VALERO

April 28, 2017

CERTIFIED: 7008 2810 0002 1315 1258

Department of Environmental Quality
Office of Environmental Compliance
Enforcement Division
P.O. Box 4312
Baton Rouge, LA 70821-4312

Re: NSPS Excess Emissions & CEM Performance Report – 1st Quarter 2017
Valero Refining - Meraux LLC, Agency Interest # 1238
2500 East St. Bernard Hwy., St. Bernard Parish, Meraux, LA
Title V Permit Numbers: 2500-00001-V14

Gentlemen,

Valero Refining, Meraux LLC hereby submits this Excess Emissions and Monitoring Systems Reports, per LAC 33:III, Chapter 30, 40 CFR 60.7(c), 40 CFR 60.108a(d) and 40 CFR 63.1575 for the First Quarter 2017.

For this reporting period, no CEMS had excess emissions greater than 1 % of the total operating time and no CEMS had downtime greater than 5 % of the total operating time. There were no changes to the CEMS covered by this report in the 1st Quarter 2017. Enclosed are the Data Assessment Reports for the appropriate CEMs and information required by NSPS Subpart Ja, 40 CFR 60.108a(d). Subpart Ja root cause and corrective action analysis reports are included with this submittal. Updates to previously submitted Subpart Ja root cause and corrective action analysis reports are also included if corrective actions were completed in this reporting period.

Should you have any questions regarding this submission, please contact Mr. Justin Stubbe at (504) 271-4141.

I certify, based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete.

Regards,

Jack E. Merrill
Vice President & General Manager
Valero Refining – Meraux LLC

Enclosures
cc: Mr. Brian Tusa, LDEQ SE Regional Office, New Orleans, LA

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **SO_2**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: SO_2 corrected to 0% O_2 shall not exceed 250 ppm on a 12-hour rolling average

Monitor Manufacturer and Model No.: Brimstone SGX-231(SO_2)/Rosemount Oxymitter 4000(O_2)

Date of Latest CMS Certification or Audit: CGA on 1/23/17 (SO_2), 1/23/17 (O_2)

Process Unit(s) Description: #2 SRU Incinerator (EPN 1-93, EQT 0019)

Total source operating time in reporting period: 2,159 hours

Emissions Data Summary[1]	
1. Duration of excess emissions in reporting period due to:	*(hours)*
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	12
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	12
3. Total duration of excess emissions x (100) [Total source operating time][2]	0.6%

CMS Performance Summary[1]	
1. CMS downtime in reporting period due to:	*(hours)*
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	1
d. Other known causes	2
e. Unknown causes	0
2. Total CMS Downtime	3
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	0.1 %

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **SO_2**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: SO_2 corrected to 0% O_2 shall not exceed 250 ppm on a 12-hour rolling average.

Monitor Manufacturer and Model No.: Brimstone 991-CEM-X(SO_2)/ Rosemount Oxymitter 4000(O_2)

Date of Latest CMS Certification or Audit: CGA on 1/16/17 (SO_2), 1/16/17 (O_2)

Process Unit(s) Description: #3 SRU Incinerator (EPN 5-00, EQT 0079)

Total source operating time in reporting period: 2,156 hours

Emissions Data Summary[1]	
1. Duration of excess emissions in reporting period due to:	*(hours)*
a. Startup/shutdown	12
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	12
3. Total duration of excess emissions x (100) [Total source operating time][2]	0.6 %

CMS Performance Summary[1]	
1. CMS downtime in reporting period due to:	*(hours)*
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	23
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	23
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	1.1 %

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d))

Pollutant: **H_2S**

Applicable NSPS Subpart: J

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average

Monitor Manufacturer and Model No.: Ametek, #4661

Date of Latest CMS Certification or Audit: CGA on 1/13/17

Process Unit(s) Description: Area 1 Fuel Drum for Boiler TB-01 (EPN 1-06, EQT 0010), Boiler B-7 (EPN 1-07, EQT 0011), MDH Product and Fractionator Heaters (EPN 2-92, EQT 0033)

Total source operating time in reporting period: EQT 0010- 2,154 hours, EQT 0011- 2,152 hours, EQT 0033-2,159 hours

Emissions Data Summary[1]			
1. Duration of excess emissions in reporting period due to:	*EQT 0010 (hours)*	*EQT 0011 (hours)*	*EQT 0033 (hours)*
a. Startup/shutdown	0	0	0
b. Control equipment problems	0	0	0
c. Process problems	0	0	0
d. Other known causes	0	0	0
e. Unknown causes	0	0	0
2. Total duration of excess emission	0	0	0
3. Total duration of excess emissions x (100) [Total source operating time][2]	0.0 %	0.0 %	0.0 %

CMS Performance Summary[1]			
1. CMS downtime in reporting period due to:	*EQT 0010 (hours)*	*EQT 0011 (hours)*	*EQT 0033 (hours)*
a. Monitor equipment malfunctions	0	0	0
b. Non-Monitor equipment malfunctions	0	0	0
c. Quality assurance calibration	1	1	0
d. Other known causes	0	0	0
e. Unknown causes	0	0	0
2. Total CMS Downtime	1	1	0
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	0.0 %	0.0 %	0.0 %

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted. (Percentage based on the lowest operating time.)

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d))

Pollutant: **H_2S**

Applicable NSPS Subpart: J

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Subpart J: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 2/2/17

Process Unit(s) Description: Area 2 Fuel Drum for: Vacuum Heater (EPN 1-76, EQT 0013); No.1 Crude Heater (EPN 12-72A, EQT 0022); NHT Charge Heater (EPN 14-72, EQT 0023); NHT Debut Reboiler (EPN 15-72, EQT 0024); NHT Depent Reboiler (EPN 16-72 EQT 0027); Platformer Charge Heater (EPN 17-72 a,b,c , EQT 0028); Platformer Debut Reboiler (EPN 19-72, EQT 0029); DHT Charge Heater (EPN 5-73, EQT 0058); ROSE Heater (EPN 1-80, EQT 0014)

Total source operating time in reporting period: EQT 0013-2,159 hours; EQT 0022-2,159 hours; EQT 0023-1,386 hours; EQT 0024-1,381 hours; EQT 0027-1,394 hours; EQT 0028-1,399 hours; EQT 0029-1,337 hours; EQT 0058 – 2,127 hours; EQT 0014 - 2,159 hours

Emissions Data Summary[1]			
1. Duration of excess emissions in reporting period due to:	*EQT's 0013, 0014, 0022*	*EQT 0027*	*EQT's 0023, 0024, 0028, 0029, 0058*
a. Startup/shutdown	0	0	0
b. Control equipment problems	0	0	0
c. Process problems	10	10	0
d. Other known causes	0	0	0
e. Unknown causes	0	0	0
2. Total duration of excess emission	10	10	0
3. Total duration of excess emissions x (100) [Total source operating time][2]	0.5 %	0.7%	0.0%

CMS Performance Summary[1]		
1. CMS downtime in reporting period due to:	*EQT's 0013, 0014, 0022, 0058*	*EQT's 0023, 0024, 0027, 0028, 0029*
a. Monitor equipment malfunctions	0	0
b. Non-Monitor equipment malfunctions	0	0
c. Quality assurance calibration	4	0
d. Other known causes	0	0
e. Unknown causes	0	0
2. Total CMS Downtime	4	0
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	0.5 %	0.0 %

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **H_2S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Subpart Ja: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average and 60 ppm on a 365 day rolling average.

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 2/2/17

Process Unit(s) Description: Area 2 Fuel Drum for Benzene Recovery Unit Reboiler (EPN 1-09, EQT 0127)

Total source operating time in reporting period: 1,318 hours

Emissions Data Summary[1]	
1. Duration of excess emissions in reporting period due to:	*(hours)*
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time][2]	0.0%

CMS Performance Summary[1]	
1. CMS downtime in reporting period due to:	*(hours)*
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	0
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	0.0 %

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d))

Pollutant: **H_2S**

Applicable NSPS Subpart: J

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 1/30/17

Process Unit(s) Description: Area 4 Fuel Drum for Merox Disulfide Separator to Platformer Charge Heater

Total source operating time in reporting period: 1,354 hours

Emissions Data Summary[1]	
1. Duration of excess emissions in reporting period due to:	*(hours)*
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time][2]	0.0 %

CMS Performance Summary[1]	
1. CMS downtime in reporting period due to:	*(hours)*
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	1
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	1
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	0.1 %

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d))

Pollutant: **H_2S**

Applicable NSPS Subpart: J

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 2/9/17

Process Unit(s) Description: Area 6 Fuel Drum for Hydrocracker & Hydrotreater Charge Heaters (EPN 1-00, EQT 0009)

Total source operating time in reporting period: 2,156 hours

Emissions Data Summary[1]	
1. Duration of excess emissions in reporting period due to:	*(hours)*
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	8
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	8
3. Total duration of excess emissions x (100) [Total source operating time][2]	0.4 %

CMS Performance Summary[1]	
1. CMS downtime in reporting period due to:	*(hours)*
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	1
d. Other known causes	25
e. Unknown causes	0
2. Total CMS Downtime	26
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	1.2 %

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d))

Pollutant: **H_2S**

Applicable NSPS Subpart: J

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 1/17/17

Process Unit(s) Description: Area 6 Fuel Drum for Boiler B-5 (EPN 2-00, EQT 0030) and Boiler B-6 (EPN 3-00, EQT 0048)

Total source operating time in reporting period: EQT 0030-2,120 hours; EQT 0048-2,135 hours

Emissions Data Summary[1]		
1. Duration of excess emissions in reporting period due to:	*EQT 0030 (hours)*	*EQT 0048 (hours)*
a. Startup/shutdown	0	0
b. Control equipment problems	0	0
c. Process problems	9	9
d. Other known causes	0	0
e. Unknown causes	0	0
2. Total duration of excess emission	9	9
3. Total duration of excess emissions x (100) [Total source operating time][2]	0.4 %	0.4 %

CMS Performance Summary[1]		
1. CMS downtime in reporting period due to:	*EQT 0030 (hours)*	*EQT 0048 (hours)*
a. Monitor equipment malfunctions	0	0
b. Non-Monitor equipment malfunctions	0	0
c. Quality assurance calibration	2	2
d. Other known causes	0	0
e. Unknown causes	0	0
2. Total CMS Downtime	2	2
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	0.1 %	0.1 %

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d))

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Nitrogen Oxide shall not exceed 0.1 pound/MMBtu on a 30-day rolling average.

Monitor Manufacturer and Model No.: ABB Limas11(NOx), Magnos27 (O_2)

Date of Latest CMS Certification or Audit: CGA on 1/19/17 (NOx), 1/18/17 (O_2)

Process Unit(s) Description: Boiler B-5 (EPN 2-00, EQT 0030)

Total source operating time in reporting period: 2,120 hours

Emissions Data Summary[1]	
1. Duration of excess emissions in reporting period due to:	*(hours)*
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time][2]	0.0 %

CMS Performance Summary[1]	
1. CMS downtime in reporting period due to:	*(hours)*
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	2
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	2
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	0.1%

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d))

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Nitrogen Oxide shall not exceed 0.1 pound/MMBtu on a 30-day rolling average.

Monitor Manufacturer and Model No.: ABB Limas11(NOx), Magnos27 (O_2)

Date of Latest CMS Certification or Audit: CGA on 1/19/17 (NOx), 1/19/17 (O_2)

Process Unit(s) Description: Boiler B-6 (EPN 3-00, EQT 0048)

Total source operating time in reporting period: 2,135 hours

Emissions Data Summary[1]	
1. Duration of excess emissions in reporting period due to:	*(hours)*
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time][2]	0.0 %

CMS Performance Summary[1]	
1. CMS downtime in reporting period due to:	*(hours)*
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	1
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	1
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	0.0%

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d))

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Nitrogen Oxide shall not exceed 0.1 pound/MMBtu on a 30-day rolling average.

Monitor Manufacturer and Model No.: Thermo Environmental 42i (NOx)/(O_2)

Date of Latest CMS Certification or Audit: CGA on 10/28/16 (NOx), 10/19/16 (O_2)

Process Unit(s) Description: Boiler TB-01 (EPN 1-06, EQT 0010)

Total source operating time in reporting period: 2,154 hours

Emissions Data Summary[1]	
1. Duration of excess emissions in reporting period due to:	*(hours)*
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time][2]	0.0 %

CMS Performance Summary[1]	
1. CMS downtime in reporting period due to:	*(hours)*
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	2
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	2
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	0.1 %

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Nitrogen Oxide corrected to 0% O_2 shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: Thermo Environmental 42i (NOx)/(O_2)

Date of Latest CMS Certification or Audit: CGA on 2/4/17 (NOx), 2/4/17 (O_2)

Process Unit(s) Description: Benzene Recovery Unit Reboiler (EPN 1-09, EQT 0127)

Total source operating time in reporting period: 1,318 hours

Emissions Data Summary[1]	
1. Duration of excess emissions in reporting period due to:	*(hours)*
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time][2]	0.0 %

CMS Performance Summary[1]	
1. CMS downtime in reporting period due to:	*(hours)*
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	0
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	0.0 %

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **NO_x**

Applicable NSPS Subpart: N/A (Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 36.a)

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: ABB Limas11(NOx), Magnos27 (O_2)

Date of Latest CMS Certification or Audit: CGA on 2/6/17 (NOx), 2/6/17 (O_2)

Process Unit(s) Description: No.1 Crude Heater (EPN 12-72A, EQT 0022)

Total source operating time in reporting period: 2,159 hours

Emissions Data Summary[1]	
1. Duration of excess emissions in reporting period due to:	*(hours)*
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time][2]	0.0 %

CMS Performance Summary[1]	
1. CMS downtime in reporting period due to:	*(hours)*
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	1
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	1
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	0.0 %

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **H_2S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 3/20/17

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), North Flare Header

Total source operating time in reporting period: 2,159 hours

Emissions Data Summary[1]	
1. Duration of excess emissions in reporting period due to:	*(hours)*
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time][2]	0.0 %

CMS Performance Summary[1]	
1. CMS downtime in reporting period due to:	*(hours)*
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	2
d. Other known causes	25
e. Unknown causes	0
2. Total CMS Downtime	27
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	1.3%

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **H_2S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 3/20/17

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), Hydrocracker Flare Header

Total source operating time in reporting period: 2,159 hours

Emissions Data Summary[1]	
1. Duration of excess emissions in reporting period due to:	*(hours)*
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time][2]	0.0 %

CMS Performance Summary[1]	
1. CMS downtime in reporting period due to:	*(hours)*
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	2
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	2
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	0.1 %

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **H_2S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 3/20/17

Process Unit(s) Description: South Flare Stack (EPN 3-77, EQT 0049)

Total source operating time in reporting period: 2,159 hours

Emissions Data Summary[1]	
1. Duration of excess emissions in reporting period due to:	*(hours)*
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time][2]	0.0 %

CMS Performance Summary[1]	
1. CMS downtime in reporting period due to:	*(hours)*
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	2
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	2
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	0.1 %

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **Total Sulfur**

Applicable NSPS Subpart: Ja (Also Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 1/26/17

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), North Flare Header

Total source operating time in reporting period: 2,159 hours

Emissions Data Summary[1]	
1. Duration of excess emissions in reporting period due to:	*(hours)*
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time][2]	0.0 %

CMS Performance Summary[1]	
1. CMS downtime in reporting period due to:	*(hours)*
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	10
d. Other known causes	12
e. Unknown causes	0
2. Total CMS Downtime	22
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	1.0%

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **Total Sulfur**

Applicable NSPS Subpart: Ja (Also Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 1/26/17

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), Hydrocracker Flare Header

Total source operating time in reporting period: 2,159 hours

Emissions Data Summary[1]	
1. Duration of excess emissions in reporting period due to:	*(hours)*
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time][2]	0.0 %

CMS Performance Summary[1]	
1. CMS downtime in reporting period due to:	*(hours)*
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	15
d. Other known causes	8
e. Unknown causes	0
2. Total CMS Downtime	23
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	1.1 %

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **Total Sulfur**

Applicable NSPS Subpart: Ja (Also Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 1/26/17

Process Unit(s) Description: South Flare Stack (EPN 3-77, EQT 0049)

Total source operating time in reporting period: 2,159 hours

Emissions Data Summary[1]	
1. Duration of excess emissions in reporting period due to:	*(hours)*
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time][2]	0.0 %

CMS Performance Summary[1]	
1. CMS downtime in reporting period due to:	*(hours)*
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	8
d. Other known causes	28
e. Unknown causes	0
2. Total CMS Downtime	36
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	1.7 %

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **Flow**

Applicable NSPS Subpart: Ja (Also Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), North Flare Header

Total source operating time in reporting period: 2,159 hours

Emissions Data Summary[1]	
1. Duration of excess emissions in reporting period due to:	*(hours)*
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time][2]	0.0 %

CMS Performance Summary[1]	
1. CMS downtime in reporting period due to:	*(hours)*
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	5
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	5
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	0.2 %

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **Flow**

Applicable NSPS Subpart: Ja (Also Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), Hydrocracker Flare Header

Total source operating time in reporting period: 2,159 hours

Emissions Data Summary[1]	
1. Duration of excess emissions in reporting period due to:	*(hours)*
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time][2]	0.0 %

CMS Performance Summary[1]	
1. CMS downtime in reporting period due to:	*(hours)*
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	0
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	0.0 %

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **Flow**

Applicable NSPS Subpart: Ja (Also Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

Process Unit(s) Description: South Flare Stack (EPN 3-77, EQT 0049)

Total source operating time in reporting period: 2,159 hours

Emissions Data Summary[1]	
1. Duration of excess emissions in reporting period due to:	*(hours)*
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time][2]	0.0 %

CMS Performance Summary[1]	
1. CMS downtime in reporting period due to:	*(hours)*
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	0
3. Total duration of CMS Downtime x (100) [Total source operating time][2]	0.0 %

[1] For opacity, record all times in minutes. For gases, record all times in hours.

[2] For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **SO_2**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: SO_2 corrected to 0% O_2 shall not exceed 250 ppm on a 12-hour rolling average

Monitor Manufacturer and Model No.: Brimstone SGX-231(SO_2)/Rosemount Oxymitter 4000(O_2)

Date of Latest CMS Certification or Audit: CGA on 1/23/17 (SO_2), 1/23/17 (O_2)

Process Unit(s) Description: #2 SRU Incinerator (EPN 1-93, EQT 0019)

Total source operating time in reporting period: 2,159 hours

Ja EXCESS EMISSIONS						
Date	Start	End	Duration (hours)	Max 12-HRA (ppm)	Cause	Corrective Action
2/14/17	07:00	19:00	12	>500	SO_2 at 0% O_2 greater than 250 ppm, 12-HRA, with SO_2 emissions less than 500 lbs/day above the allowable limit due to unit upset during a refinery wide steam system upset. For causes and corrective actions, see the root cause and corrective action analysis dated 2/13/17 in Appendix B of this report.	
TOTAL			12			

Ja CMS PERFORMANCE[1]					
Date	Start	End	Duration (hours)	Cause	Corrective Action
1/20/17	10:00	11:00	1	Offline to clean analyzer internals.	N/A
1/23/17	09:00	10:00	1	SO_2 and O_2 Cylinder Gas Audits.	N/A
2/4/17	13:00	14:00	1	Replaced SO2 Lamp.	N/A
TOTAL			3		

[1]In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **SO_2**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: SO_2 corrected to 0% O_2 shall not exceed 250 ppm on a 12-hour rolling average.

Monitor Manufacturer and Model No.: Brimstone 991-CEM-X(SO_2)/ Rosemount Oxymitter 4000(O_2)

Date of Latest CMS Certification or Audit: CGA on 1/16/17 (SO_2), 1/16/17 (O_2)

Process Unit(s) Description: #3 SRU Incinerator (EPN 5-00, EQT 0079)

Total source operating time in reporting period: 2,156 hours

Ja EXCESS EMISSIONS						
Date	Start	End	Duration (hours)	Max 12-HRA (ppm)	Cause	Corrective Action
2/14/17	08:00	20:00	12	>500	SO_2 at 0% O_2 greater than 250 ppm, 12-HRA, with SO_2 emissions less than 500 lbs/day above the allowable limit due to unit shutdown and subsequent start up due to a refinery wide steam system upset. For causes and corrective actions, see the root cause and corrective action analysis dated 2/13/17 in Appendix B of this report.	
TOTAL			12			

Ja CMS PERFORMANCE[1]					
Date	Start	End	Duration (hours)	**Cause**	Corrective Action
1/16/17	10:00	11:00	1	SO_2 Cylinder Gas Audit.	N/A
1/16/17	13:00	14:00	1	O_2 Cylinder Gas Audit.	N/A
2/22/17	11:00		21	Replaced SO2 lamp on 2/22. Out of Control on 2/23.	Valero re-calibrated the analyzer on 2/23 at 08:00.
2/23/17		08:00			
TOTAL			23		

[1]In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **H_2S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average and 60 ppm on a 365 day rolling average

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 2/2/17

Process Unit(s) Description: Area 2 Fuel Drum for Benzene Recovery Unit Reboiler (EPN 1-09, EQT 0127)

Total source operating time in reporting period: 1,318 hours

Ja EXCESS EMISSIONS						
Date	Start	End	Duration (hours)	Max 3-HRA (ppm)	Cause	Corrective Action
None						
TOTAL			0			

Ja CMS PERFORMANCE[1]					
Date	Start	End	Duration (hours)	Cause	Corrective Action
None					
TOTAL			0		

[1]In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Nitrogen Oxide corrected to 0% O_2 shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: Thermo Environmental 42i $(NOx)/(O_2)$

Date of Latest CMS Certification or Audit: CGA on 2/4/17 (NOx), 2/4/17 (O_2)

Process Unit(s) Description: Benzene Recovery Unit Reboiler (EPN 1-09, EQT 0127)

Total source operating time in reporting period: 1,318 hours

Ja EXCESS EMISSIONS						
Date	Start	End	Duration (hours)	Max 30-DRA (ppm)	Cause	Corrective Action
None						
TOTAL			0			

Ja CMS PERFORMANCE[1]					
Date	Start	End	Duration (hours)	Cause	Corrective Action
None					
TOTAL			0		

[1] In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **H_2S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 3/20/17

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), North Flare Header

Total source operating time in reporting period: 2,159 hours

Ja EXCESS EMISSIONS						
Date	Start	End	Duration (hours)	Max 3-HRA (ppm)	Cause	Corrective Action
None						
TOTAL			0			

Ja CMS PERFORMANCE[2]					
Date	Start	End	Duration (hours)	Cause	Corrective Action
1/8/17	12:00		25	Analyzer shutdown due to a blown fuse.	Valero replaced the fuse and returned the analyzer to service.
1/9/17		13:00			
3/20/17	10:00	11:00	1	Cylinder Gas Audit	N/A
3/20/17	14:00	15:00	1	Replaced span gas bottle and calibrated.	N/A
TOTAL			27		

[1]Due to the physical arrangement of the headers supplying the North Flare Stack (EPN 20-72, EQT 0035), two analyzers are required to measure H_2S concentration of the gas combusted in the North Flare. Conservatively, excess emission on either of these analyzers will be considered excess emissions at the North Flare. However, the CEMS performance will be tracked separately.

[2]In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **H_2S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 3/20/17

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), Hydrocracker Flare Header

Total source operating time in reporting period: 2,159 hours

Ja EXCESS EMISSIONS						
Date	Start	End	Duration (hours)	Max 3-HRA (ppm)	Cause	Corrective Action
None						
TOTAL			0			

Ja CMS PERFORMANCE[2]					
Date	Start	End	Duration (hours)	Cause	Corrective Action
3/20/17	14:00	16:00	2	Cylinder Gas Audit.	N/A
TOTAL			2		

[1]Due to the physical arrangement of the headers supplying the North Flare Stack (EPN 20-72, EQT 0035), two analyzers are required to measure H_2S concentration of the gas combusted in the North Flare. Conservatively, excess emission on either of these analyzers will be considered excess emissions at the North Flare. However, the CEMS performance will be tracked separately.

[2] In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **H_2S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 3/20/17

Process Unit(s) Description: South Flare Stack (EPN 3-77, EQT 0049)

Total source operating time in reporting period: 2,159 hours

Ja EXCESS EMISSIONS						
Date	Start	End	Duration (hours)	Max 3-HRA (ppm)	Cause	Corrective Action
None.						
TOTAL			0			

Ja CMS PERFORMANCE[1]					
Date	Start	End	Duration (hours)	Cause	Corrective Action
3/20/17	11:00	11:00	1	Cylinder Gas Audit.	N/A
3/21/17	09:00	10:00	1	Adjusted for calibration drift.	Calibrated and returned to service.
TOTAL			2		

[1] In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **Total Sulfur**

Applicable NSPS Subpart: Ja (Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 1/26/17

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), North Flare Header

Total source operating time in reporting period: 2,159 hours

Ja CMS PERFORMANCE[1]					
Date	Start	End	Duration (hours)	Cause	Corrective Action
1/7/17	13:00	15:00	2	Adjusted for calibration drift.	Calibrated and returned to service.
1/12/17	08:00	10:00	2	Shutdown to repair a valve actuator.	Calibrated and returned to service.
1/26/17	08:00	09:00	1	Cylinder Gas Audit.	N/A
3/7/17	09:00	21:00	12	Analyzer shutdown for annual preventative maintenance by a manufacturer technician.	Calibrated and returned to service.
3/8/17	12:00	13:00	1	Adjusted for calibration drift.	Calibrated and returned to service.
3/9/17	09:00	10:00	1	Adjusted for calibration drift.	Calibrated and returned to service.
3/10/17	08:00	09:00	1	Adjusted for calibration drift.	Calibrated and returned to service.
3/13/17	15:00	16:00	1	Adjusted for calibration drift.	Calibrated and returned to service.
3/22/17	13:00	14:00	1	Adjusted for calibration drift.	Calibrated and returned to service.
TOTAL			22		

[1] In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **Total Sulfur**

Applicable NSPS Subpart: Ja (Also Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 1/26/17

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), Hydrocracker Flare Header

Total source operating time in reporting period: 2,159 hours

Ja CMS PERFORMANCE[1]					
Date	Start	End	Duration (hours)	Cause	Corrective Action
1/7/17	02:00	15:00	13	Analyzer offline due low carrier gas flow.	Valero adjusted the pressure regulators that control carrier gas flow, then calibrated the analyzer and returned it to service.
1/26/17	08:00	09:00	1	Cylinder Gas Audit.	N/A
3/8/17	08:00	16:00	8	Analyzer shutdown for annual preventative maintenance by a manufacturer technician.	Calibrated and returned to service.
3/9/17	09:00	10:00	1	Adjusted for calibration drift.	Calibrated and returned to service.
TOTAL			23		

[1] In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **Total Sulfur**

Applicable NSPS Subpart: Ja (Also Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 1/26/17

Process Unit(s) Description: South Flare Stack (EPN 3-77, EQT 0049)

Total source operating time in reporting period: 2,159 hours

Ja CMS PERFORMANCE[1]					
Date	Start	End	Duration (hours)	Cause	Corrective Action
1/26/17	08:00	09:00	1	Cylinder Gas Audit.	N/A
3/2/17	09:00	10:00	1	Adjusted for calibration drift.	Calibrated and returned to service.
3/3/17	09:00	10:00	1	Adjusted for calibration drift.	Calibrated and returned to service.
3/6/17	10:00	11:00	1	Adjusted for calibration drift.	Calibrated and returned to service.
3/7/17	09:00		28	Analyzer shutdown for annual preventative maintenance by a manufacturer technician. After 1st returning the analyzer to service, a leak caused elevated H_2S in the analyzer building. Valero searched for the leak until late on 3/7, then left for the night and continued the next day.	Valero located the leak and repaired it. The analyzer was calibrated and returned to service.
3/8/17		13:00			
3/9/17	09:00	10:00	1	Adjusted for calibration drift.	Calibrated and returned to service.
3/11/17	11:00	13:00	2	Adjusted for calibration drift.	Calibrated and returned to service.
3/22/17	13:00	14:00	1	Adjusted for calibration drift.	Calibrated and returned to service.
TOTAL			36		

[1] In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **Flow**

Applicable NSPS Subpart: Ja (Also Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), North Flare Header

Total source operating time in reporting period: 2,159 hours

Ja CMS PERFORMANCE[1]					
Date	Start	End	Duration (hours)	Cause	Corrective Action
2/24/17	10:00	15:00	5	Shutdown for annual preventative maintenance and verification by a manufacturer technician.	Returned to service.
TOTAL			5		

[1] In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **Flow**

Applicable NSPS Subpart: Ja (Also Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), Hydrocracker Flare Header

Total source operating time in reporting period: 2,159 hours

Ja CMS PERFORMANCE[1]					
Date	Start	End	Duration (hours)	Cause	Corrective Action
None					
TOTAL			0		

[1] In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **Flow**

Applicable NSPS Subpart: Ja (Also Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

Process Unit(s) Description: South Flare Stack (EPN 3-77, EQT 0049)

Total source operating time in reporting period: 2,159 hours

Ja CMS PERFORMANCE[1]					
Date	Start	End	Duration (hours)	Cause	Corrective Action
None					
TOTAL			0		

[1] In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **SO_2**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: SO_2 corrected to 0% O_2 shall not exceed 250 ppm on a 12-hour rolling average.

Monitor Manufacturer and Model No.: Brimstone SGX-231(SO_2)/Rosemount Oxymitter 4000(O_2)

Source unit: #2 SRU Incinerator (EPN 1-93, EQT 0019)

CEM Sampling Location: #2 SRU Incinerator (#1-93)

CEM Span Value: Sulfur Dioxide 500 ppm; Oxygen 25%

I. ACCURACY ASSESSMENT RESULTS (CGA):

	SO_2 #1 (low scale)	SO_2 #2 (high scale)	O_2 #1 (low scale)	O_2 #2 (high scale)
Date of Audit	1/23/17	1/23/17	1/23/17	1/23/17
Audit Gas Cylinder No.	SG9150051BAL	CC125741	CC483689	SG9152263BAL
Date of Audit Gas Cert.	5/27/16	5/27/16	5/23/16	5/23/16
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	124.9 ppmv	274.5 ppmv	5.99 vol %	10.05 vol %
CEM Response Value	121.0 ppmv	264.0 ppmv	5.90 vol %	9.80 vol %
Accuracy	3.1%	3.8%	1.5%	2.5%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out-of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **SO_2**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: SO_2 corrected to 0% O_2 shall not exceed 250 ppm on a 12-hour rolling average.

Monitor Manufacturer and Model No.: Brimstone 991-CEM-X (SO_2), Rosemount Oxymitter 4000 (O_2)

Source unit: #3 SRU Incinerator (EPN 5-00, EQT 0079)

CEM Sampling Location: #3 SRU Incinerator (#5-00)

CEM Span Value: Sulfur Dioxide 500 ppm; Oxygen 25%

I. ACCURACY ASSESSMENT RESULTS (CGA):

	SO_2 #1 (low scale)	SO_2 #2 (high scale)	O_2 #1 (low scale)	O_2 #2 (high scale)
Date of Audit	1/16/17	1/16/17	1/16/17	1/16/17
Audit Gas Cylinder No.	XC022957B	CC94008	CC483694	EB0063979
Date of Audit Gas Cert.	5/27/16	5/27/16	5/23/16	5/23/16
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	125.3 ppmv	275.3 ppmv	5.99 vol %	10.00 vol %
CEM Response Value	135.0 ppmv	280.0 ppmv	5.27 vol %	9.38 vol %
Accuracy	7.7%	1.7%	11.9%	6.2%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out-of Control Periods:

1. Dates: 2/22/17, 11:00 – 2/23/17, 08:00 – 21 hours

2. Number of Days 0.9 (21 hours)

B. Corrective Actions: On 2/22/17, Valero replaced the SO_2 lamp. The analyzer drifted downward out of calibration and for the next day's calibration drift check the SO_2 span and zero were both >4x the Appendix B limits from the calibration gas. Valero calibrated the analyzer on 2/23/17 and the downward drift of the new SO2 lamp did not reoccur.

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Polluant: **H_2S**

Applicable NSPS Subpart: J

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 4661

Source Unit: Area 1 Fuel Drum for Boiler TB-01 (EPN 1-06, EQT 0010)

CEM Sampling Location: Area 1 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H_2S #1 (low scale)	H_2S #2 (high scale)
Date of Audit	1/13/17	1/13/17
Audit Gas Cylinder No.	CC34939B	CC26703
Date of Audit Gas Cert.	5/23/16	5/27/16
Type of Certification	EPA Protocol 1	EPA Protocol 1
Certified Audit Value (ppmv)	76.0	175.3
CEM Response Value (ppmv)	75.0	177.3
Accuracy	1.3%	1.1%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out-of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **H_2S**

Applicable NSPS Subpart: J and Ja (Benzene Recovery Unit Reboiler Subject to Ja)

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average(J and Ja) and 60 ppm on a 365 day rolling average (Ja only)

Monitor Manufacturer and Model No.: Ametek 4661

Source Unit: Area 2 Fuel Drum for: MDH Product and Fractionator Heaters (EPN 2-92, EQT 0033); No.1 Crude Heater (EPN 12-72A, EQT 022); ROSE Heater (EPN 1-80, EQT 0014); Vacuum Heater (EPN 1-76, EQT 0013); Platformer Charge Heater (EPN 17-72 a,b,c , EQT 0028); Platformer Debut Reboiler (EPN 19-72, EQT 0029); NHT Charge Heater (EPN 14-72, EQT 0023); NHT Debut Reboiler (EPA 15-72, EQT 0024); NHT Depent Reboiler (EPA 16-72, EQT 0027); DHT Charge Heater (EPN 5-73, EQT 0058); Benzene Recovery Unit Reboiler (EPN 1-09, EQT 0127)

CEM Sampling Location: Area 2 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H_2S #1 (low scale)	H_2S #2 (high scale)
Date of Audit	2/2/17	2/2/17
Audit Gas Cylinder No.	EB0062585	CC41503
Date of Audit Gas Cert.	5/23/16	5/27/16
Type of Certification	EPA Protocol 1	EPA Protocol 1
Certified Audit Value (ppmv)	76.7	176.4
CEM Response Value (ppmv)	77.3	175.0
Accuracy	0.8%	0.8%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out-of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **H_2S**

Applicable NSPS Subpart: J

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 4661

Process Unit(s) Description: Area 4 Fuel Drum for Merox Disulfide Separator to Platformer Charge Heater

CEM Sampling Location: Area 4 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H_2S #1 (low scale)	H_2S #2 (high scale)
Date of Audit	1/30/17	1/30/17
Audit Gas Cylinder No.	CC467104	CC91595
Date of Audit Gas Cert.	5/23/16	5/27/16
Type of Certification	EPA Protocol 1	EPA Protocol 1
Certified Audit Value (ppmv)	78.0	169.9
CEM Response Value (ppmv)	76.7	166.7
Accuracy	1.7%	1.9%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out-of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **H_2S**

Applicable NSPS Subpart: J

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 4661

Process Unit(s) Description: Area 6 Fuel Drum for Hydrocracker & Hydrotreater Charge Heaters (EPN 1-00, EQT 0009)

CEM Sampling Location: Area 6 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H_2S #1 (low scale)	H_2S #2 (high scale)
Date of Audit	2/9/17	2/9/17
Audit Gas Cylinder No.	CC182529	CC52088
Date of Audit Gas Cert.	5/23/16	5/27/16
Type of Certification	EPA Protocol 1	EPA Protocol 1
Certified Audit Value (ppmv)	78.4	166.7
CEM Response Value (ppmv)	76.4	160.7
Accuracy	2.5%	3.6%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out-of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **H_2S**

Applicable NSPS Subpart: J

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 4661

Process Unit(s) Description: Area 6 Fuel Drum for Boilers B-5 (EPN 2-00, EQT 0030) and B-6 (EPN 3-00, EQT 0048)

CEM Sampling Location: Area 6 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H_2S #1 (low scale)	H_2S #2 (high scale)
Date of Audit	1/17/17	1/17/17
Audit Gas Cylinder No.	CC421903	CC111958
Date of Audit Gas Cert.	5/23/16	5/27/16
Type of Certification	EPA Protocol 1	EPA Protocol 1
Certified Audit Value (ppmv)	78.1	171.5
CEM Response Value (ppmv)	70.2	153.0
Accuracy	10.2%	10.8%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out-of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Nitrogen Oxide shall not exceed 0.1 pound/MMBtu on a 30-day rolling average.

Monitor Manufacturer and Model No.: ABB Limas11(NOx), Magnos27 (O_2)

Process Unit(s) Description: Boiler B-5 (EPN 2-00, EQT 0030)

CEM Sampling Location: Boiler B-5

CEM Span Value: Nitrogen Oxide 100 ppm, Oxygen 25 %

I. ACCURACY ASSESSMENT RESULTS (CGA):

	NOx #1 (low scale)	NOx #2 (high scale)	O_2 #1 (low scale)	O_2 #2 (high scale)
Date of Audit	1/19/17	1/19/17	1/18/17	1/18/17
Audit Gas Cylinder No.	LL165998	LL64747	LL53418	LL167062
Date of Audit Gas Cert.	2/4/15	5/3/16	1/28/14	1/28/14
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	24.7 ppmv	54.5 ppmv	6.01 vol %	10.01 vol %
CEM Response Value	25.7 ppmv	54.4 ppmv	6.02 vol %	10.04 vol %
Accuracy	4.1%	0.1%	0.2%	0.3%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out-of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Nitrogen Oxide shall not exceed 0.1 pound/MMBtu on a 30-day rolling average.

Monitor Manufacturer and Model No.: ABB Limas11(NOx), Magnos27 (O_2)

Process Unit(s) Description: Boiler B-6 (EPN 3-00, EQT 0048)

CEM Sampling Location: Boiler B-6

CEM Span Value: Nitrogen Oxide 100 ppm, Oxygen 25 %

I. ACCURACY ASSESSMENT RESULTS (CGA):

	NOx #1 (low scale)	NOx #2 (high scale)	O_2 #1 (low scale)	O_2 #2 (high scale)
Date of Audit	1/19/17	1/19/17	1/19/17	1/19/17
Audit Gas Cylinder No.	LL165998	LL64747	LL53418	LL167062
Date of Audit Gas Cert.	2/4/15	5/3/16	1/28/14	1/28/14
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	24.7 ppmv	54.5 ppmv	6.01 vol %	10.01 vol %
CEM Response Value	25.7 ppmv	54.7 ppmv	5.97 vol %	9.99 vol %
Accuracy	4.1%	0.4%	0.7%	0.2%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out-of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Nitrogen Oxide shall not exceed 0.1 pound/MMBtu on a 30-day rolling average.

Monitor Manufacturer and Model No.: Thermo Environmental Model 42i (NOx)/(O_2)

Process Unit(s) Description: Boiler TB-01 (EPN 1-06, EQT 0010)

CEM Sampling Location: Boiler TB-01

CEM Span Value: Nitrogen Oxide 500 ppm, Oxygen 25 %

I. ACCURACY ASSESSMENT RESULTS (CGA):

	NOx #1 (low scale)	NOx #2 (high scale)	O_2 #1 (low scale)	O_2 #2 (high scale)
Date of Audit	1/16/17	1/16/17	1/17/17	1/17/17
Audit Gas Cylinder No.	SG9167966	CC89303	LL269	LL168197
Date of Audit Gas Cert.	5/31/16	2/11/14	4/26/16	4/25/16
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	126.9 ppmv	270.5 ppmv	6.00 vol %	10.10 vol %
CEM Response Value	127.5 ppmv	270.3 ppmv	5.83 vol %	9.87 vol %
Accuracy	0.5%	0.1%	2.8%	2.3%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out-of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Nitrogen Oxide corrected to 0% O_2 shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: Thermo Environmental Model 42i (NOx)/(O_2)

Process Unit(s) Description: Benzene Recovery Unit Reboiler (EPN 1-09, EQT 0127)

CEM Sampling Location: Benzene Recovery Unit Reboiler

CEM Span Value: Nitrogen Oxide 100 ppm, Oxygen 25 %

I. ACCURACY ASSESSMENT RESULTS (CGA):

CGA	NOx #1 (low scale)	NOx #2 (high scale)	O_2 #1 (low scale)	O_2 #2 (high scale)
Date of Audit	2/4/17	2/4/17	2/4/17	2/4/17
Audit Gas Cylinder No.	CC430476	CC307733	CC483658	CC87078
Date of Audit Gas Cert.	6/2/16	6/2/16	5/23/16	5/23/16
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	25.0 ppmv	55.8 ppmv	5.96 vol %	9.94 vol %
CEM Response Value	24.4 ppmv	54.7 ppmv	5.67 vol %	9.67 vol %
Accuracy	2.3%	2.0%	4.9%	2.7%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out-of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **NO_x**

Applicable NSPS Subpart: N/A (Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 36.a)

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Nitrogen Oxide corrected to 0% O_2 shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: Thermo Environmental Model 42i (NOx)/(O_2)

Process Unit(s) Description: No.1 Crude Heater (EPN 12-72A, EQT 0022)

CEM Sampling Location: No.1 Crude Heater

CEM Span Value: Nitrogen Oxide 100 ppm, Oxygen 25 %

I. ACCURACY ASSESSMENT RESULTS (CGA):

CGA	NOx #1 (low scale)	NOx #2 (high scale)	O_2 #1 (low scale)	O_2 #2 (high scale)
Date of Audit	2/6/17	2/6/17	2/6/17	2/6/17
Audit Gas Cylinder No.	LL178685	CC319153	CC483658	CC222165
Date of Audit Gas Cert.	5/2/16	6/2/16	5/23/16	5/23/16
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	24.7 ppmv	55.4 ppmv	5.99 vol %	9.96 vol %
CEM Response Value	26.5 ppmv	58.8 ppmv	5.91 vol %	9.97 vol %
Accuracy	7.5%	6.1%	1.3%	0.1%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out-of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **H_2S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 5100

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), North Flare Header

CEM Sampling Location: North Flare Stack, North Flare Header (Y-AT-801)

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H_2S #1 (low scale)	H_2S #2 (high scale)
Date of Audit	3/20/17	3/20/17
Audit Gas Cylinder No.	CC441826	CC288207
Date of Audit Gas Cert.	10/3/16	10/4/16
Type of Certification	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	79.1 ppmv	177.3 ppmv
CEM Response Value	83.3 ppmv	184.7 ppmv
Accuracy	5.3%	4.2%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out-of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **H_2S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 5100

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), Hydrocracker Flare Header

CEM Sampling Location: North Flare Stack, Hydrocracker Flare Header (Y-AT-800)

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H_2S #1 (low scale)	H_2S #2 (high scale)
Date of Audit	3/20/17	3/20/17
Audit Gas Cylinder No.	CC441826	CC288207
Date of Audit Gas Cert.	10/3/16	10/4/16
Type of Certification	EPA Protocol 1	EPA Protocol 1
Certified Audit Value (ppmv)	79.1 ppmv	177.3 ppmv
CEM Response Value (ppmv)	77.3 ppmv	177.7 ppmv
Accuracy	2.3%	0.2%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out-of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **H_2S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 5100

Process Unit(s) Description: South Flare Stack (EPN 3-77, EQT 0049)

CEM Sampling Location: South Flare Stack (Y-AT-802)

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H_2S #1 (low scale)	H_2S #2 (high scale)
Date of Audit	3/20/17	3/20/17
Audit Gas Cylinder No.	CC441826	CC288207
Date of Audit Gas Cert.	10/3/16	10/4/16
Type of Certification	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	79.1 ppmv	177.3 ppmv
CEM Response Value	71.0 ppmv	171.0 ppmv
Accuracy	10.2%	3.6%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out-of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **Total Sulfur**

Applicable NSPS Subpart: Ja (Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), North Flare Header

CEM Sampling Location: North Flare Stack, North Flare Header (Y-AT-303)

CEM Span Value: Total Sulfur, Dual Range: 0-10,000 ppm, 10,000-1,000,000 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H_2S #1 (low scale)	H_2S #2 (high scale)
Date of Audit	1/26/17	1/26/17
Audit Gas Cylinder No.	CC305316	CC74237
Date of Audit Gas Cert.	5/27/16	9/26/16
Type of Certification	EPA Protocol 1	Certified Gas[1]
Certified Audit Value	1013.0 ppmv	10030.0 ppmv
CEM Response Value	1030.3 ppmv	9709.0 ppmv
Accuracy	1.7%	3.2%
Standard	<15%	<15%

[1] Valero unable to obtain EPA Protocol 1 certified gases greater than 1000 ppm.

II. CALIBRATION DRIFT ASSESSMENT

A. Out-of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **Total Sulfur**

Applicable NSPS Subpart: Ja (Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), Hydrocracker Flare Header

CEM Sampling Location: North Flare Stack, Hydrocracker Flare Header (Y-AT-302)

CEM Span Value: Total Sulfur, Dual Range: 0-10,000 ppm, 10,000-1,000,000 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H_2S #1 (low scale)	H_2S #2 (high scale)
Date of Audit	1/26/17	1/26/17
Audit Gas Cylinder No.	CC305316	CC74237
Date of Audit Gas Cert.	5/27/16	9/26/16
Type of Certification	EPA Protocol 1	Certified Gas[1]
Certified Audit Value	1013.0 ppmv	10030.0 ppmv
CEM Response Value	956.7 ppmv	9645.7 ppmv
Accuracy	5.6%	3.8%
Standard	<15%	<15%

[1] Valero unable to obtain EPA Protocol 1 certified gases greater than 1000 ppm.

II. CALIBRATION DRIFT ASSESSMENT

A. Out-of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **Total Sulfur**

Applicable NSPS Subpart: Ja (Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/17 to 3/31/17

Date submitted: 4/30/17

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Process Unit(s) Description: South Flare Stack (EPN 3-77, EQT 0049)

CEM Sampling Location: South Flare Stack (Y-AT-304)

CEM Span Value: Total Sulfur, Dual Range: 0-10,000 ppm, 10,000-1,000,000 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H_2S #1 (low scale)	H_2S #2 (high scale)
Date of Audit	1/26/17	1/26/17
Audit Gas Cylinder No.	CC305316	CC74237
Date of Audit Gas Cert.	5/27/16	9/26/16
Type of Certification	EPA Protocol 1	Certified Gas[1]
Certified Audit Value	1013.0 ppmv	10030.0 ppmv
CEM Response Value	1034.0 ppmv	10067.0 ppmv
Accuracy	2.1%	0.4%
Standard	<15%	<15%

[1] Valero unable to obtain EPA Protocol 1 certified gases greater than 1000 ppm.

II. CALIBRATION DRIFT ASSESSMENT

A. Out-of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

Appendix A

Ja Root Cause and Corrective Action Analysis

Subpart Ja Root Cause / Corrective Action Analysis

Impact Incident Number: 172271 / 172270

The information contained below satisfies the requirements of the NSPS Subpart Ja 60.108a(c)(6).

Report:	**Update**		
Refinery:	**Valero (Meraux)**		
Incident Type:	**Flaring (Flow and SO2), #3 SRU (SO2)**	Date of Event:	**8/27/16**
Emissions Source(s):	**North Flare (EPN 20-72, EQT 0035)**	Date Analysis Completed:	**9/22/16**
	#3 SRU Incinerator (EPN 5-00, EQT 0079)		

(1.) (60.108a(c)(6)(i))

A description of the Discharge:

At approximately 15:00 on 8/27/16, the Distributed Control System (DCS) for the #3 SRU complex lost power and caused an automatic shutdown of the #3 SRU. Excess emissions occurred at the #2 SRU, the #3 SRU, the North Flare, and multiple heaters and boilers. The #2 SRU lost the #2 TGT from the resulting process swing, but emissions from the #2 SRU were less than 500 lbs/24 hours above the allowable limit. The #3 SRU had SO2 emissions >500 lbs/24 hours while restarting the unit which was delayed due to fouled inlet screen on a plate and frame heat exchanger in the #2 Amine Unit. The heaters and boilers were combusting fuel gas with elevated levels of H2S due to the loss of the #3 SRU complex, but no Ja heater had SO2 emissions >500 lbs/24 hours. Additionally, the Rich Amine Flash Drum on the Hydrocracker Unit over-pressured and lifted the PSV to the North Flare. This resulted in SO2 emissions from flaring to exceed 500 lbs in a 24 hour period and flow greater than 500,000 scf above baseline in a 24 hour period.

Valero personnel were working in the rear of the DCS power cabinet and taking measurements on the #3 SRU DCS at the time as part of the installation of a new DCS system.

(2.) (60.108a(c)(6)(ii)) and (60.108a(c)(6)(ix))

	North Flare	#3 SRU	
Date and Time the discharge was first identified	**8/27/16 15:06**	**8/27/16 18:11**	
Date/Time the discharge had ceased	**8/28/16 12:10**	**8/28/16 8:15**	
Duration of Discharge (Calculated)	**21.1**	**14.1**	hrs

(3.) (60.108a(c)(6)(viii))

The steps taken to limit the emissions during the discharge:

Valero initiated it's refinery sulfur shedding procedure and followed its Flare Minimization Plan and Operations Procedures to minimize the volume of this discharge. Once Valero identified the Rich Amine Flash Drum as the source of the flare SO2 emissions, the Drum was manually isolated.

(4.) (60.108a(c)(6)(xi))

Necessity of RC/CAA: Determine and state whether a RC/CAA is necessary:

Note: If the discharge was a result of a planned startup or shutdown, a RC/CAA analysis is not required if the flare management plan was followed.

Did the discharge result from a planned startup or shutdown?	**No**	(Yes/No)
Was the flare management plan followed?	**Yes**	(Yes/No/N/A)
Is the event exempt from a RC/CCA based on the answers above?	**No**	(Yes/No)

- If yes, skip section 5-7.

(5.) (60.108a(c)(6)(ix))

Root Cause Analysis: Describe in detail the Root Cause(s) of the Incident, to the extent determinable:

Did this discharge result from root causes identified in a previous analysis? **No** (Yes/No)

1) Improper installation of the original DCS system. A loose wire termination caused the loss of power when personnel were working in the rear of the DCS power cabinet. (The equipment involved in this incident will be replaced with the new DCS system.)

Contributing Factors

1) The level control valve between the Recycle Gas Scrubber and the Rich Amine Flash Drum did not seal completely and allowed rich amine to leak out of the Recycle Gas Scrubber and overpressure the Rich Amine Flash Drum.

2) The recovery of the #3 SRU was delayed due to a fouled inlet screen on a plate and frame heat exchanger in the #2 Amine Unit.

(6.) (60.108a(c)(6)(ix))

Corrective Action Analysis: Include a description of the recommended corrective action(s) or an explanation of why corrective action is not

Is corrective action required? **Yes** (Yes/No)

1) Verify that the redundant power supply has been properly installed on the remaining original DCS equipment.

2) Develop a Hydrocracker Unit Loss of Amine procedure to include manually isolating the Rich Amine Flash Drum from Recycle Gas Scrubber.

3) Evaluate installing differential pressure monitoring to indicate fouling of the inlet screen to the plate exchanger.

(7.) (60.108a(c)(6)(x))

Corrective Action Schedule: Include corrective actions already completed within the first 45 days following the discharge. For those not completed, provide a schedule for implementation, including proposed commencement and completion dates.

1) Verify that the redundant power supply has been properly installed on the remaining original DCS equipment.
Commencement Date: 9/22/16
Completed: 10/24/16

2) Develop a Hydrocracker Unit Loss of Amine procedure to include manually isolating the Rich Amine Flash Drum from Recycle Gas Scrubber.
Commencement Date: 9/22/16
Completed: 11/1/16

3) Evaluate installing differential pressure monitoring to indicate fouling of the inlet screen to the plate exchanger.
Commencement Date: 9/22/16
Estimated Completion Date: 3/16/17
Valero determined that installation of differential pressure monitoring to indicate fouling was required. A new action item was created for the installation of this differential pressure monitoring.

4) Complete installation of differential pressure monitoring of the inlet screens to both plate exchangers.
Commencement Date: 3/16/17
Estimated Completion Date: 9/15/17

(8.) North Flare

The measured or calculated cumulative quantity of gas discharged over the discharge duration.

Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.

		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	**Last hour of 24-hr Period**	**24-hr cumulative volume of flared gas above Baseline**	**TRS or H2S ppm (24-hr average, flow-weighted)**	**24-hr cumulative SO2**	**24-hr cumulative reduced sulfur**
		SCF	ppmv	lbs	lbs as H2S
8/26/2016 15:00	8/27/2016 14:00	0	0	0	0
8/26/2016 16:00	8/27/2016 15:00	828,035	639	2090.4	11.2
8/26/2016 17:00	8/27/2016 16:00	1,758,230	1559	5473.0	29.4
8/26/2016 18:00	8/27/2016 17:00	2,778,600	2389	8820.4	47.4
8/26/2016 19:00	8/27/2016 18:00	3,751,297	3180	11864.7	63.8
8/26/2016 20:00	8/27/2016 19:00	4,680,576	3971	14768.6	79.4
8/26/2016 21:00	8/27/2016 20:00	4,910,444	5043	15742.3	84.6
8/26/2016 22:00	8/27/2016 21:00	4,910,444	5043	15742.3	84.6
8/26/2016 23:00	8/27/2016 22:00	4,946,570	5466	15802.8	84.9
8/27/2016 0:00	8/27/2016 23:00	5,001,886	7557	16260.0	87.4
8/27/2016 1:00	8/28/2016 0:00	5,001,886	7557	16260.0	87.4
8/27/2016 2:00	8/28/2016 1:00	5,001,886	7557	16260.0	87.4
8/27/2016 3:00	8/28/2016 2:00	5,001,886	7557	16260.0	87.4
8/27/2016 4:00	8/28/2016 3:00	5,001,886	7557	16260.0	87.4
8/27/2016 5:00	8/28/2016 4:00	5,001,886	7557	16260.0	87.4
8/27/2016 6:00	8/28/2016 5:00	5,001,886	7557	16260.0	87.4
8/27/2016 7:00	8/28/2016 6:00	5,001,886	7557	16260.0	87.4
8/27/2016 8:00	8/28/2016 7:00	5,001,886	7557	16260.0	87.4
8/27/2016 9:00	8/28/2016 8:00	5,001,886	7557	16260.0	87.4

(8.) North Flare

The measured or calculated cumulative quantity of gas discharged over the discharge duration.

Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.

		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	**Last hour of 24-hr Period**	**24-hr cumulative volume of flared gas above Baseline**	**TRS or H2S ppm (24-hr average, flow-weighted)**	**24-hr cumulative SO2**	**24-hr cumulative reduced sulfur**
		SCF	ppmv	lbs	lbs as H2S
8/27/2016 10:00	8/28/2016 9:00	5,001,886	7557	16260.0	87.4
8/27/2016 11:00	8/28/2016 10:00	5,001,886	7557	16260.0	87.4
8/27/2016 12:00	8/28/2016 11:00	5,001,886	7557	16260.0	87.4
8/27/2016 13:00	8/28/2016 12:00	5,001,886	7557	16260.0	87.4
8/27/2016 14:00	8/28/2016 13:00	5,001,886	7557	16260.0	87.4
8/27/2016 15:00	8/28/2016 14:00	5,001,886	7557	16260.0	87.4
8/27/2016 16:00	8/28/2016 15:00	4,173,851	6918	14169.6	76.1
8/27/2016 17:00	8/28/2016 16:00	3,243,656	5998	10787.0	58.0
8/27/2016 18:00	8/28/2016 17:00	2,223,286	5168	7439.6	40.0
8/27/2016 19:00	8/28/2016 18:00	1,250,589	4377	4395.3	23.6
8/27/2016 20:00	8/28/2016 19:00	321,311	3586	1491.3	8.0
8/27/2016 21:00	8/28/2016 20:00	91,442	2514	517.6	2.8
8/27/2016 22:00	8/28/2016 21:00	91,442	2514	517.6	2.8
8/27/2016 23:00	8/28/2016 22:00	55,316	2091	457.1	2.5
8/28/2016 0:00	8/28/2016 23:00	0	0	0.0	0.0

(9.) #3 SRU

The measured or calculated cumulative quantity of gas discharged over the discharge duration.

Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.

		(60.108a(c)(6)(iii))	(60.108a(c)(6)(vi))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	**Last hour of 24-hr Period**	**24-hr cumulative volume**	**SO_2 ppm (24-hr average, flow-weighted)[1]**	**24-hr cumulative SO_2[2]**	**24-hr cumulative reduced sulfur**
		SCF	ppmv	lbs	lbs as H2S
8/26/2016 18:00	8/27/2016 17:00	27,255,334	29	113.4	0.6
8/26/2016 19:00	8/27/2016 18:00	27,260,948	58	235.1	1.3
8/26/2016 20:00	8/27/2016 19:00	26,468,252	104	290.9	1.6
8/26/2016 21:00	8/27/2016 20:00	25,576,964	149	320.7	1.7
8/26/2016 22:00	8/27/2016 21:00	24,682,472	195	348.1	1.9
8/26/2016 23:00	8/27/2016 22:00	23,889,098	218	365.6	2.0
8/27/2016 0:00	8/27/2016 23:00	23,146,658	223	368.3	2.0
8/27/2016 1:00	8/28/2016 0:00	22,321,852	227	368.5	2.0
8/27/2016 2:00	8/28/2016 1:00	21,497,238	231	368.1	2.0
8/27/2016 3:00	8/28/2016 2:00	20,635,496	234	366.4	2.0
8/27/2016 4:00	8/28/2016 3:00	19,874,234	238	366.6	2.0
8/27/2016 5:00	8/28/2016 4:00	19,145,942	241	367.6	2.0
8/27/2016 6:00	8/28/2016 5:00	18,874,473	277	461.5	2.5
8/27/2016 7:00	8/28/2016 6:00	18,945,257	315	621.5	3.3
8/27/2016 8:00	8/28/2016 7:00	18,792,136	345	729.1	3.9
8/27/2016 9:00	8/28/2016 8:00	18,463,081	352	747.4	4.0
8/27/2016 10:00	8/28/2016 9:00	18,096,094	355	753.3	4.0
8/27/2016 11:00	8/28/2016 10:00	17,775,016	358	759.7	4.1
8/27/2016 12:00	8/28/2016 11:00	17,518,615	359	760.5	4.1
8/27/2016 13:00	8/28/2016 12:00	17,345,541	360	762.1	4.1
8/27/2016 14:00	8/28/2016 13:00	17,247,716	361	765.1	4.1
8/27/2016 15:00	8/28/2016 14:00	17,210,286	362	769.1	4.1
8/27/2016 16:00	8/28/2016 15:00	17,014,029	364	778.2	4.2
8/27/2016 17:00	8/28/2016 16:00	16,457,597	366	787.1	4.2
8/27/2016 18:00	8/28/2016 17:00	15,702,164	369	795.5	4.3
8/27/2016 19:00	8/28/2016 18:00	15,646,501	340	676.3	3.6

[1] SRU SO2 CEMS are spanned to 500 ppm. For emissions calculations, Valero assumes 2 times the span, 1000 ppm, for CEMS readings >= 500 ppm.

[2] Tail Gas Treater bypass emissions are calculated using a mass balance method, not using the flow and concentration values listed here.

Subpart Ja Root Cause / Corrective Action Analysis

Impact Incident Number: 174622 / 174623

The information contained below satisfies the requirements of the NSPS Subpart Ja 60.108a(c)(6).

Report:	**Update**		
Refinery:	**Valero (Meraux)**		
Incident Type:	**Flaring (Flow and SO2), #3 SRU (SO2)**	Date of Event:	**10/23/16**
Emissions Source(s):	**North Flare (EPN 20-72, EQT 0035)**	Date Analysis Completed:	**11/16/16**
	#3 SRU Incinerator (EPN 5-00, EQT 0079)		

(1.) (60.108a(c)(6)(i))

A description of the Discharge:

At approximately 04:20 on 10/23/16, the Flare Gas Recovery (FGR) compressor tripped on high oil injection temperature which resulted in flaring for approximately 24 minutes. Later that day, at approximately 13:27, Valero was attempting to start up the Hydrocracker (HC) Recycle Gas Scrubber when a shutdown of the Lean Amine Pumps resulted in the rapid loss of level in the Hydrocracker Recycle Gas Scrubber. This allowed high pressure gases from the HC Recycle Gas Scrubber to enter the Rich Amine Flash Drum causing the PSV to lift to the flare, exceeding 500,000 SCF/24 hours and 500 lbs SO2/24 hours at the North Flare. Still later that day at approximately 14:20, while Valero was making the 2nd attempt at starting up the HC Recycle Gas Scrubber, the #3 Sulfur Recovery Unit (SRU) tripped on low air flow, which resulted in SO2 emissions greater than 500 lbs/24 hours above the allowable emissions from the #3 SRU Incinerator.

(2.) (60.108a(c)(6)(ii)) and (60.108a(c)(6)(ix))

	North Flare	#3 SRU	
Date and Time the discharge was first identified	**10/23/16 4:22**	**10/23/16 14:23**	
Date/Time the discharge had ceased	**10/23/16 14:44**	**10/24/16 9:36**	
Duration of Discharge (Calculated)	**10.4**	**19.2**	hrs

(3.) (60.108a(c)(6)(viii))

The steps taken to limit the emissions during the discharge:

Valero initiated it's refinery sulfur shedding procedure and followed its Flare Minimization Plan and Operations Procedures to minimize the volume of this discharge. Once Valero identified the Rich Amine Flash Drum as the source of the flare SO2 emissions, the Drum was manually isolated.

(4.) (60.108a(c)(6)(xi))

Necessity of RC/CAA: Determine and state whether a RC/CAA is necessary:

Note: If the discharge was a result of a planned startup or shutdown, a RC/CAA analysis is not required if the flare management plan was followed.

Did the discharge result from a planned startup or shutdown?	**No**	(Yes/No)
Was the flare management plan followed?	**Yes**	(Yes/No/N/A)
Is the event exempt from a RC/CCA based on the answers above?	**No**	(Yes/No)

- If yes, skip section 5-7.

(5.) (60.108a(c)(6)(ix))

Root Cause Analysis: Describe in detail the Root Cause(s) of the Incident, to the extent determinable:

Did this discharge result from root causes identified in a previous analysis? **No** (Yes/No)

1) FGR Compressor Trip - The Alarm Properties window for the FGR Compressor Outlet LO Temperature Alarm recommended that the Injection Oil Cooler fan be stopped. This recommended action was incorrect and resulted in the FGR Compressor tripping on HI Injection Oil temperature.
2) Hydrocracker Rich Amine Flash Drum PSV - The primary level control valve for the HC Recycle Gas Scrubber (HC-LV018A) was being operated in tandem with a manual block valve because it was known that HC-LV018A did not fully close. The manual block valve was not closed quickly enough to prevent emptying the HC Recycle Gas Scrubber. The other level control valve, HC-LV018B, was available and should have been used.
3) #3 SRU Trip - The DCS console operator inputted an incorrect setpoint value for the #3 SRU Main Burner air flow.

Contributing Factors:
1) Level indication on the #2 Amine Rich Amine Flash Drum failed to indicate that the level had fallen below 40%.

(6.) (60.108a(c)(6)(ix))

Corrective Action Analysis: Include a description of the recommended corrective action(s) or an explanation of why corrective action is not

Is corrective action required? **Yes** (Yes/No)

1) Correct the recommended action for an FGR Compressor Outlet Temperature LO Alarm.

2) Repair the level indication on the #2 Amine Rich Amine Flash Drum.

3) Repair HC-LV018A so that it fully closes.

4) Incorporate specific guidelines for HC Recycle Gas Scrubber system start-up into existing HC Start-Up procedure. Include positive verification of HC-LV018A or B line up in procedure.

5) Implement setpoint limits or rate of changes limits for the #3 SRU Main Bruner Air Flow.

(7.) (60.108a(c)(6)(x))

Corrective Action Schedule: Include corrective actions already completed within the first 45 days following the discharge. For those not completed, provide a schedule for implementation, including proposed commencement and completion dates.

1) Correct the recommended action for an FGR Compressor Outlet Temperature LO Alarm.
Commencement Date: 11/16/16
Completed: 12/15/16

2) Repair the level indication on the #2 Amine Rich Amine Flash Drum.
Commencement Date: 11/16/16
Completed: 11/16/16

3) Repair HC-LV018A so that it fully closes.
Commencement Date: 11/16/16
Completed: 12/20/16

4) Incorporate specific guidelines for HC Recycle Gas Scrubber system start-up into existing HC Start-Up procedure. Include positive verification of HC-LV018A or B line up in procedure.
Commencement Date: 11/16/16
Estimated Completion Date: 6/30/17

5) Implement setpoint limits or rate of changes limits for the #3 SRU Main Burner Air Flow.
Commencement Date: 11/16/16
Completed: 3/30/17

(8.) North Flare

The measured or calculated cumulative quantity of gas discharged over the discharge duration.

Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.

		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	**Last hour of 24-hr Period**	**24-hr cumulative volume of flared gas above Baseline**	**TRS or H2S ppm (24-hr average, flow-weighted)**	**24-hr cumulative SO2**	**24-hr cumulative reduced sulfur**
		SCF	ppmv	lbs	lbs as H2S
10/22/2016 4:00	10/23/2016 3:00	198	2	0	0
10/22/2016 5:00	10/23/2016 4:00	63,994	1502	378.3	2.0
10/22/2016 6:00	10/23/2016 5:00	72,058	1503	378.3	2.0
10/22/2016 7:00	10/23/2016 6:00	92,004	1503	378.4	2.0
10/22/2016 8:00	10/23/2016 7:00	128,978	1512	379.6	2.0
10/22/2016 9:00	10/23/2016 8:00	156,193	1518	380.3	2.0
10/22/2016 10:00	10/23/2016 9:00	183,897	1518	380.3	2.0
10/22/2016 11:00	10/23/2016 10:00	213,479	1518	380.3	2.0
10/22/2016 12:00	10/23/2016 11:00	244,978	1518	380.3	2.0
10/22/2016 13:00	10/23/2016 12:00	247,030	1522	380.4	2.0
10/22/2016 14:00	10/23/2016 13:00	366,559	2011	611.4	3.3
10/22/2016 15:00	10/23/2016 14:00	414,066	2238	654.2	3.5
10/22/2016 16:00	10/23/2016 15:00	439,664	2238	654.2	3.5
10/22/2016 17:00	10/23/2016 16:00	461,597	2239	654.2	3.5
10/22/2016 18:00	10/23/2016 17:00	461,608	2239	654.2	3.5
10/22/2016 19:00	10/23/2016 18:00	461,608	2239	654.2	3.5
10/22/2016 20:00	10/23/2016 19:00	461,608	2239	654.2	3.5
10/22/2016 21:00	10/23/2016 20:00	461,608	2239	654.2	3.5
10/22/2016 22:00	10/23/2016 21:00	461,608	2239	654.2	3.5
10/22/2016 23:00	10/23/2016 22:00	461,608	2239	654.2	3.5
10/23/2016 0:00	10/23/2016 23:00	461,608	2239	654.2	3.5
10/23/2016 1:00	10/24/2016 0:00	462,286	2283	654.3	3.5
10/23/2016 2:00	10/24/2016 1:00	462,286	2283	654.3	3.5
10/23/2016 3:00	10/24/2016 2:00	462,286	2283	654.3	3.5
10/23/2016 4:00	10/24/2016 3:00	595,167	2300	664.2	3.6
10/23/2016 5:00	10/24/2016 4:00	561,475	812	287.4	1.5
10/23/2016 6:00	10/24/2016 5:00	553,411	811	287.4	1.5
10/23/2016 7:00	10/24/2016 6:00	533,465	811	287.4	1.5
10/23/2016 8:00	10/24/2016 7:00	496,491	802	286.1	1.5

(9.) #3 SRU

The measured or calculated cumulative quantity of gas discharged over the discharge duration.

Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.

		(60.108a(c)(6)(iii))	(60.108a(c)(6)(vi))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	**Last hour of 24-hr Period**	**24-hr cumulative volume**	**SO_2 ppm (24-hr average, flow-weighted)[1]**	**24-hr cumulative SO_2[2]**	**24-hr cumulative reduced sulfur**
		SCF	ppmv	lbs	lbs as H2S
10/22/2016 14:00	10/23/2016 13:00	13,905,058	74	189.0	1.0
10/22/2016 15:00	10/23/2016 14:00	14,318,017	107	288.4	1.6
10/22/2016 16:00	10/23/2016 15:00	13,866,363	150	299.3	1.6
10/22/2016 17:00	10/23/2016 16:00	13,299,990	196	298.8	1.6
10/22/2016 18:00	10/23/2016 17:00	12,774,555	242	298.4	1.6
10/22/2016 19:00	10/23/2016 18:00	12,374,545	246	306.7	1.6
10/22/2016 20:00	10/23/2016 19:00	12,352,716	251	316.0	1.7
10/22/2016 21:00	10/23/2016 20:00	12,217,019	254	319.3	1.7
10/22/2016 22:00	10/23/2016 21:00	12,052,873	255	320.5	1.7
10/22/2016 23:00	10/23/2016 22:00	11,937,688	252	314.9	1.7
10/23/2016 0:00	10/23/2016 23:00	11,984,126	247	302.3	1.6
10/23/2016 1:00	10/24/2016 0:00	12,286,388	274	404.3	2.2
10/23/2016 2:00	10/24/2016 1:00	12,758,113	279	426.7	2.3
10/23/2016 3:00	10/24/2016 2:00	13,307,302	284	449.0	2.4
10/23/2016 4:00	10/24/2016 3:00	14,009,686	287	467.5	2.5
10/23/2016 5:00	10/24/2016 4:00	14,612,868	289	475.0	2.6
10/23/2016 6:00	10/24/2016 5:00	15,231,764	290	481.4	2.6
10/23/2016 7:00	10/24/2016 6:00	15,777,042	294	499.2	2.7
10/23/2016 8:00	10/24/2016 7:00	16,432,201	339	713.7	3.8
10/23/2016 9:00	10/24/2016 8:00	17,016,939	354	776.0	4.2
10/23/2016 10:00	10/24/2016 9:00	17,693,776	360	806.7	4.3
10/23/2016 11:00	10/24/2016 10:00	18,263,072	361	815.5	4.4
10/23/2016 12:00	10/24/2016 11:00	18,856,758	363	823.2	4.4
10/23/2016 13:00	10/24/2016 12:00	19,458,013	364	830.6	4.5
10/23/2016 14:00	10/24/2016 13:00	20,115,328	365	837.9	4.5
10/23/2016 15:00	10/24/2016 14:00	20,495,780	333	747.3	4.0
10/23/2016 16:00	10/24/2016 15:00	21,571,757	291	746.0	4.0
10/23/2016 17:00	10/24/2016 16:00	22,649,507	246	752.6	4.0
10/23/2016 18:00	10/24/2016 17:00	23,684,057	201	758.9	4.1
10/23/2016 19:00	10/24/2016 18:00	24,606,305	199	756.8	4.1
10/23/2016 20:00	10/24/2016 19:00	25,155,622	195	753.6	4.1
10/23/2016 21:00	10/24/2016 20:00	25,756,251	193	755.4	4.1
10/23/2016 22:00	10/24/2016 21:00	26,396,826	193	760.1	4.1
10/23/2016 23:00	10/24/2016 22:00	26,898,548	193	763.1	4.1
10/24/2016 0:00	10/24/2016 23:00	26,986,866	160	664.9	3.6
10/24/2016 1:00	10/25/2016 0:00	26,953,052	131	561.2	3.0
10/24/2016 2:00	10/25/2016 1:00	26,818,877	126	540.3	2.9

[1] SRU SO2 CEMS are spanned to 500 ppm. For emissions calculations, Valero assumes 2 times the span, 1000 ppm, for CEMS readings >= 500 ppm.

[2] Tail Gas Treater bypass emissions are calculated using a mass balance method, not using the flow and concentration values listed here.

Subpart Ja Root Cause / Corrective Action Analysis

Impact Incident Number: **176002**

The information contained below satisfies the requirements of the NSPS Subpart Ja 60.108a(c)(6).

Report:	**Update**		
Refinery:	**Valero (Meraux)**		
Incident Type:	**Flaring (Flow and SO2)**	Date of Event:	**11/29/16**
Emissions Source(s):	**North Flare (EPN 20-72, EQT 0035)**	Date Analysis Completed:	**1/5/17**

(1.) (60.108a(c)(6)(i))

A description of the Discharge:

On 11/29/16 at approximately 14:00, a leak developed in the Hydrocracker Unit (HC) on the Stripper Feed Exchanger (HC-E-003). This leak caused the high pressure of the intermediate separator vapor circuit to dump into the lower pressure stripper system. The resulting high pressure in the stripper system caused all PSVs in this circuit (Stripper, Stripper Off-gas Scrubber and Rich Amine Flash Drum) to relieve to the flare. This flaring exceeded 500,000 SCF/24 hours and 500 lbs of SO2/24 hours. Valero quickly initiated a HC shutdown and additional flaring continued until 12/1/16 at 17:00.

(2.) (60.108a(c)(6)(ii)) and (60.108a(c)(6)(ix))

and Time the discharge was first identified	**11/29/16 14:07**
Date/Time the discharge had ceased	**12/1/16 17:00**
Duration of Discharge (Calculated)	**50.9** hrs

(3.) (60.108a(c)(6)(viii))

The steps taken to limit the emissions during the discharge:

Valero followed its Flare Minimization Plan and Operations Procedures to minimize the volume of this discharge.

(4.) (60.108a(c)(6)(xi))

Necessity of RC/CAA: Determine and state whether a RC/CAA is necessary:

Note: If the discharge was a result of a planned startup or shutdown, a RC/CAA analysis is not required if the flare management plan was followed.

Did the discharge result from a planned startup or shutdown?	**No**	(Yes/No)
Was the flare management plan followed?	**Yes**	(Yes/No/N/A)
Is the event exempt from a RC/CCA based on the answers above?	**No**	(Yes/No)

- If yes, skip section 5-7.

(5.) (60.108a(c)(6)(ix))

Root Cause Analysis: Describe in detail the Root Cause(s) of the Incident, to the extent determinable:

Did this discharge result from root causes identified in a previous analysis? **No** (Yes/No)

Inspection of the heat exchanger revealed rapid Chloride corrosion on the outside diameter of the tubes, concentrated between the last two baffles. This was the result of the presence of Ammonium chloride and water in the shell side (stripper feed) of the exchanger. Though some chlorides are expected in this stream, water is not. Water carryover into this exchanger is likely the result of poor oil/water separation in the Cold Flash Drum due to the following possibilities:

1) An undersized water boot.

2) Increased wash water rate post HC revamp (wash water rate increased approximately 50%).

3) Fouled mesh blanket.

(6.) (60.108a(c)(6)(ix))

Corrective Action Analysis: Include a description of the recommended corrective action(s) or an explanation of why corrective action is

Is corrective action required? **Yes** (Yes/No)

1) Determine a maximum Ammonium Bisulfide concentration to set the minimum wash water injection rate upstream of HC-E-004 to reduce likelihood of water carryover in stripper feed stream, and determine adjusted corrosion rates.

2) Review design of the Cold Flash Drum and generate MOCs and EWRs as needed to correct any deficiencies.

3) Generate MOC or EWR to replace or upgrade mesh blanket in Cold Flash Drum.

4) Order new HC-E-003 bundle for 2018. Evaluate possible metallurgy upgrade.

5) Find an alternate location for the Flash Gas Scrubber KO Drum (HC-V-065) liquid and generate an EWR to reroute it.

(7.) (60.108a(c)(6)(x))

Corrective Action Schedule: Include corrective actions already completed within the first 45 days following the discharge. For those not completed, provide a schedule for implementation, including proposed commencement and completion dates.

1) Determine a maximum Ammonium Bisulfide concentration to set the minimum wash water injection rate upstream of HC-E-004 to reduce likelihood of water carryover in stripper feed stream, and determine adjusted corrosion rates.
Commencement Date: 1/5/17
Completed Date: 3/24/17

2) Review design of the Cold Flash Drum and generate MOCs and EWRs as needed to correct any deficiencies.
Commencement Date: 1/5/17
Estimated Completion Date: 1/1/18

3) Generate MOC or EWR to replace or upgrade mesh blanket in Cold Flash Drum.
Commencement Date: 1/5/17
Completed Date: 3/28/17

4) Order new HC-E-003 bundle for 2018. Evaluate possible metallurgy upgrade.
Commencement Date: 1/5/17
Estimated Completion Date: 1/1/18

5) Find an alternate location for the Flash Gas Scrubber KO Drum (HC-V-065) liquid and generate an EWR to reroute it.
Commencement Date: 1/5/17
Estimated Completion Date: 5/18/18

(8.)

The measured or calculated cumulative quantity of gas discharged over the discharge duration.

Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.

		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	**Last hour of 24-hr Period**	**24-hr cumulative volume of flared gas above Baseline**	**TRS or H2S ppm (24-hr average, flow-weighted)**	**24-hr cumulative SO2**	**24-hr cumulative reduced sulfur**
		SCF	ppmv	lbs	lbs as H2S
11/28/2016 14:00	11/29/2016 13:00	442,131	37895	53.9	0.3
11/28/2016 15:00	11/29/2016 14:00	1,747,430	38574	3555.9	19.1
11/28/2016 16:00	11/29/2016 15:00	3,384,372	39341	8518.0	45.8
11/28/2016 17:00	11/29/2016 16:00	4,864,786	39651	10331.7	55.5
11/28/2016 18:00	11/29/2016 17:00	6,137,194	39757	10868.4	58.4
11/28/2016 19:00	11/29/2016 18:00	6,621,544	39846	11038.1	59.3
11/28/2016 20:00	11/29/2016 19:00	6,637,905	39920	11042.9	59.3
11/28/2016 21:00	11/29/2016 20:00	6,665,046	39934	11044.4	59.3
11/28/2016 22:00	11/29/2016 21:00	6,687,899	39941	11045.1	59.4
11/28/2016 23:00	11/29/2016 22:00	6,721,724	39952	11046.5	59.4
11/29/2016 0:00	11/29/2016 23:00	6,866,231	39961	11051.3	59.4
11/29/2016 1:00	11/30/2016 0:00	6,964,842	39962	11052.0	59.4
11/29/2016 2:00	11/30/2016 1:00	7,042,602	39973	11055.3	59.4
11/29/2016 3:00	11/30/2016 2:00	7,137,068	39977	11056.7	59.4
11/29/2016 4:00	11/30/2016 3:00	7,223,966	39979	11057.3	59.4
11/29/2016 5:00	11/30/2016 4:00	7,246,471	39795	11030.9	59.3
11/29/2016 6:00	11/30/2016 5:00	7,219,344	39781	11027.1	59.3
11/29/2016 7:00	11/30/2016 6:00	7,249,132	39770	11025.9	59.2
11/29/2016 8:00	11/30/2016 7:00	7,594,364	39758	11025.0	59.2
11/29/2016 9:00	11/30/2016 8:00	7,906,155	39853	11182.7	60.1
11/29/2016 10:00	11/30/2016 9:00	8,111,141	40001	11373.4	61.1
11/29/2016 11:00	11/30/2016 10:00	8,402,137	39654	11477.9	61.7
11/29/2016 12:00	11/30/2016 11:00	8,767,134	2739	11598.5	62.3
11/29/2016 13:00	11/30/2016 12:00	9,129,514	2713	11674.3	62.7
11/29/2016 14:00	11/30/2016 13:00	9,443,967	2641	11711.4	62.9
11/29/2016 15:00	11/30/2016 14:00	8,453,648	1973	8222.9	44.2
11/29/2016 16:00	11/30/2016 15:00	7,244,608	1211	3269.3	17.6
11/29/2016 17:00	11/30/2016 16:00	6,028,272	904	1458.6	7.8
11/29/2016 18:00	11/30/2016 17:00	4,778,453	802	922.3	5.0
11/29/2016 19:00	11/30/2016 18:00	4,403,343	743	765.2	4.1
11/29/2016 20:00	11/30/2016 19:00	4,638,495	728	819.7	4.4
11/29/2016 21:00	11/30/2016 20:00	4,684,620	760	831.6	4.5
11/29/2016 22:00	11/30/2016 21:00	4,700,482	800	838.1	4.5
11/29/2016 23:00	11/30/2016 22:00	4,694,191	819	839.9	4.5
11/30/2016 0:00	11/30/2016 23:00	4,572,301	835	837.3	4.5
11/30/2016 1:00	12/1/2016 0:00	4,490,705	840	837.0	4.5
11/30/2016 2:00	12/1/2016 1:00	4,451,088	839	835.3	4.5
11/30/2016 3:00	12/1/2016 2:00	4,400,707	847	836.0	4.5
11/30/2016 4:00	12/1/2016 3:00	4,371,611	856	837.8	4.5
11/30/2016 5:00	12/1/2016 4:00	4,332,023	873	838.9	4.5
11/30/2016 6:00	12/1/2016 5:00	4,308,423	884	839.3	4.5
11/30/2016 7:00	12/1/2016 6:00	4,257,383	900	839.9	4.5
11/30/2016 8:00	12/1/2016 7:00	3,801,902	903	830.2	4.5
11/30/2016 9:00	12/1/2016 8:00	3,592,594	785	674.1	3.6
11/30/2016 10:00	12/1/2016 9:00	3,359,769	631	480.1	2.6
11/30/2016 11:00	12/1/2016 10:00	3,096,404	551	376.7	2.0
11/30/2016 12:00	12/1/2016 11:00	2,765,661	483	258.1	1.4
11/30/2016 13:00	12/1/2016 12:00	2,436,801	442	183.9	1.0
11/30/2016 14:00	12/1/2016 13:00	2,154,612	421	147.8	0.8
11/30/2016 15:00	12/1/2016 14:00	1,871,867	428	136.5	0.7
11/30/2016 16:00	12/1/2016 15:00	1,473,125	429	128.5	0.7

(8.)

The measured or calculated cumulative quantity of gas discharged over the discharge duration.

Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.

		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	**Last hour of 24-hr Period**	**24-hr cumulative volume of flared gas above Baseline**	**TRS or H2S ppm (24-hr average, flow-weighted)**	**24-hr cumulative SO2**	**24-hr cumulative reduced sulfur**
		SCF	ppmv	lbs	lbs as H2S
11/30/2016 17:00	12/1/2016 16:00	1,238,898	474	131.4	0.7
11/30/2016 18:00	12/1/2016 17:00	1,216,310	469	130.9	0.7
11/30/2016 19:00	12/1/2016 18:00	1,107,070	440	118.3	0.6
11/30/2016 20:00	12/1/2016 19:00	855,557	380	58.9	0.3
11/30/2016 21:00	12/1/2016 20:00	782,290	334	45.6	0.2
11/30/2016 22:00	12/1/2016 21:00	743,575	287	38.4	0.2
11/30/2016 23:00	12/1/2016 22:00	716,041	257	35.2	0.2
12/1/2016 0:00	12/1/2016 23:00	693,425	233	33.0	0.2
12/1/2016 1:00	12/2/2016 0:00	676,409	227	32.6	0.2
12/1/2016 2:00	12/2/2016 1:00	638,266	216	31.0	0.2
12/1/2016 3:00	12/2/2016 2:00	594,181	205	29.0	0.2
12/1/2016 4:00	12/2/2016 3:00	536,379	194	26.5	0.1
12/1/2016 5:00	12/2/2016 4:00	517,036	176	25.1	0.1
12/1/2016 6:00	12/2/2016 5:00	502,803	164	24.4	0.1
12/1/2016 7:00	12/2/2016 6:00	478,861	143	22.4	0.1

Subpart Ja Root Cause / Corrective Action Analysis

Impact Incident Number: **177077**

The information contained below satisfies the requirements of the NSPS Subpart Ja 60.108a(c)(6).

Report:	**Final**		
Refinery:	**Valero (Meraux)**		
Incident Type:	**Flaring (Flow)**	Date of Event:	**12/31/16**
Emissions Source(s):	**North Flare (EPN 20-72, EQT 0035)**	Date Analysis Completed:	**2/9/17**

(1.) (60.108a(c)(6)(i))

A description of the Discharge:

On 12/31/16, at approximately 21:51, the Reformer Net Gas Compressor tripped offline due to high vibration readings. A second trip occurred on 1/1/17, at approximately, 01:46. Flaring at the North Flare exceeded 500,000 SCF/24 hrs.

(2.) (60.108a(c)(6)(ii)) and (60.108a(c)(6)(ix))

and Time the discharge was first identified	**12/31/16 21:51**
Date/Time the discharge had ceased	**1/1/17 3:00**
Duration of Discharge (Calculated)	**5.2** hrs

(3.) (60.108a(c)(6)(viii))

The steps taken to limit the emissions during the discharge:

Valero followed its Flare Minimization Plan and Operations Procedures to minimize the volume of this discharge.

(4.) (60.108a(c)(6)(xi))

Necessity of RC/CAA: Determine and state whether a RC/CAA is necessary:

Note: If the discharge was a result of a planned startup or shutdown, a RC/CAA analysis is not required if the flare management plan was followed.

Did the discharge result from a planned startup or shutdown?	**No**	(Yes/No)
Was the flare management plan followed?	**Yes**	(Yes/No/N/A)
Is the event exempt from a RC/CCA based on the answers above?	**No**	(Yes/No)

- **If yes, skip section 5-7.**

(5.) (60.108a(c)(6)(ix))

Root Cause Analysis: Describe in detail the Root Cause(s) of the Incident, to the extent determinable:

Did this discharge result from root causes identified in a previous analysis? **No** (Yes/No)

Root Cause(s):

1) The vibration monitoring system was overdue for service.
2) The trip settings were more stringent than required.

Contributing Factor(s):

1) Compressor failed to start at first attempt due to an increase of the molecular weight.

(6.) (60.108a(c)(6)(ix))

Corrective Action Analysis: Include a description of the recommended corrective action(s) or an explanation of why corrective action is

Is corrective action required? **Yes** (Yes/No)

1) Perform full service on the vibration monitoring system in the Net Gas Compressor.

2) Ensure that the vibration monitoring system is serviced during each Reformer turnaround.

3) Adjust the Reformer Net Gas Compressor vibration alarm and trip points to meet Valero standards.

4) Review and revise the Net Gas Compressor Startup Procedure to address increase of molecular weight.

5) Develop Hot-Startup procedure for the Reformer Net Gas Compressor.

(7.) (60.108a(c)(6)(x))

Corrective Action Schedule: Include corrective actions already completed within the first 45 days following the discharge. For those not completed, provide a schedule for implementation, including proposed commencement and completion dates.

1) Perform full service on the vibration monitoring system in the Net Gas Compressor.
Commencement Date: 2/9/17
Completed: 2/9/17

2) Ensure that the vibration monitoring system is serviced during each Reformer turnaround.
Commencement Date: 2/9/17
Completed: 2/13/17

3) Adjust the Reformer Net Gas Compressor vibration alarm and trip points to meet Valero standards.
Commencement Date: 2/9/17
Completed: 2/13/17

4) Review and revise the Net Gas Compressor Startup Procedure to address increase of molecular weight.
Commencement Date: 2/9/17
Completed: 3/14/17

5) Develop Hot-Startup procedure for the Reformer Net Gas Compressor.
Commencement Date: 2/9/17
Completed: 3/14/17

(8.)

The measured or calculated cumulative quantity of gas discharged over the discharge duration.

Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.

		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	**Last hour of 24-hr Period**	**24-hr cumulative volume of flared gas above Baseline**	**TRS or H2S ppm (24-hr average, flow-weighted)**	**24-hr cumulative SO2**	**24-hr cumulative reduced sulfur**
		SCF	ppmv	lbs	lbs as H2S
12/30/2016 21:00	12/31/2016 20:00	0	0	0.0	0.0
12/30/2016 22:00	12/31/2016 21:00	71,288	233	65.7	0.4
12/30/2016 23:00	12/31/2016 22:00	201,750	260	79.4	0.4
12/31/2016 0:00	12/31/2016 23:00	202,560	444	80.0	0.4
12/31/2016 1:00	1/1/2017 0:00	202,560	444	80.0	0.4
12/31/2016 2:00	1/1/2017 1:00	381,637	517	131.7	0.7
12/31/2016 3:00	1/1/2017 2:00	946,431	530	159.1	0.9
12/31/2016 4:00	1/1/2017 3:00	946,431	530	159.1	0.9
12/31/2016 5:00	1/1/2017 4:00	946,431	530	159.1	0.9
12/31/2016 6:00	1/1/2017 5:00	946,431	530	159.1	0.9
12/31/2016 7:00	1/1/2017 6:00	946,431	530	159.1	0.9
12/31/2016 8:00	1/1/2017 7:00	946,431	530	159.1	0.9
12/31/2016 9:00	1/1/2017 8:00	946,431	530	159.1	0.9
12/31/2016 10:00	1/1/2017 9:00	946,431	530	159.1	0.9
12/31/2016 11:00	1/1/2017 10:00	946,431	530	159.1	0.9
12/31/2016 12:00	1/1/2017 11:00	946,431	530	159.1	0.9
12/31/2016 13:00	1/1/2017 12:00	946,431	530	159.1	0.9
12/31/2016 14:00	1/1/2017 13:00	946,431	530	159.1	0.9
12/31/2016 15:00	1/1/2017 14:00	946,431	530	159.1	0.9
12/31/2016 16:00	1/1/2017 15:00	946,431	530	159.1	0.9
12/31/2016 17:00	1/1/2017 16:00	946,431	530	159.1	0.9
12/31/2016 18:00	1/1/2017 17:00	946,431	530	159.1	0.9
12/31/2016 19:00	1/1/2017 18:00	946,431	530	159.1	0.9
12/31/2016 20:00	1/1/2017 19:00	946,431	530	159.1	0.9
12/31/2016 21:00	1/1/2017 20:00	946,431	530	159.1	0.9
12/31/2016 22:00	1/1/2017 21:00	875,143	296	93.4	0.5
12/31/2016 23:00	1/1/2017 22:00	744,680	270	79.8	0.4
1/1/2017 0:00	1/1/2017 23:00	743,871	85	79.2	0.4
1/1/2017 1:00	1/2/2017 0:00	743,871	85	79.2	0.4
1/1/2017 2:00	1/2/2017 1:00	564,794	12	27.4	0.1
1/1/2017 3:00	1/2/2017 2:00	0	0	0.0	0.0

Subpart Ja Root Cause / Corrective Action Analysis

Impact Incident Number: **178573**

The information contained below satisfies the requirements of the NSPS Subpart Ja 60.108a(c)(6).

Report:	**Initial**		
Refinery:	**Valero (Meraux)**		
Incident Type:	**Flaring (Flow and SO2)**	Date of Event:	**2/8/17**
Emissions Source(s):	**North Flare (EPN 20-72, EQT 0035)**	Date Analysis Completed:	**3/16/17**

(1.) (60.108a(c)(6)(i))

A description of the Discharge:

On 2/8/17 at approximately 07:15, a vent line branching from the 1st stage suction line of the "B" Hydrocracker/Hydrotreater Make Up Gas (MUG) compressor failed and resulted in a fire. The event triggered an emergency safety shutdown and the unit was depressurized to the North Flare This flaring exceeded 500,000 SCF/24 hours and 500 lbs of SO2/24 hours.

(2.) (60.108a(c)(6)(ii)) and (60.108a(c)(6)(ix))

and Time the discharge was first identified	**2/8/17 7:18**	
Date/Time the discharge had ceased	**2/8/17 8:30**	
Duration of Discharge (Calculated)	**1.2**	hrs

(3.) (60.108a(c)(6)(viii))

The steps taken to limit the emissions during the discharge:

Valero followed its Flare Minimization Plan and Operations Procedures to minimize the volume of this discharge.

(4.) (60.108a(c)(6)(xi))

Necessity of RC/CAA: Determine and state whether a RC/CAA is necessary:

Note: If the discharge was a result of a planned startup or shutdown, a RC/CAA analysis is not required if the flare management plan was followed.

Did the discharge result from a planned startup or shutdown?	**No**	(Yes/No)
Was the flare management plan followed?	**Yes**	(Yes/No/N/A)
Is the event exempt from a RC/CCA based on the answers above?	**No**	(Yes/No)

- If yes, skip section 5-7.

(5.) (60.108a(c)(6)(ix))

Root Cause Analysis: Describe in detail the Root Cause(s) of the Incident, to the extent determinable:

Did this discharge result from root causes identified in a previous analysis? **No** (Yes/No)

Vibration induced fatigue failure occurring directly above the gussets of the ¾" branch connection. Third party analysis was conducted on this connection and vibration was determined to be a concern. The following design factors likely contributed to this failure:

a. Branch connection was inadequately reinforced.
b. Branch connection was too long (extended upward from header approximately 18-24 inches).
c. Presence of un-necessary vent piping added mass to vibration system and likely amplified stress at failure point.
d. Heavy components (valves) located at top of extended branch connection as opposed to being lower towards the header.

(6.) (60.108a(c)(6)(ix))

Corrective Action Analysis: Include a description of the recommended corrective action(s) or an explanation of why corrective action is

Is corrective action required? **Yes** (Yes/No)

1) Conduct vibration analysis on all small bore connections near the MUG compressors to determine if vibration induced fatigue failure is still a concern after alterations.

2) Complete the removal of the vent line piping. (Most of the vent line piping was removed shortly after the incident, however some could not be isolated due to suspected leakage of the block valves.)

3) Provide recommendation for suspected leaking block valve replacement in 2018 turnaround.

(7.) (60.108a(c)(6)(x))

Corrective Action Schedule: Include corrective actions already completed within the first 45 days following the discharge. For those not completed, provide a schedule for implementation, including proposed commencement and completion dates.

1) Conduct vibration analysis on all small bore connections near the MUG compressors to determine if vibration induced fatigue failure is still a concern after alterations.
Commencement Date: 3/16/17
Estimated Completion Date: 6/1/17

2) Complete the removal of the vent line piping.
Commencement Date: 3/16/17
Estimated Completion Date: 12/31/18

3) Provide recommendation for suspected leaking block valve replacement in 2018 turnaround.
Commencement Date: 3/16/17
Estimated Completion Date: 9/1/17

(8.)

The measured or calculated cumulative quantity of gas discharged over the discharge duration.

Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.

		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	**Last hour of 24-hr Period**	**24-hr cumulative volume of flared gas above Baseline**	**TRS or H2S ppm (24-hr average, flow-weighted)**	**24-hr cumulative SO2**	**24-hr cumulative reduced sulfur**
		SCF	ppmv	lbs	lbs as H2S
2/7/2017 7:00	2/8/2017 6:00	0	0	0.0	0.0
2/7/2017 8:00	2/8/2017 7:00	1,067,647	662	2792.3	15.0
2/7/2017 9:00	2/8/2017 8:00	1,287,083	1427	3456.4	18.6
2/7/2017 10:00	2/8/2017 9:00	1,288,025	2083	3458.8	18.6
2/7/2017 11:00	2/8/2017 10:00	1,288,062	2380	3458.9	18.6
2/7/2017 12:00	2/8/2017 11:00	1,288,062	2380	3458.9	18.6
2/7/2017 13:00	2/8/2017 12:00	1,288,062	2380	3458.9	18.6
2/7/2017 14:00	2/8/2017 13:00	1,288,062	2380	3458.9	18.6
2/7/2017 15:00	2/8/2017 14:00	1,288,062	2380	3458.9	18.6
2/7/2017 16:00	2/8/2017 15:00	1,288,062	2380	3458.9	18.6
2/7/2017 17:00	2/8/2017 16:00	1,288,062	2380	3458.9	18.6
2/7/2017 18:00	2/8/2017 17:00	1,288,062	2380	3458.9	18.6
2/7/2017 19:00	2/8/2017 18:00	1,288,062	2380	3458.9	18.6
2/7/2017 20:00	2/8/2017 19:00	1,288,062	2380	3458.9	18.6
2/7/2017 21:00	2/8/2017 20:00	1,288,062	2380	3458.9	18.6
2/7/2017 22:00	2/8/2017 21:00	1,288,062	2380	3458.9	18.6
2/7/2017 23:00	2/8/2017 22:00	1,288,062	2380	3458.9	18.6
2/8/2017 0:00	2/8/2017 23:00	1,288,062	2380	3458.9	18.6
2/8/2017 1:00	2/9/2017 0:00	1,288,062	2380	3458.9	18.6
2/8/2017 2:00	2/9/2017 1:00	1,288,062	2380	3458.9	18.6
2/8/2017 3:00	2/9/2017 2:00	1,288,410	2429	3458.9	18.6
2/8/2017 4:00	2/9/2017 3:00	1,289,898	3473	3465.1	18.6
2/8/2017 5:00	2/9/2017 4:00	1,289,898	3473	3465.1	18.6
2/8/2017 6:00	2/9/2017 5:00	1,289,898	3473	3465.1	18.6
2/8/2017 7:00	2/9/2017 6:00	1,289,898	3473	3465.1	18.6
2/8/2017 8:00	2/9/2017 7:00	222,252	2811	672.8	3.6
2/8/2017 9:00	2/9/2017 8:00	2,815	2045	8.7	0.0

Subpart Ja Root Cause / Corrective Action Analysis

Impact Incident Number: **178790**

The information contained below satisfies the requirements of the NSPS Subpart Ja 60.108a(c)(6).

Report:	**Initial**		
Refinery:	**Valero (Meraux)**		
Incident Type:	**Flaring (Flow and SO2)**	Date of Event:	**2/13/17**
Emissions Source(s):	**North Flare (EPN 20-72, EQT 0035)**	Date Analysis Completed:	**3/16/17**

(1.) (60.108a(c)(6)(i))

A description of the Discharge:

On 2/13/17 at approximately 22:58, all four refinery boilers and the #3 Sulfur Recovery Unit (SRU) shutdown due to low boiler feed water pressure. Valero had just began the process of inventorying three steam generators in the Reformer Unit. The resulting reduction in refinery steam header pressure caused the shutdown of the Hydrocracker/Hydrotreater, ROSE Unit, Kerosene Hydrotreater, Ultra Low Sulfur Diesel Hydrotreater, and reduced the Crude Unit to minimum rates. Flaring exceeded 500,000 SCF/24 hours and 500 lbs of SO_2/24 hours. Excess SO_2 emissions occurred an multiple heaters and boilers and both the #2 and #3 SRU, but were less than 500 lbs of SO_2/24 hours

(2.) (60.108a(c)(6)(ii)) and (60.108a(c)(6)(ix))

and Time the discharge was first identified	**2/13/17 23:07**	
Date/Time the discharge had ceased	**2/14/17 3:44**	
Duration of Discharge (Calculated)	**4.6**	hrs

(3.) (60.108a(c)(6)(viii))

The steps taken to limit the emissions during the discharge:

Valero followed its Flare Minimization Plan and Operations Procedures to minimize the volume of this discharge.

(4.) (60.108a(c)(6)(xi))

Necessity of RC/CAA: Determine and state whether a RC/CAA is necessary:

Note: If the discharge was a result of a planned startup or shutdown, a RC/CAA analysis is not required if the flare management plan was followed.

Did the discharge result from a planned startup or shutdown?	**No**	(Yes/No)
Was the flare management plan followed?	**Yes**	(Yes/No/N/A)
Is the event exempt from a RC/CCA based on the answers above?	**No**	(Yes/No)

- **If yes, skip section 5-7.**

(5.) (60.108a(c)(6)(ix))

Root Cause Analysis: Describe in detail the Root Cause(s) of the Incident, to the extent determinable:

Did this discharge result from root causes identified in a previous analysis? **No** (Yes/No)

Root Cause(s):

1) Turbine driven Boiler Feed Water (PFW) Pump in Area 4 North (B-P-022A) tripped off line and the spillback control valve remained open causing low BFW system pressure alarms. No corrective actions were taken to address the low BFW system pressure.

2) The Area 4 South Electric BFW Pump was unavailable to "auto" start upon low pressure event due to the starter placed in the "off" position.

Contributing Factor(s):

1) The significance of the lower BFW pressure was not recognized.

2) Inadequate communication - lack of information in shift logs; lack of information transferred between shift teams.

3) Inaccurate information entered in Intelatrac rounds; Intelatrac alert settings improperly set.

4) The BFW flow control valves to the Reformer Steam Generators leaked during initial inventory.

(6.) (60.108a(c)(6)(ix))

Corrective Action Analysis: Include a description of the recommended corrective action(s) or an explanation of why corrective action is

Is corrective action required? **Yes** (Yes/No)

1) Modify the BFW Pumps (B-P-022A/B) spillback control valve control scheme to automatically close the spillback valves upon pump shutdown.

2) Review Intelatrac rounds for the Area 4 BFW system and revise as needed.

3) Conduct refresher training for all Area 4 Operators on BFW system and Intelatrac round changes.

4) Evaluate spillback protection for BFW Pumps and determine if any additional modifications are necessary.

5) Emphasize importance of electronic shift log and shift-to-shift communication.

(7.) (60.108a(c)(6)(x))

Corrective Action Schedule: Include corrective actions already completed within the first 45 days following the discharge. For those not completed, provide a schedule for implementation, including proposed commencement and completion dates.

1) Modify the BFW Pumps (B-P-022A/B) spillback control valve control scheme to automatically close the spillback valves upon pump shutdown.
Commencement Date: 3/16/17
Completed Date: 3/16/17

2) Review Intelatrac rounds for the Area 4 BFW system and revise as needed.
Commencement Date: 3/16/17
Estimated Completion Date: 4/30/17

3) Conduct refresher training for all Area 4 Operators on BFW system and Intelatrac round changes.
Commencement Date: 3/16/17
Estimated Completion Date: 5/31/17

4) Evaluate spillback protection for BFW Pumps and determine if any additional modifications are necessary.
Commencement Date: 3/16/17
Estimated Completion Date: 6/30/17

5) Emphasize importance of electronic shift log and shift-to-shift communication.
Commencement Date: 3/16/17
Estimated Completion Date: 6/1/17

(8.)

The measured or calculated cumulative quantity of gas discharged over the discharge duration.

Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.

		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	**Last hour of 24-hr Period**	**24-hr cumulative volume of flared gas above Baseline**	**TRS or H2S ppm (24-hr average, flow-weighted)**	**24-hr cumulative SO2**	**24-hr cumulative reduced sulfur**
		SCF	ppmv	lbs	lbs as H2S
2/12/2017 23:00	2/13/2017 22:00	148	170	0.1	0.0
2/13/2017 0:00	2/13/2017 23:00	2,114,167	361	1589.1	8.5
2/13/2017 1:00	2/14/2017 0:00	5,124,953	484	3062.3	16.5
2/13/2017 2:00	2/14/2017 1:00	7,872,740	585	4152.2	22.3
2/13/2017 3:00	2/14/2017 2:00	8,526,510	615	4231.4	22.7
2/13/2017 4:00	2/14/2017 3:00	8,555,025	685	4239.3	22.8
2/13/2017 5:00	2/14/2017 4:00	8,555,025	685	4239.3	22.8
2/13/2017 6:00	2/14/2017 5:00	8,555,025	685	4239.3	22.8
2/13/2017 7:00	2/14/2017 6:00	8,555,025	685	4239.3	22.8
2/13/2017 8:00	2/14/2017 7:00	8,555,025	685	4239.3	22.8
2/13/2017 9:00	2/14/2017 8:00	8,555,025	685	4239.3	22.8
2/13/2017 10:00	2/14/2017 9:00	8,555,025	685	4239.3	22.8
2/13/2017 11:00	2/14/2017 10:00	8,555,025	685	4239.3	22.8
2/13/2017 12:00	2/14/2017 11:00	8,555,025	685	4239.3	22.8
2/13/2017 13:00	2/14/2017 12:00	8,555,025	685	4239.3	22.8
2/13/2017 14:00	2/14/2017 13:00	8,555,025	685	4239.3	22.8
2/13/2017 15:00	2/14/2017 14:00	8,555,025	685	4239.3	22.8
2/13/2017 16:00	2/14/2017 15:00	8,555,025	685	4239.3	22.8
2/13/2017 17:00	2/14/2017 16:00	8,554,878	514	4239.2	22.8
2/13/2017 18:00	2/14/2017 17:00	8,555,259	579	4239.3	22.8
2/13/2017 19:00	2/14/2017 18:00	8,555,259	579	4239.3	22.8
2/13/2017 20:00	2/14/2017 19:00	8,555,259	579	4239.3	22.8
2/13/2017 21:00	2/14/2017 20:00	8,555,259	579	4239.3	22.8
2/13/2017 22:00	2/14/2017 21:00	8,570,760	664	4244.4	22.8
2/13/2017 23:00	2/14/2017 22:00	8,574,927	700	4245.0	22.8
2/14/2017 0:00	2/14/2017 23:00	6,460,908	510	2656.0	14.3
2/14/2017 1:00	2/15/2017 0:00	3,450,121	387	1182.8	6.4
2/14/2017 2:00	2/15/2017 1:00	702,334	286	92.9	0.5
2/14/2017 3:00	2/15/2017 2:00	48,565	256	13.7	0.1