero Benicia Refinery

Facility Address:

3400 East Second Street
Benicia, CA 945101097

Mailing Address:

3400 East Second Street
Benicia, CA 945101097

Contact: Kim Ronan

Title: Manager - Environmental Engineering

Phone: (707) 745-7990

Inoperable monitors as defined by BAAQMD Regulations 1-522 and 1-523 for the reporting period are summarized below				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	Guage Press.	
Ref: 1060	Event Starte	1/13/2019 7:12 AM	Stc 1/14/2019 10:15 AM <input checked="" type="checkbox"/> Has Stopped	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Source Number: S237-Boiler, SG-1032				Event Description: SG-1032 NOx analyzer failed daily validation 1/12-1/14. It was recalibrated on 1/14/19 and passed.																							
Abatement Device:																											
Emission Point:																											
Ref: 1065	Event Starte	2/26/2019 7:39 AM	Stc 2/26/2019 10:00 AM <input checked="" type="checkbox"/> Has Stopped	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Source Number:				Event Description: GLM 3 (8303/8203) was re-located to GPS coordinates (38.069294, -122.131344). During re-location and prior to the analyzers being calibrated at the new location the monitor was inoperative.																							
Abatement Device:																											
Emission Point:																											
Ref: 1071	Event Starte	3/24/2019 7:00 AM	Stc 3/25/2019 7:00 AM <input checked="" type="checkbox"/> Has Stopped	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Source Number: S1030-Combustion Turbine Generator, GT-4901; S1031-Heat Recovery Steam Generator, SG-4901				Event Description: The Cogen H2S analyzer failed daily calibration on 3/23/19-3/24/19. It passed daily calibration on 3/25/19.																							
Abatement Device:																											
Emission Point:																											
Ref: 1070	Event Starte	3/24/2019 12:30 PM	Stc 3/26/2019 5:33 PM <input checked="" type="checkbox"/> Has Stopped	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Source Number:				Event Description: FGS CEMS (SO2) failed daily validation starting 3/23/2019 and the in-operative monitor is on going.																							
Abatement Device:				Amended on 3/27/2019																							
Emission Point: P1059-FGS Stack ST-5601				The inoperative monitor status changed to "stopped on 3/26/19 5:33PM". The FGS SO2 passed calibration on 3/26/2019.																							

BAAQMD Title V Permit 6 Month Monitoring Report

From 1/1/2019 to 6/30/2019

B2626	Valero Benicia Refinery	
Facility Address: 3400 East Second Street Benicia, CA 945101097		Mailing Address: 3400 East Second Street Benicia, CA 945101097
Contact: Kim Ronan		Title: Manager - Environmental Engineering Phone: (707) 745-7990

Inoperable monitors as defined by BAAQMD Regulations 1-522 and 1-523 for the reporting period are summarized below				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	Guage Press.	
Ref: 1082	Event Starte	5/16/2019 7:09 AM	Stc 5/16/2019 12:11 PM <input checked="" type="checkbox"/> Has Stopped	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Source Number: S37-Waste Heat Boiler, SG-702				Event Description: SG-702 (S-37) analyzer failed daily validation 5/15-5/16. It was recalibrated on 5/16/19 and passed.																							
Abatement Device:																											
Emission Point:																											
Ref: 1085	Event Starte	5/23/2019 6:19 PM	Stc 5/28/2019 11:31 AM <input checked="" type="checkbox"/> Has Stopped	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Source Number: S16-Acid Gas Flare, ST-2101AG				Event Description: AMENDED: The Acid Gas Flare flow meter was inoperational from 5/23/2019 to 5/28/2019.																							
Abatement Device:																											
Emission Point:																											

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	Donald C. Wilson	Vice President and General Manager	7/22/19
Signature of Responsible Official	Print Name	Title	Date