



July 29, 2022

CERTIFIED: 7016 2710 0000 3305 5644

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 – 2nd Quarter 2022
Valero Refining - Meraux LLC, Agency Interest # 1238
2235 Jacob Drive, St. Bernard Parish, Meraux, LA
Title V Permit Numbers: 2500-00001-V19

Gentlemen,

Valero Refining, Meraux LLC is submitting 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 Second Quarter 2022.

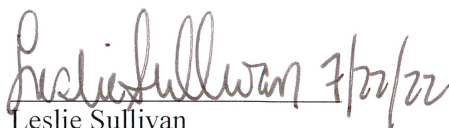
For this reporting period, the H₂S CEMS on the Area 6 Fuel Drum for Hydrocracker & Hydrotreater Charge Heaters (EPN 1-00, EQT 0009) had excess emissions greater than 1% of the total operating time, and the SO₂ and O₂ CEMS on #3 SRU Incinerator (EPN 5-00, EQT 0079) and the H₂S CEMS on the North Flare Stack (EPN 20-72, EQT 0035), North Flare Header had downtime greater than 5% of the total operating time. Valero was unable to perform a Relative Accuracy Test assessment on the H₂S CEMS due to it being down and will report this as a Title V deviation.

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. JC Martin 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,


Leslie Sullivan
Vice President and General Manager
Meraux Refinery

Enclosures

cc: Mr. Jeff Leonick, 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: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: SO₂ corrected to 0% O₂ shall not exceed 250 ppm on a 12-hour rolling average

Monitor Manufacturer and Model No.: Ametek 9900(SO₂)/Servomex Oxy 1800(O₂)

Date of Latest CMS Certification or Audit: RATA on 6/30/22

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

Total source operating time in reporting period: 760 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
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 Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
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: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: SO₂ corrected to 0% O₂ shall not exceed 250 ppm on a 12-hour rolling average.

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(SO₂)/ Magnos 206 (O₂)

Date of Latest CMS Certification or Audit: RATA on 6/28/22

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

Total source operating time in reporting period: 1,121 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
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 Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	76
d. Other known causes	50
e. Unknown causes	0
2. Total CMS Downtime	126
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	11.2 %

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: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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: RATA on 6/29/22

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); DHT Charge Heater (EPN 5-73, EQT 0058)

Total source operating time in reporting period: EQT 0010-1,445 hours, EQT 0011-1,382 hours, EQT 0033-1,145 hours, EQT 0058-881 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>All EQT's (hours)</i>
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 Summary¹				
1. CMS downtime in reporting period due to:	<i>EQT 0010 (hours)</i>	<i>EQT 001 (hours)</i>	<i>EQT 0033 (hours)</i>	<i>EQT 0058 (hours)</i>
a. Monitor equipment malfunctions	0	0	0	0
b. Non-Monitor equipment malfunctions	0	0	0	0
c. Quality assurance calibration	1	1	2	1
d. Other known causes	20	13	28	11
e. Unknown causes	0	0	0	0
2. Total CMS Downtime	21	14	30	12
3. Total duration of CMS Downtime x (100) [Total source operating	1.5 %	1.0 %	2.6 %	1.4 %

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: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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: RATA on 6/28/22

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 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); ROSE Heater (EPN 1-80, EQT 0014)

Total source operating time in reporting period: EQT 0013-987 hours; EQT 0022-964 hours; EQT 0024-903 hours; EQT 0027-895 hours; EQT 0028-748 hours; EQT 0029-736 hours; EQT 0014-160 hours

Emissions Data Summary¹			
	<i>EQT 0014 (hours)</i>	<i>EQT's 0028, 0029 (hours)</i>	<i>All Other EQT's (hours)</i>
1. Duration of excess emissions in reporting period due to:			
a. Startup/shutdown	0	0	0
b. Control equipment problems	0	0	0
c. Process problems	0	0	0
d. Other known causes	0	3	3
e. Unknown causes	0	0	0
2. Total duration of excess emission	0	3	3
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.0 %	0.4 %	0.3 %

CMS Performance Summary¹		
	<i>EQT 0014 (hours)</i>	<i>All Other EQT's (hours)</i>
1. CMS downtime in reporting period due to:		
a. Monitor equipment malfunctions	0	0
b. Non-Monitor equipment malfunctions	0	0
c. Quality assurance calibration	1	1
d. Other known causes	0	0
e. Unknown causes	0	0
2. Total CMS Downtime	1	1
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.6 %	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: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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: RATA on 6/28/22

Process Unit(s) Description: Area 2 Fuel Drum for: Benzene Recovery Unit Reboiler (EPN 1-09, EQT 0127); NHT Charge Heater (EPN 1-17, EQT 0159)

Total source operating time in reporting period: EQT 0127-0 hours; EQT 0159-913 hours

Emissions Data Summary¹		
	<i>EQT 0127 (hours)</i>	<i>EQT 0159 (hours)</i>
1. Duration of excess emissions in reporting period due to:		
a. Startup/shutdown	0	0
b. Control equipment problems	0	0
c. Process problems	0	0
d. Other known causes	0	3
e. Unknown causes	0	0
2. Total duration of excess emission	0	3
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.0 %	0.3 %

CMS Performance Summary¹		
	<i>EQT 0127 (hours)</i>	<i>EQT 0159 (hours)</i>
1. CMS downtime in reporting period due to:		
a. Monitor equipment malfunctions	0	0
b. Non-Monitor equipment malfunctions	0	0
c. Quality assurance calibration	0	1
d. Other known causes	0	0
e. Unknown causes	0	0
2. Total CMS Downtime	0	1
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.0 %	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: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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: RATA on 6/29/22

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

Total source operating time in reporting period: 0 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
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 Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
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: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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: RATA on 6/29/22

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: 922 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	18
e. Unknown causes	0
2. Total duration of excess emission	18
3. Total duration of excess emissions x (100) [Total source operating time] ²	1.8 %

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
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: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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: RATA on 6/29/22

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 0030-1,741 hours; EQT 0048-0 hours³

Emissions Data Summary¹		
	<i>EQT 0030 (hours)</i>	<i>EQT 0048 (hours)</i>
1. Duration of excess emissions in reporting period due to:		
a. Startup/shutdown	0	0
b. Control equipment problems	0	0
c. Process problems	0	0
d. Other known causes	6	0
e. Unknown causes	0	0
2. Total duration of excess emission	6	0
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.3 %	0.0 %

CMS Performance Summary¹		
	<i>EQT 0030 (hours)</i>	<i>EQT 0048 (hours)</i>
1. CMS downtime in reporting period due to:		
a. Monitor equipment malfunctions	0	0
b. Non-Monitor equipment malfunctions	0	0
c. Quality assurance calibration	2	0
d. Other known causes	11	0
e. Unknown causes	0	0
2. Total CMS Downtime	13	0
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.7 %	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.

³ Boiler B-6 ran on purchased natural gas for the entire Quarter.

**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 4/1/22 to 6/30/22

Date submitted: 7/30/22

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 AO2000 Uras 26(NOx)/ Magnos 28 (O₂)

Date of Latest CMS Certification or Audit: RATA on 6/24/22

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

Total source operating time in reporting period: 1,741 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
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 Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
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: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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 AO2000 Uras 26(NOx)/ Magnos 28 (O₂)

Date of Latest CMS Certification or Audit: RATA on 6/24/22

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

Total source operating time in reporting period: 1,953 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
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 Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
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: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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 (NO_x)/(O₂)

Date of Latest CMS Certification or Audit: RATA on 6/24/22

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

Total source operating time in reporting period: 1,445 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
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 Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	1
d. Other known causes	8
e. Unknown causes	0
2. Total CMS Downtime	8
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.6 %

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 4/1/22 to 6/30/22

Date submitted: 7/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: Nitrogen Oxide corrected to 0% O₂ shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: Thermo Environmental 42i (NO_x)/(O₂)

Date of Latest CMS Certification or Audit: CGA on 3/3/22

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

Total source operating time in reporting period: 0 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
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 Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
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: Ja

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: Nitrogen Oxide corrected to 0% O₂ shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NO_x)/ Magnos 206 (O₂)

Date of Latest CMS Certification or Audit: RATA on 6/28/22

Process Unit(s) Description: NHT Charge Heater (EPN 1-17, EQT 0159)

Total source operating time in reporting period: 878 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
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 Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
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 4/1/22 to 6/30/22

Date submitted: 7/30/22

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 (O₂)

Date of Latest CMS Certification or Audit: RATA on 6/22/22

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

Total source operating time in reporting period: 987 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
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 Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
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 4/1/22 to 6/30/22

Date submitted: 7/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NOx)/ Magnos 206 (O₂)

Date of Latest CMS Certification or Audit: RATA on 6/27/22

Process Unit(s) Description: MDH Product and Fractionator Heaters (EPN 2-92, EQT 0033)

Total source operating time in reporting period: 1,145 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
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 Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
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: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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 3/9/22

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

Total source operating time in reporting period: 2,184 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
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 Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	731
e. Unknown causes	0
2. Total CMS Downtime	731
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	33.5 %

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: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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: RATA on 6/29/22

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

Total source operating time in reporting period: 2,184 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
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 Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
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: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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: RATA on 6/29/22

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

Total source operating time in reporting period: 2,184 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
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 Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
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: **Total Sulfur**

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

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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: RATA on 6/29/22

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

Total source operating time in reporting period: 2,184 hours

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	4
d. Other known causes	35
e. Unknown causes	0
2. Total CMS Downtime	39
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	1.8 %

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 4/1/22 to 6/30/22

Date submitted: 7/30/22

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: RATA on 6/29/22

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

Total source operating time in reporting period: 2,184 hours

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	23
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 4/1/22 to 6/30/22

Date submitted: 7/30/22

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: RATA on 6/29/22

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

Total source operating time in reporting period: 2,184 hours

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	22
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: **Flow**

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

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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: 2,184 hours

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
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 4/1/22 to 6/30/22

Date submitted: 7/30/22

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: 2,184 hours

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
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 4/1/22 to 6/30/22

Date submitted: 7/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: SICK FLOWSIC100 Flare

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: 2,184 hours

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
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	60
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	2.7 %

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))

On 7/26/21, the computer processor for SO₂ CEMS on the #2 SRU Incinerator (EPN 1-93, EQT 0019) failed and could not be repaired. Valero installed a temporary rental SO₂ analyzer on 7/27/21. The original O₂ analyzer was retained. The rental SO₂ analyzer was in operation for the entire 2nd Quarter 2022. Valero will purchase new SO₂ and O₂ analyzers and estimates they will be installed in the 3rd Quarter 2022.

For all other CMS covered in this report, no changes were made in the 2nd Quarter 2022 to CMS, process, or controls.

I certify that the information contained in this report is true, accurate, and complete.

Dan Patnoad

Name

D. Patnoad

Signature

Sr. Environmental Engineer

Title

**GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

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

Pollutant: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: SO₂ corrected to 0% O₂ shall not exceed 250 ppm on a 12-hour rolling average

Monitor Manufacturer and Model No.: Ametek 9900(SO₂)/Servomex Oxy 1800(O₂)

Date of Latest CMS Certification or Audit: RATA on 6/30/22

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

Total source operating time in reporting period: 760 hours

Ja EXCESS EMISSIONS						
Date	Start	End	Duration (hours)	Max 12-HRA (ppm)	Cause	Corrective Action
None.						
TOTAL			0			

Ja CMS PERFORMANCE¹						
Date	Start	End	Duration (hours)	Cause	Corrective Action	
None.						
TOTAL			0			

¹In 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: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: SO₂ corrected to 0% O₂ shall not exceed 250 ppm on a 12-hour rolling average.

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(SO₂)/ Magnos 206 (O₂)

Date of Latest CMS Certification or Audit: RATA on 6/28/22

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

Total source operating time in reporting period: 1,121 hours

Ja EXCESS EMISSIONS						
Date	Start	End	Duration (hours)	Max 12-HRA (ppm)	Cause	Corrective Action
None.						
TOTAL			0			

Ja CMS PERFORMANCE ¹						
Date	Start	End	Duration (hours)	Cause	Corrective Action	
6/17/22	07:00		76	SO ₂ analyzer out of control due to liquids in the sample system that was restricting flow of the calibration gas. Valero did not notice the lack of daily calibrations until 6/20/22 due to an error on the daily calibration log spreadsheet that was repeating a good calibration from a day in the past.	Valero blew out the sample system to remove the liquids and calibrated the analyzer.	
6/20/22		11:00				
6/20/22	15:00		50	O ₂ analyzer sensor failed. Replacement sensor was not on site.	Valero obtained and installed a replacement O ₂ sensor, calibrated it, and placed it in service.	
6/22/22		17:00				
TOTAL			126			

¹In 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: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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: RATA on 6/28/22

Process Unit(s) Description: Area 2 Fuel Drum for: Benzene Recovery Unit Reboiler (EPN 1-09, EQT 0127); NHT Charge Heater (EPN 1-17, EQT 0159)

Total source operating time in reporting period: EQT 0127-0 hours; EQT 0159-913 hours

Ja EXCESS EMISSIONS – EQT 0159						
Date	Start	End	Duration (hours)	Max 3-HRA (ppm)	Cause	Corrective Action
6/5/22	02:00	05:00	3	173	H ₂ S greater than 162 ppm, 3-HRA, with SO ₂ emissions less than 500 lbs/day during catalyst sulfiding of the Hydrocracker Unit. The investigation of this incident is not yet complete. Valero will report root cause and corrective actions in the 3 rd Quarter NSPS Excess Emissions & CEM Performance Report.	
TOTAL			3			

Ja CMS PERFORMANCE¹ – EQT 0159						
Date	Start	End	Duration (hours)	Cause	Corrective Action	
6/28/22	15:00	16:00	1	Relative Accuracy Test Audit	N/A	
TOTAL			1			

¹In 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: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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: RATA on 6/29/22

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: 922 hours

Ja EXCESS EMISSIONS – EQT 0159						
Date	Start	End	Duration (hours)	Max 3-HRA (ppm)	Cause	Corrective Action
6/5/22	00:00	18:00	18	300	H ₂ S greater than 162 ppm, 3-HRA, with SO ₂ emissions less than 500 lbs/day during catalyst sulfiding of the Hydrocracker Unit. The investigation of this incident is not yet complete. Valero will report root cause and corrective actions in the 3 rd Quarter NSPS Excess Emissions & CEM Performance Report.	
TOTAL			18			

Ja CMS PERFORMANCE¹ – EQT 0159						
Date	Start	End	Duration (hours)	Cause	Corrective Action	
6/29/22	17:00	18:00	1	Relative Accuracy Test Audit	N/A	
TOTAL			1			

**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 4/1/22 to 6/30/22

Date submitted: 7/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: Nitrogen Oxide corrected to 0% O₂ shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: Thermo Environmental 42i (NO_x)/(O₂)

Date of Latest CMS Certification or Audit: CGA on 3/3/22

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

Total source operating time in reporting period: 0 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			

¹In 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 4/1/22 to 6/30/22

Date submitted: 7/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: Nitrogen Oxide corrected to 0% O₂ shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: ABB Limas11(NOx), Magnos27 (O₂)

Date of Latest CMS Certification or Audit: RATA on 6/28/22

Process Unit(s) Description: NHT Charge Heater (EPN 1-17, EQT 0159)

Total source operating time in reporting period: 878 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			

¹In 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: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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 3/9/22

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

Total source operating time in reporting period: 2,184 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
5/31/22	11:00	12:00	1	Annual preventative maintenance.	N/A
5/31/22	14:00		730	Analyzer failed and could not be repaired. Valero sent the laser measurement cell of this analyzer back to the manufacturer to be rebuilt and aligned. This analyzer was unavailable for the remainder of the 2 nd Quarter 2022.	The analyzer was placed back in service on July, 12, 2022.
7/1/22		00:00			
TOTAL			731		

¹Due to the physical arrangement of the headers supplying the North Flare Stack (EPN 20-72, EQT 0035), two analyzers are required to measure H₂S 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.

²In 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: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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: RATA on 6/29/22

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

Total source operating time in reporting period: 2,184 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	
None.						
TOTAL			0			

¹Due to the physical arrangement of the headers supplying the North Flare Stack (EPN 20-72, EQT 0035), two analyzers are required to measure H₂S 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.

²In 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: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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: RATA on 6/29/22

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

Total source operating time in reporting period: 2,184 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	
4/12/22	17:00	18:00	1	Adjusted for calibration drift.	N/A	
TOTAL			1			

¹In 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 4/1/22 to 6/30/22

Date submitted: 7/30/22

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: RATA on 6/29/22

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

Total source operating time in reporting period: 2,184 hours

Ja CMS PERFORMANCE ²					
Date	Start	End	Duration (hours)	Cause	Corrective Action
4/13/22	19:00		13	Analyzer shutdown while performing maintenance on electrical power distribution system.	Analyzer started up, calibrated, and placed in service.
4/14/22		08:00			
4/17/22	04:00	17:00	13	Analyzer not sampling due to liquids accumulating in the sample system while steaming and chemical cleaning of the North Flare Header.	Once steaming and chemical cleaning was complete, Valero blew down the sample system to remove liquids, calibrated the analyzer, and returned it to service.
4/18/22	09:00	10:00	1	Analyzer off sampling while blowing down sample system to remove residual liquids.	Analyzer calibrated and returned to service.
6/8/22	08:00	17:00	9	Offline for annual preventative maintenance.	Analyzer calibrated and returned to service.
6/14/22	08:00	09:00	1	Adjusted for calibration drift.	N/A
6/17/22	10:00	11:00	1	Adjusted for calibration drift.	N/A
6/21/22	08:00	09:00	1	Adjusted for calibration drift.	N/A
TOTAL			39		

¹In 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 4/1/22 to 6/30/22

Date submitted: 7/30/22

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: RATA on 6/29/22

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

Total source operating time in reporting period: 2,184 hours

Ja CMS PERFORMANCE ²					
Date	Start	End	Duration (hours)	Cause	Corrective Action
4/13/22	19:00		13	Analyzer shutdown while performing maintenance on electrical power distribution system.	Analyzer started up, calibrated, and placed in service.
4/14/22		08:00			
6/5/22	10:00	11:00	1	Analyzer calibration verified due to unexpected readings in Hydrocracker Flare Header during catalyst sulfiding.	Analyzer calibration was within allowable tolerances.
6/8/22	08:00	17:00	9	Offline for annual preventative maintenance.	Analyzer calibrated and returned to service.
TOTAL			23		

¹In 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 4/1/22 to 6/30/22

Date submitted: 7/30/22

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: RATA on 6/29/22

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

Total source operating time in reporting period: 2,184 hours

Ja CMS PERFORMANCE²					
Date	Start	End	Duration (hours)	Cause	Corrective Action
4/13/22	19:00		13	Analyzer shutdown while performing maintenance on electrical power distribution system.	Analyzer started up, calibrated, and placed in service.
4/14/22		08:00			
6/8/22	08:00	17:00	9	Offline for annual preventative maintenance.	Analyzer calibrated and returned to service.
TOTAL			22		

¹In 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 4/1/22 to 6/30/22

Date submitted: 7/30/22

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: 2,184 hours

Ja CMS PERFORMANCE²					
Date	Start	End	Duration (hours)	Cause	Corrective Action
None.					
TOTAL			0		

¹In 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 4/1/22 to 6/30/22

Date submitted: 7/30/22

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: 2,184 hours

Ja CMS PERFORMANCE ²					
Date	Start	End	Duration (hours)	Cause	Corrective Action
None.					
TOTAL			0		

¹In 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 4/1/22 to 6/30/22

Date submitted: 7/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: SICK FLOWSIC100 Flare

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: 2,184 hours

Ja CMS PERFORMANCE ²					
Date	Start	End	Duration (hours)	Cause	Corrective Action
5/14/22	22:00		60	Flowmeter went into alarm and was reading extremely high flows that were obviously incorrect. Valero troubleshooting was unable to clear the alarm, so Valero contacted the manufacturer and scheduled a site visit. Prior to this visit, the alarm cleared and the meter began functioning normally. On 5/23, the technician checked out the meter and observed it operating in actual flow conditions. No issues were identified. The possible cause of this malfunction was determined to be liquid or particulate interference with one or more of the flowmeter probes.	The probes were inspected and cleaned and the meter was checked out by the manufacturer technician.
5/17/22		10:00			
TOTAL			60		

¹In 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: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: SO₂ corrected to 0% O₂ shall not exceed 250 ppm on a 12-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 9900(SO₂)/Servomex Oxy 1800(O₂)

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 (RATA):

SO ₂ corrected to 0% O ₂	
Date of Audit	6/30/22
Reference Method	EPA Method 6C/ EPA Method 3A
Average RM Value (ppmv)	84.42
Average CEM Value (ppmv)	76.51
Accuracy	5.37 %
Limit	< 10%

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: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: SO₂ corrected to 0% O₂ shall not exceed 250 ppm on a 12-hour rolling average.

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(SO₂)/ Magnos 206 (O₂)

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 (RATA):

SO ₂ corrected to 0% O ₂	
Date of Audit	6/28/22
Reference Method	EPA Method 6C/ EPA Method 3A
Average RM Value (ppmv)	50.60
Average CEM Value (ppmv)	42.36
Accuracy	3.97 %
Limit	< 10%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: 6/17/22 07:00 – 6/20/22 11:00
2. Number of Days 3.2 (76 hours)

B. Corrective Actions: SO₂ analyzer out of control due to liquids in the sample system that was restricting flow of the calibration gas. Valero did not notice the lack of daily calibrations until 6/20/22 due to an error on the daily calibration log spreadsheet that was repeating a good calibration from a day in the past. Valero blew out the sample system to remove the liquids and calibrated the analyzer.

DATA ASSESSMENT REPORT

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

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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); Boiler B-7 (EPN 1-07, EQT 0011); MDH Product and Fractionator Heaters (EPN 2-92, EQT 0033); DHT Charge Heater (EPN 5-73, EQT 0058)

CEM Sampling Location: Area 1 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (RATA):

	<u>H₂S #1</u>	<u>H₂S #2</u>
Date of Audit	6/29/22	6/29/22
Reference Method	EPA Method 11 (Alternate RATA)	EPA Method 11 (Alternate RATA)
Average RM Value (ppmv)	75.8	162.2
Average CEM Value (ppmv)	74.4	157.3
Accuracy	1.9 %	3.0 %
Limit	< 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: **H₂S**

Applicable NSPS Subpart: J and Ja

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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: 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); Benzene Recovery Unit Reboiler (EPN 1-09, EQT 0127); NHT Charge Heater (EPN 1-17, EQT 0159)

CEM Sampling Location: Area 2 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (RATA):

	<u>H₂S #1</u>	<u>H₂S #2</u>
Date of Audit	6/28/22	6/28/22
Reference Method	EPA Method 11 (Alternate RATA)	EPA Method 11 (Alternate RATA)
Average RM Value (ppmv)	75.8	162.2
Average CEM Value (ppmv)	81.9	166.2
Accuracy	8.0 %	2.5 %
Limit	< 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: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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 (RATA):

	<u>H₂S #1</u>	<u>H₂S #2</u>
Date of Audit	6/29/22	6/29/22
Reference Method	EPA Method 11 (Alternate RATA)	EPA Method 11 (Alternate RATA)
Average RM Value (ppmv)	75.8	162.2
Average CEM Value (ppmv)	73.7	156.8
Accuracy	2.8 %	3.3 %
Limit	< 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: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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 (RATA):

	<u>H₂S #1</u>	<u>H₂S #2</u>
Date of Audit	6/29/22	6/29/22
Reference Method	EPA Method 11 (Alternate RATA)	EPA Method 11 (Alternate RATA)
Average RM Value (ppmv)	75.8	162.2
Average CEM Value (ppmv)	72.3	156.4
Accuracy	4.7 %	3.6 %
Limit	< 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: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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 (RATA):

	<u>H₂S #1</u>	<u>H₂S #2</u>
Date of Audit	6/29/22	6/29/22
Reference Method	EPA Method 11 (Alternate RATA)	EPA Method 11 (Alternate RATA)
Average RM Value (ppmv)	75.8	162.2
Average CEM Value (ppmv)	71.8	168.4
Accuracy	5.3 %	3.9 %
Limit	< 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 4/1/22 to 6/30/22

Date submitted: 7/30/22

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 AO2000 Uras 26(NO_x)/ Magnos 28 (O₂)

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 (RATA):

NO _x lb/MMBtu	
Date of Audit	6/24/22
Reference Method	EPA Method 7E / EPA Method 3A
Average RM Value	0.035 lb/MMBtu
Average CEM Value	0.031 lb/MMBtu
Accuracy	2.0 %
Limit	< 10 %

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 4/1/22 to 6/30/22

Date submitted: 7/30/22

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 AO2000 Uras 26(NO_x)/ Magnos 28 (O₂)

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 (RATA):

NO _x lb/MMBtu	
Date of Audit	6/24/22
Reference Method	EPA Method 7E / EPA Method 3A
Average RM Value	0.023 lb/MMBtu
Average CEM Value	0.026 lb/MMBtu
Accuracy	1.7 %
Limit	< 10 %

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 4/1/22 to 6/30/22

Date submitted: 7/30/22

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 (NO_x)/(O₂)

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 (RATA):

NO _x lb/MMBtu	
Date of Audit	6/24/22
Reference Method	EPA Method 7E / EPA Method 3A
Average RM Value	0.034 lb/MMBtu
Average CEM Value	0.034 lb/MMBtu
Accuracy	0.5 %
Limit	< 10 %

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 4/1/22 to 6/30/22

Date submitted: 7/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: Nitrogen Oxide corrected to 0% O₂ shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: Thermo Environmental Model 42i (NO_x)/(O₂)

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 (RATA):

Process unit did not operate in the 2nd Quarter 2022.

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 4/1/22 to 6/30/22

Date submitted: 7/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: Nitrogen Oxide corrected to 0% O₂ shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NO_x)/ Magnos 206 (O₂)

Process Unit(s) Description: NHT Charge Heater (EPN 1-17, EQT 0159)

CEM Sampling Location: NHT Charge Heater

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

I. ACCURACY ASSESSMENT RESULTS (RATA):

	NO _x , ppmvd	O ₂ , vol % (dry)
Date of Audit	6/28/22	6/28/22
Reference Method	EPA Method 7E	EPA Method 3A
Average RM Value	21.08 ppmvd	5.38 vol %
Average CEM Value	21.75 ppmvd	5.49 vol %
Accuracy	4.2 %	4.1 %
Limit	< 20 %	< 20 %

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 4/1/22 to 6/30/22

Date submitted: 7/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: ABB Limas11 (NO_x), Magnos27 (O₂)

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 (RATA):

	NO _x , ppmvd	O ₂ , vol % (dry)
Date of Audit	6/22/22	6/22/22
Reference Method	EPA Method 7E	EPA Method 3A
Average RM Value	11.50 ppmvd	6.58 vol %
Average CEM Value	13.04 ppmvd	6.62 vol %
Accuracy	17.7 %	0.7 %
Limit	< 20 %	< 20 %

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 4/1/22 to 6/30/22

Date submitted: 7/30/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NOx)/ Magnos 206 (O₂)

Process Unit(s) Description: MDH Product and Fractionator Heaters (EPN 2-92, EQT 0033)

CEM Sampling Location: MDH Product and Fractionator Heaters

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

I. ACCURACY ASSESSMENT RESULTS (RATA):

	NO _x , ppmvd	O ₂ , vol % (dry)
Date of Audit	6/27/22	6/27/22
Reference Method	EPA Method 7E	EPA Method 3A
Average RM Value	15.10 ppmvd	8.37 vol %
Average CEM Value	14.44 ppmvd	8.40 vol %
Accuracy	6.5 %	0.5 %
Limit	< 20 %	< 20 %

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: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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 (RATA):

Valero was unable to perform a RATA on this analyzer due to the failure of the analyzer on May 31, 2022. Valero sent the laser measurement cell of this analyzer back to the manufacturer to be rebuilt and aligned. This analyzer was unavailable for the remainder of the 2nd Quarter 2022. The analyzer was placed back in service on July, 12, 2022.

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: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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 (RATA):

	<u>H₂S</u>
Date of Audit	6/29/22
Reference Method	EPA Method 11
Average RM Value (ppmv)	18.70 ppmv
Average CEM Value (ppmv)	18.87 ppmv
Accuracy	4.2 %
Limit	< 10 %

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: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 4/1/22 to 6/30/22

Date submitted: 7/30/22

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 (RATA):

	<u>H₂S</u>
Date of Audit	6/29/22
Reference Method	EPA Method 11
Average RM Value (ppmv)	0.99 ppmv
Average CEM Value (ppmv)	0.46 ppmv
Accuracy	1.8 %
Limit	< 10 %

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 4/1/22 to 6/30/22

Date submitted: 7/30/22

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 (RATA):

	<u>H₂S #1</u>	<u>H₂S #2</u>
Date of Audit	6/29/22	6/29/22
Reference Method	PS 2	PS 2
	Alternate RATA	Alternate RATA
Average RM Value (ppmv)	1030.0	5559.0 ¹
Average CEM Value (ppmv)	1003.1	5575.7
Accuracy	2.6 %	0.3 %
Limit	< 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 4/1/22 to 6/30/22

Date submitted: 7/30/22

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 (RATA):

	<u>H₂S #1</u>	<u>H₂S #2</u>
Date of Audit	6/29/22	6/29/22
Reference Method	PS 2	PS 2
	Alternate RATA	Alternate RATA
Average RM Value (ppmv)	1030.0	5559.0 ¹
Average CEM Value (ppmv)	984.4	5743.9
Accuracy	4.4 %	3.3 %
Limit	< 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 4/1/22 to 6/30/22

Date submitted: 7/30/22

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 (RATA):

	<u>H₂S #1</u>	<u>H₂S #2</u>
Date of Audit	6/29/22	6/29/22
Reference Method	PS 2	PS 2
	Alternate RATA	Alternate RATA
Average RM Value (ppmv)	1030.0	5559.0 ¹
Average CEM Value (ppmv)	1007.3	5825.4
Accuracy	2.2 %	4.8 %
Limit	< 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 AnalysisIncident Number: **454383***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)
 Emissions Source(s): North Flare (EPN 20-72, EQT 0035)

Date of Event: 2/20/22
 Date Analysis Completed: 3/25/22

(1.) (60.108a(c)(6)(i))**A description of the Discharge:**

On February 20 2022 at approximately 03:30, Valero experienced an automatic shutdown of the Recycle Gas Compressor in the Hydrocracker Unit due to a mechanical failure of the Recycle Gas Compressor steam turbine. Valero visually inspected the steam turbine and determined that it was damaged and could not be restarted. The loss of the Recycle Gas Compressor initiated an automatic depressurization of the Hydrocracker Unit to the North Flare. Additional venting to the flare was required to cooldown and place the unit in a safe condition.

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

Date and Time the discharge was first identified 2/20/22 3:30
 Date/Time the discharge had ceased 2/26/22 18:20
 Duration of Discharge (Calculated) 158.8 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 flared from this discharge. During periods of Nitrogen venting, additional supplemental natural gas was required to comply with the Net Heating Value of the Combustion Zone limit (> 270 Btu/scf) of 40 CFR 63.670, that became effective on January 30, 2019.

(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)

Valero determined the root cause of this discharge to be the mechanical failure of the steam turbine that drives the Recycle Gas Compressor. Valero believes that this mechanical failure was caused by a crack on the 3rd stage wheel, a crack on the turbine shaft, and the governor controller not properly controlling the speed of the steam turbine during steam system pressure transients due to a stuck feedback arm and slow response time. Valero has sent the steam turbine to a 3rd party for detailed forensic analysis.

(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) Modify preventative maintenance/long range planning to include a more detailed inspection of the steam turbine and include replacement of the steam turbine every 4-6 years.
- 2) Install a new servo control system and rack feedback arm for the governor controller.
- 3) Design an upgrade for the governor controller system.
- 4) Review the detailed forensic analysis of the steam turbine once it is complete and determine if any further corrective actions are required.



(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 preventative maintenance schedule and long range planning to include a more detailed inspection of the steam turbine and replacement of the steam turbine every 4-6 years.

Commencement Date: 3/25/22

Completed Date: 7/7/22

2) Install a new servo control system and rack feedback arm for the governor controller.

Completed Date: 3/29/22

2) Design an upgrade for the governor controller system.

Commencement Date: 3/25/22

Estimated Completion Date: 12/6/22

3) Review the detailed forensic analysis of the steam turbine once it is complete and determine if any further corrective actions are required.

Commencement Date: 3/25/22

Estimated Completion Date: Extended to 8/2/22

(8.)					
The measured or calculated cumulative quantity of gas discharged over the discharge duration.					
<i>Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.</i>					
		(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
2/19/22 3:00	2/20/22 2:00	107,313	3	0.2	0.0
2/19/22 4:00	2/20/22 3:00	1,743,030	295	80.2	0.4
2/19/22 5:00	2/20/22 4:00	2,594,156	286	120.7	0.6
2/19/22 6:00	2/20/22 5:00	3,179,253	1593	276.6	1.5
2/19/22 7:00	2/20/22 6:00	3,768,660	3938	664.8	3.6
2/19/22 8:00	2/20/22 7:00	4,175,400	2845	859.6	4.6
2/19/22 9:00	2/20/22 8:00	4,510,202	2533	1003.1	5.4
2/19/22 10:00	2/20/22 9:00	4,787,404	2752	1132.8	6.1
2/19/22 11:00	2/20/22 10:00	5,038,748	2179	1226.3	6.6
2/19/22 12:00	2/20/22 11:00	5,254,338	2018	1301.0	7.0
2/19/22 13:00	2/20/22 12:00	5,505,216	1485	1364.6	7.3
2/19/22 14:00	2/20/22 13:00	5,666,134	680	1383.6	7.4
2/19/22 15:00	2/20/22 14:00	5,741,861	215	1386.6	7.5
2/19/22 16:00	2/20/22 15:00	5,816,453	217	1389.6	7.5
2/19/22 17:00	2/20/22 16:00	5,915,749	101	1391.4	7.5
2/19/22 18:00	2/20/22 17:00	5,918,058	75	1391.5	7.5
2/19/22 19:00	2/20/22 18:00	5,956,142	1289	1401.5	7.5
2/19/22 20:00	2/20/22 19:00	5,984,171	287	1403.3	7.5
2/19/22 21:00	2/20/22 20:00	5,984,157	62	1403.3	7.5
2/19/22 22:00	2/20/22 21:00	5,993,695	1959	1409.4	7.6
2/19/22 23:00	2/20/22 22:00	6,038,935	2995	1436.2	7.7
2/20/22 0:00	2/20/22 23:00	6,254,053	719	1462.7	7.9
2/20/22 1:00	2/21/22 0:00	6,484,147	468	1481.1	8.0
2/20/22 2:00	2/21/22 1:00	6,718,618	395	1497.0	8.0
2/20/22 3:00	2/21/22 2:00	6,951,058	339	1510.5	8.1
2/20/22 4:00	2/21/22 3:00	5,549,933	311	1443.0	7.8
2/20/22 5:00	2/21/22 4:00	4,934,682	299	1414.5	7.6
2/20/22 6:00	2/21/22 5:00	4,584,335	296	1270.5	6.8
2/20/22 7:00	2/21/22 6:00	4,231,036	293	894.1	4.8
2/20/22 8:00	2/21/22 7:00	4,062,275	292	711.2	3.8
2/20/22 9:00	2/21/22 8:00	3,965,926	292	579.6	3.1
2/20/22 10:00	2/21/22 9:00	3,928,746	292	461.9	2.5
2/20/22 11:00	2/21/22 10:00	3,912,564	292	380.1	2.0
2/20/22 12:00	2/21/22 11:00	3,843,571	286	312.8	1.7
2/20/22 13:00	2/21/22 12:00	3,593,834	81	249.3	1.3
2/20/22 14:00	2/21/22 13:00	3,580,548	572	245.1	1.3
2/20/22 15:00	2/21/22 14:00	3,609,287	1022	261.2	1.4
2/20/22 16:00	2/21/22 15:00	3,633,055	1136	278.3	1.5
2/20/22 17:00	2/21/22 16:00	3,716,535	600	295.4	1.6
2/20/22 18:00	2/21/22 17:00	3,917,538	475	311.9	1.7
2/20/22 19:00	2/21/22 18:00	4,129,287	379	318.0	1.7
2/20/22 20:00	2/21/22 19:00	4,334,637	379	331.4	1.8
2/20/22 21:00	2/21/22 20:00	4,582,614	339	345.6	1.9
2/20/22 22:00	2/21/22 21:00	4,854,829	288	353.4	1.9
2/20/22 23:00	2/21/22 22:00	5,147,839	231	339.8	1.8
2/21/22 0:00	2/21/22 23:00	5,319,630	202	326.5	1.8
2/21/22 1:00	2/22/22 0:00	5,491,572	179	320.2	1.7
2/21/22 2:00	2/22/22 1:00	5,656,592	183	316.6	1.7
2/21/22 3:00	2/22/22 2:00	5,834,023	171	314.9	1.7

(8.)					
The measured or calculated cumulative quantity of gas discharged over the discharge duration.					
<i>Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.</i>					
		(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
2/21/22 4:00	2/22/22 3:00	5,966,835	178	313.5	1.7
2/21/22 5:00	2/22/22 4:00	6,101,444	167	311.8	1.7
2/21/22 6:00	2/22/22 5:00	6,224,996	177	310.6	1.7
2/21/22 7:00	2/22/22 6:00	6,344,088	186	310.0	1.7
2/21/22 8:00	2/22/22 7:00	6,464,260	170	308.4	1.7
2/21/22 9:00	2/22/22 8:00	6,597,205	148	305.7	1.6
2/21/22 10:00	2/22/22 9:00	6,810,808	159	305.8	1.6
2/21/22 11:00	2/22/22 10:00	7,079,289	173	308.7	1.7
2/21/22 12:00	2/22/22 11:00	7,395,888	171	314.6	1.7
2/21/22 13:00	2/22/22 12:00	7,748,183	183	325.4	1.7
2/21/22 14:00	2/22/22 13:00	7,927,273	186	320.9	1.7
2/21/22 15:00	2/22/22 14:00	8,032,459	251	310.8	1.7
2/21/22 16:00	2/22/22 15:00	8,102,852	290	299.2	1.6
2/21/22 17:00	2/22/22 16:00	8,093,848	288	288.9	1.6
2/21/22 18:00	2/22/22 17:00	8,079,286	258	280.7	1.5
2/21/22 19:00	2/22/22 18:00	8,036,458	224	272.5	1.5
2/21/22 20:00	2/22/22 19:00	8,034,177	186	264.7	1.4
2/21/22 21:00	2/22/22 20:00	8,031,638	161	257.2	1.4
2/21/22 22:00	2/22/22 21:00	8,003,482	147	249.7	1.3
2/21/22 23:00	2/22/22 22:00	7,923,230	139	242.6	1.3
2/22/22 0:00	2/22/22 23:00	7,795,790	136	235.4	1.3
2/22/22 1:00	2/23/22 0:00	7,654,311	134	229.2	1.2
2/22/22 2:00	2/23/22 1:00	7,518,492	131	222.9	1.2
2/22/22 3:00	2/23/22 2:00	7,374,477	129	216.9	1.2
2/22/22 4:00	2/23/22 3:00	7,271,578	126	211.6	1.1
2/22/22 5:00	2/23/22 4:00	7,169,331	126	206.9	1.1
2/22/22 6:00	2/23/22 5:00	7,079,656	133	202.3	1.1
2/22/22 7:00	2/23/22 6:00	6,986,413	129	196.9	1.1
2/22/22 8:00	2/23/22 7:00	6,899,622	123	192.3	1.0
2/22/22 9:00	2/23/22 8:00	6,832,263	106	188.5	1.0
2/22/22 10:00	2/23/22 9:00	6,687,224	105	181.9	1.0
2/22/22 11:00	2/23/22 10:00	6,497,768	97	172.4	0.9
2/22/22 12:00	2/23/22 11:00	6,354,803	88	163.9	0.9
2/22/22 13:00	2/23/22 12:00	6,327,445	85	157.7	0.8
2/22/22 14:00	2/23/22 13:00	6,327,654	87	152.2	0.8
2/22/22 15:00	2/23/22 14:00	6,444,994	91	148.3	0.8
2/22/22 16:00	2/23/22 15:00	6,602,925	97	145.1	0.8
2/22/22 17:00	2/23/22 16:00	6,755,833	97	141.8	0.8
2/22/22 18:00	2/23/22 17:00	6,893,898	95	138.6	0.7
2/22/22 19:00	2/23/22 18:00	7,013,500	94	135.9	0.7
2/22/22 20:00	2/23/22 19:00	7,109,496	90	133.5	0.7
2/22/22 21:00	2/23/22 20:00	7,190,989	81	131.3	0.7
2/22/22 22:00	2/23/22 21:00	7,263,800	76	129.1	0.7
2/22/22 23:00	2/23/22 22:00	7,332,642	78	127.3	0.7
2/23/22 0:00	2/23/22 23:00	7,400,255	81	125.8	0.7
2/23/22 1:00	2/24/22 0:00	7,465,915	83	124.5	0.7
2/23/22 2:00	2/24/22 1:00	7,528,205	86	123.3	0.7
2/23/22 3:00	2/24/22 2:00	7,588,374	85	122.1	0.7
2/23/22 4:00	2/24/22 3:00	7,650,017	86	121.2	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
2/23/22 5:00	2/24/22 4:00	7,707,732	86	120.2	0.6
2/23/22 6:00	2/24/22 5:00	7,765,280	91	119.1	0.6
2/23/22 7:00	2/24/22 6:00	7,829,862	90	118.3	0.6
2/23/22 8:00	2/24/22 7:00	7,885,689	85	117.3	0.6
2/23/22 9:00	2/24/22 8:00	7,912,781	97	117.3	0.6
2/23/22 10:00	2/24/22 9:00	7,909,812	159	120.0	0.6
2/23/22 11:00	2/24/22 10:00	7,596,556	22	114.9	0.6
2/23/22 12:00	2/24/22 11:00	7,276,300	20	110.2	0.6
2/23/22 13:00	2/24/22 12:00	6,950,203	19	105.5	0.6
2/23/22 14:00	2/24/22 13:00	6,788,195	624	118.6	0.6
2/23/22 15:00	2/24/22 14:00	6,658,451	282	123.1	0.7
2/23/22 16:00	2/24/22 15:00	6,528,235	227	125.4	0.7
2/23/22 17:00	2/24/22 16:00	6,651,603	151	131.5	0.7
2/23/22 18:00	2/24/22 17:00	6,812,427	152	138.7	0.7
2/23/22 19:00	2/24/22 18:00	6,973,977	121	143.4	0.8
2/23/22 20:00	2/24/22 19:00	7,138,950	117	148.1	0.8
2/23/22 21:00	2/24/22 20:00	7,301,805	297	168.0	0.9
2/23/22 22:00	2/24/22 21:00	7,449,893	427	197.8	1.1
2/23/22 23:00	2/24/22 22:00	7,593,506	452	229.2	1.2
2/24/22 0:00	2/24/22 23:00	7,722,397	406	255.8	1.4
2/24/22 1:00	2/25/22 0:00	7,880,846	443	287.2	1.5
2/24/22 2:00	2/25/22 1:00	8,031,549	434	317.2	1.7
2/24/22 3:00	2/25/22 2:00	8,181,105	419	346.0	1.9
2/24/22 4:00	2/25/22 3:00	8,324,526	402	372.9	2.0
2/24/22 5:00	2/25/22 4:00	8,456,405	412	399.8	2.1
2/24/22 6:00	2/25/22 5:00	8,458,502	483	421.6	2.3
2/24/22 7:00	2/25/22 6:00	8,485,150	337	436.7	2.3
2/24/22 8:00	2/25/22 7:00	8,592,719	375	459.5	2.5
2/24/22 9:00	2/25/22 8:00	8,674,234	368	479.6	2.6
2/24/22 10:00	2/25/22 9:00	8,774,548	354	495.6	2.7
2/24/22 11:00	2/25/22 10:00	9,198,782	336	519.5	2.8
2/24/22 12:00	2/25/22 11:00	9,636,614	316	542.8	2.9
2/24/22 13:00	2/25/22 12:00	10,024,149	347	565.4	3.0
2/24/22 14:00	2/25/22 13:00	10,336,239	367	576.9	3.1
2/24/22 15:00	2/25/22 14:00	10,551,044	304	588.4	3.2
2/24/22 16:00	2/25/22 15:00	10,718,706	226	594.6	3.2
2/24/22 17:00	2/25/22 16:00	10,646,608	191	595.3	3.2
2/24/22 18:00	2/25/22 17:00	10,558,924	194	595.9	3.2
2/24/22 19:00	2/25/22 18:00	10,524,116	216	602.4	3.2
2/24/22 20:00	2/25/22 19:00	10,485,025	189	607.2	3.3
2/24/22 21:00	2/25/22 20:00	10,461,002	149	594.4	3.2
2/24/22 22:00	2/25/22 21:00	10,443,513	119	569.5	3.1
2/24/22 23:00	2/25/22 22:00	10,424,347	95	541.0	2.9
2/25/22 0:00	2/25/22 23:00	10,424,579	80	516.0	2.8
2/25/22 1:00	2/26/22 0:00	10,395,164	69	485.3	2.6
2/25/22 2:00	2/26/22 1:00	10,377,942	61	455.3	2.4
2/25/22 3:00	2/26/22 2:00	10,356,163	54	426.0	2.3
2/25/22 4:00	2/26/22 3:00	10,365,463	48	398.2	2.1
2/25/22 5:00	2/26/22 4:00	10,380,951	41	369.8	2.0

(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
2/25/22 6:00	2/26/22 5:00	10,499,448	47	346.4	1.9
2/25/22 7:00	2/26/22 6:00	10,604,413	28	328.5	1.8
2/25/22 8:00	2/26/22 7:00	10,634,733	13	302.1	1.6
2/25/22 9:00	2/26/22 8:00	10,641,700	11	277.3	1.5
2/25/22 10:00	2/26/22 9:00	10,662,574	12	254.0	1.4
2/25/22 11:00	2/26/22 10:00	10,674,435	15	231.1	1.2
2/25/22 12:00	2/26/22 11:00	10,661,970	20	209.3	1.1
2/25/22 13:00	2/26/22 12:00	10,668,809	44	189.5	1.0
2/25/22 14:00	2/26/22 13:00	10,521,186	99	165.7	0.9
2/25/22 15:00	2/26/22 14:00	10,482,815	118	152.0	0.8
2/25/22 16:00	2/26/22 15:00	10,512,116	124	146.3	0.8
2/25/22 17:00	2/26/22 16:00	10,464,500	192	144.9	0.8
2/25/22 18:00	2/26/22 17:00	10,173,188	466	140.9	0.8
2/25/22 19:00	2/26/22 18:00	9,734,305	392	126.0	0.7
2/25/22 20:00	2/26/22 19:00	9,281,280	29	111.7	0.6
2/25/22 21:00	2/26/22 20:00	8,815,531	22	100.0	0.5
2/25/22 22:00	2/26/22 21:00	8,358,485	19	90.9	0.5
2/25/22 23:00	2/26/22 22:00	7,907,201	17	83.7	0.4
2/26/22 0:00	2/26/22 23:00	7,450,936	19	77.6	0.4
2/26/22 1:00	2/27/22 0:00	6,995,665	20	72.4	0.4
2/26/22 2:00	2/27/22 1:00	6,536,201	22	67.7	0.4
2/26/22 3:00	2/27/22 2:00	6,082,387	22	63.6	0.3
2/26/22 4:00	2/27/22 3:00	5,603,471	22	59.8	0.3
2/26/22 5:00	2/27/22 4:00	5,130,107	22	56.5	0.3
2/26/22 6:00	2/27/22 5:00	4,683,293	22	53.1	0.3
2/26/22 7:00	2/27/22 6:00	4,225,101	22	51.0	0.3
2/26/22 8:00	2/27/22 7:00	3,759,985	24	50.0	0.3
2/26/22 9:00	2/27/22 8:00	3,340,317	22	49.2	0.3
2/26/22 10:00	2/27/22 9:00	2,913,501	25	48.4	0.3
2/26/22 11:00	2/27/22 10:00	2,476,443	20	47.3	0.3
2/26/22 12:00	2/27/22 11:00	2,051,088	12	45.9	0.2
2/26/22 13:00	2/27/22 12:00	1,656,743	13	43.0	0.2
2/26/22 14:00	2/27/22 13:00	1,327,342	15	37.5	0.2
2/26/22 15:00	2/27/22 14:00	953,656	15	30.1	0.2
2/26/22 16:00	2/27/22 15:00	569,012	82	22.1	0.1
2/26/22 17:00	2/27/22 16:00	267,069	134	12.2	0.1

Subpart Ja Root Cause / Corrective Action AnalysisIncident Number: N/A*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)
 Emissions Source(s): North Flare (EPN 20-72, EQT 0035)

 Date of Event: 5/27/22
 Date Analysis Completed: N/A
(1.) (60.108a(c)(6)(i))**A description of the Discharge:**

This discharge resulted from the planned depressurization of the Hydrocracker Unit after start up leak checks. The depressurization was required to install a heat exchanger tube bundle that arrived on site after the leak checks. The discharge included activities such as depressurization and Nitrogen purging. This discharge occurred during the period when the alternate baseline for maintenance turnarounds of 2,160,000 scf/day was applicable per the Flare Management Plan.

(2.) (60.108a(c)(6)(ii) and (60.108a(c)(6)(ix))
 Date and Time the discharge was first identified 5/27/22 12:30
 Date/Time the discharge had ceased 5/30/22 7:00
 Duration of Discharge (Calculated) 66.5 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 flared from this discharge. Additional purges and Nitrogen volume was required to comply with the maintenance vent provisions of 40 CFR 63.643 as well as additional supplemental natural gas required to comply with the Net Heating Value of the Combustion Zone limit (> 270 Btu/scf) of 40 CFR 63.670, that became effective on January 30, 2019.

(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? Yes (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? Yes (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)
 N/A
(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? No (Yes/No)
 N/A
(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.**

N/A

(8.)					
The measured or calculated cumulative quantity of gas discharged over the discharge duration.					
<i>Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.</i>					
		(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
5/26/22 12:00	5/27/22 11:00	0	5	34.3	0.2
5/26/22 13:00	5/27/22 12:00	53,236	4	21.1	0.1
5/26/22 14:00	5/27/22 13:00	317,062	2	3.4	0.0
5/26/22 15:00	5/27/22 14:00	924,829	2	3.4	0.0
5/26/22 16:00	5/27/22 15:00	1,579,747	1	3.5	0.0
5/26/22 17:00	5/27/22 16:00	2,144,404	1	3.5	0.0
5/26/22 18:00	5/27/22 17:00	2,576,895	2	3.6	0.0
5/26/22 19:00	5/27/22 18:00	2,920,420	2	3.6	0.0
5/26/22 20:00	5/27/22 19:00	3,211,686	1	3.6	0.0
5/26/22 21:00	5/27/22 20:00	3,381,782	2	3.5	0.0
5/26/22 22:00	5/27/22 21:00	3,335,363	23	3.5	0.0
5/26/22 23:00	5/27/22 22:00	3,280,731	21	3.4	0.0
5/27/22 0:00	5/27/22 23:00	3,215,188	24	3.4	0.0
5/27/22 1:00	5/28/22 0:00	3,139,498	22	3.4	0.0
5/27/22 2:00	5/28/22 1:00	3,057,880	21	3.4	0.0
5/27/22 3:00	5/28/22 2:00	2,976,161	19	3.4	0.0
5/27/22 4:00	5/28/22 3:00	2,897,177	16	3.4	0.0
5/27/22 5:00	5/28/22 4:00	2,821,568	15	3.4	0.0
5/27/22 6:00	5/28/22 5:00	2,748,236	14	3.1	0.0
5/27/22 7:00	5/28/22 6:00	2,678,099	13	2.8	0.0
5/27/22 8:00	5/28/22 7:00	2,596,930	15	2.7	0.0
5/27/22 9:00	5/28/22 8:00	2,517,102	19	2.7	0.0
5/27/22 10:00	5/28/22 9:00	2,438,826	19	2.7	0.0
5/27/22 11:00	5/28/22 10:00	2,355,074	17	2.7	0.0
5/27/22 12:00	5/28/22 11:00	2,274,395	19	2.7	0.0
5/27/22 13:00	5/28/22 12:00	2,152,257	19	2.7	0.0
5/27/22 14:00	5/28/22 13:00	1,853,500	17	2.7	0.0
5/27/22 15:00	5/28/22 14:00	1,217,427	17	2.6	0.0
5/27/22 16:00	5/28/22 15:00	530,556	22	2.6	0.0
5/27/22 17:00	5/28/22 16:00	0	24	2.5	0.0
5/27/22 18:00	5/28/22 17:00	0	21	2.5	0.0
5/27/22 19:00	5/28/22 18:00	0	468	5.5	0.0
5/27/22 20:00	5/28/22 19:00	0	691	11.0	0.1
5/27/22 21:00	5/28/22 20:00	0	33	11.1	0.1
5/27/22 22:00	5/28/22 21:00	0	23	11.1	0.1
5/27/22 23:00	5/28/22 22:00	0	21	11.1	0.1
5/28/22 0:00	5/28/22 23:00	0	23	11.1	0.1
5/28/22 1:00	5/29/22 0:00	0	29	11.1	0.1
5/28/22 2:00	5/29/22 1:00	0	28	11.1	0.1
5/28/22 3:00	5/29/22 2:00	0	28	11.2	0.1
5/28/22 4:00	5/29/22 3:00	0	27	11.2	0.1
5/28/22 5:00	5/29/22 4:00	0	26	11.3	0.1
5/28/22 6:00	5/29/22 5:00	0	25	11.4	0.1
5/28/22 7:00	5/29/22 6:00	0	24	11.4	0.1
5/28/22 8:00	5/29/22 7:00	0	24	11.5	0.1
5/28/22 9:00	5/29/22 8:00	0	21	11.5	0.1
5/28/22 10:00	5/29/22 9:00	0	22	11.5	0.1
5/28/22 11:00	5/29/22 10:00	0	24	11.5	0.1
5/28/22 12:00	5/29/22 11:00	0	24	11.6	0.1

(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
5/28/22 13:00	5/29/22 12:00	0	21	11.6	0.1
5/28/22 14:00	5/29/22 13:00	0	88	12.1	0.1
5/28/22 15:00	5/29/22 14:00	0	24	12.1	0.1
5/28/22 16:00	5/29/22 15:00	0	23	12.1	0.1
5/28/22 17:00	5/29/22 16:00	0	20	12.2	0.1
5/28/22 18:00	5/29/22 17:00	0	8	12.2	0.1
5/28/22 19:00	5/29/22 18:00	0	4	9.6	0.1
5/28/22 20:00	5/29/22 19:00	0	4	4.3	0.0
5/28/22 21:00	5/29/22 20:00	0	6	4.4	0.0
5/28/22 22:00	5/29/22 21:00	0	15	4.3	0.0
5/28/22 23:00	5/29/22 22:00	86,183	7	4.5	0.0
5/29/22 0:00	5/29/22 23:00	89,883	16	4.5	0.0
5/29/22 1:00	5/30/22 0:00	339,208	6	4.6	0.0
5/29/22 2:00	5/30/22 1:00	468,789	8	4.7	0.0
5/29/22 3:00	5/30/22 2:00	542,885	9	4.7	0.0
5/29/22 4:00	5/30/22 3:00	841,765	45	7.0	0.0
5/29/22 5:00	5/30/22 4:00	845,898	62	7.2	0.0
5/29/22 6:00	5/30/22 5:00	1,042,612	36	8.4	0.0
5/29/22 7:00	5/30/22 6:00	1,252,565	14	8.9	0.0
5/29/22 8:00	5/30/22 7:00	1,255,573	22	8.9	0.0
5/29/22 9:00	5/30/22 8:00	1,255,983	21	8.9	0.0
5/29/22 10:00	5/30/22 9:00	1,255,974	24	8.9	0.0
5/29/22 11:00	5/30/22 10:00	1,256,204	27	8.9	0.0
5/29/22 12:00	5/30/22 11:00	1,256,028	26	8.9	0.0
5/29/22 13:00	5/30/22 12:00	1,255,094	90	9.3	0.1
5/29/22 14:00	5/30/22 13:00	1,248,373	24	8.9	0.0
5/29/22 15:00	5/30/22 14:00	1,248,103	18	8.8	0.0
5/29/22 16:00	5/30/22 15:00	1,247,637	20	8.8	0.0
5/29/22 17:00	5/30/22 16:00	1,224,607	21	8.7	0.0
5/29/22 18:00	5/30/22 17:00	1,116,726	23	8.7	0.0
5/29/22 19:00	5/30/22 18:00	424,217	21	8.3	0.0

Subpart Ja Root Cause / Corrective Action Analysis

Incident Number: N/A

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)
Emissions Source(s): North Flare (EPN 20-72, EQT 0035)

Date of Event: 6/2/22
Date Analysis Completed: N/A

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

A description of the Discharge:

This discharge resulted from the planned start up of the Hydrocracker Unit. The discharge included activities such as unit purging and compressor starting. The alternate baseline for maintenance turnarounds of 2,160,000 scf/day was applicable for this discharge per the Flare Management Plan. Following the Hydrocracker start up, all refinery flare headers were directed to Flare Gas Recovery and the normal baseline of zero scf/day became applicable.

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

Date and Time the discharge was first identified 6/2/22 14:30
Date/Time the discharge had ceased 6/3/22 2:40
Duration of Discharge (Calculated) 12.2 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 flared from this discharge. Additional purges and Nitrogen volume was required to comply with the maintenance vent provisions of 40 CFR 63.643 as well as additional supplemental natural gas required to comply with the Net Heating Value of the Combustion Zone limit (> 270 Btu/scf) of 40 CFR 63.670, that became effective on January 30, 2019.

(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? Yes (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? Yes (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)
N/A

(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? No (Yes/No)
N/A

(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.

N/A

(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
6/1/22 14:00	6/2/22 13:00	0	4	2.6	0.0
6/1/22 15:00	6/2/22 14:00	0	3	2.5	0.0
6/1/22 16:00	6/2/22 15:00	0	4	2.5	0.0
6/1/22 17:00	6/2/22 16:00	0	42	4.8	0.0
6/1/22 18:00	6/2/22 17:00	0	4	4.8	0.0
6/1/22 19:00	6/2/22 18:00	40,332	40	6.4	0.0
6/1/22 20:00	6/2/22 19:00	253,555	49	8.4	0.0
6/1/22 21:00	6/2/22 20:00	455,015	3	8.4	0.0
6/1/22 22:00	6/2/22 21:00	670,614	9	8.7	0.0
6/1/22 23:00	6/2/22 22:00	795,945	3	8.7	0.0
6/2/22 0:00	6/2/22 23:00	875,205	4	8.6	0.0
6/2/22 1:00	6/3/22 0:00	955,465	4	8.6	0.0
6/2/22 2:00	6/3/22 1:00	1,038,810	3	8.5	0.0
6/2/22 3:00	6/3/22 2:00	1,057,657	4	8.4	0.0
6/2/22 4:00	6/3/22 3:00	1,016,271	10	8.3	0.0
6/2/22 5:00	6/3/22 4:00	978,166	11	8.2	0.0
6/2/22 6:00	6/3/22 5:00	952,834	10	8.1	0.0
6/2/22 7:00	6/3/22 6:00	926,527	10	8.0	0.0
6/2/22 8:00	6/3/22 7:00	895,675	20	8.0	0.0
6/2/22 9:00	6/3/22 8:00	859,439	35	8.0	0.0
6/2/22 10:00	6/3/22 9:00	816,913	35	8.0	0.0
6/2/22 11:00	6/3/22 10:00	770,867	33	8.1	0.0
6/2/22 12:00	6/3/22 11:00	720,661	36	8.1	0.0
6/2/22 13:00	6/3/22 12:00	665,391	36	8.1	0.0
6/2/22 14:00	6/3/22 13:00	606,880	37	8.1	0.0
6/2/22 15:00	6/3/22 14:00	453,845	34	8.0	0.0
6/2/22 16:00	6/3/22 15:00	159,958	35	7.9	0.0

Subpart Ja Root Cause / Corrective Action AnalysisIncident Number: **458460***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)
 Emissions Source(s): South Flare (EPN 3-77, EQT 0049)

Date of Event: 6/9/22
 Date Analysis Completed: 7/5/22

(1.) (60.108a(c)(6)(i))**A description of the Discharge:**

On June 9 2022 at approximately 12:14, Valero experienced elevated flow to the South Flare during an ongoing refinery startup following a maintenance turnaround. Valero conducted an extensive search of the refinery and determined that the source of the flow was a Pressure Safety Valve (PSV) on one of the natural gas supply lines providing natural gas to the refinery fuel gas system. Valero was unable to get this PSV to reseal using DCS controls and the manual block valves are located at elevation with no quick means of access. Valero obtained resources to safely access the manual block valves and was able to reseal this PSV.

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

Date and Time the discharge was first identified 6/9/22 12:14
 Date/Time the discharge had ceased 6/9/22 18:03
 Duration of Discharge (Calculated) 5.8 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 flared from 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)

Valero determined the root cause of this discharge to be running too low of a flow rate from this natural gas supply line and the control valve being too far shut to adequately respond to process changes in time to prevent lifting the PSV.

(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) *Set an alarm to notify control room operators that the natural gas control valve is less than an adequate minimum % open.*

(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) *Set an alarm to notify control room operators that the natural gas control valve is less than an adequate minimum % open.*

Commencement Date: 7/5/22

Completed Date: 3/17/22

(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
6/8/22 12:00	6/9/22 11:00	121,497	40	1.9	0.0
6/8/22 13:00	6/9/22 12:00	310,951	51	3.5	0.0
6/8/22 14:00	6/9/22 13:00	505,848	57	5.3	0.0
6/8/22 15:00	6/9/22 14:00	682,826	63	6.8	0.0
6/8/22 16:00	6/9/22 15:00	865,562	60	8.7	0.0
6/8/22 17:00	6/9/22 16:00	1,053,224	57	10.5	0.1
6/8/22 18:00	6/9/22 17:00	1,240,551	60	12.4	0.1
6/8/22 19:00	6/9/22 18:00	1,250,347	54	12.5	0.1
6/8/22 20:00	6/9/22 19:00	1,250,343	36	12.5	0.1
6/8/22 21:00	6/9/22 20:00	1,250,342	36	12.5	0.1
6/8/22 22:00	6/9/22 21:00	1,250,345	32	12.5	0.1
6/8/22 23:00	6/9/22 22:00	1,250,339	38	12.5	0.1
6/9/22 0:00	6/9/22 23:00	1,250,353	37	12.5	0.1
6/9/22 1:00	6/10/22 0:00	1,250,378	37	12.5	0.1
6/9/22 2:00	6/10/22 1:00	1,250,377	38	12.4	0.1
6/9/22 3:00	6/10/22 2:00	1,250,377	37	12.4	0.1
6/9/22 4:00	6/10/22 3:00	1,250,371	38	12.4	0.1
6/9/22 5:00	6/10/22 4:00	1,250,348	41	12.4	0.1
6/9/22 6:00	6/10/22 5:00	1,250,349	37	12.4	0.1
6/9/22 7:00	6/10/22 6:00	1,250,646	44	12.4	0.1
6/9/22 8:00	6/10/22 7:00	1,273,288	1320	19.3	0.1
6/9/22 9:00	6/10/22 8:00	1,296,445	2927	34.8	0.2
6/9/22 10:00	6/10/22 9:00	1,312,835	234	35.7	0.2
6/9/22 11:00	6/10/22 10:00	1,312,834	97	35.8	0.2
6/9/22 12:00	6/10/22 11:00	1,322,381	6480	55.7	0.3
6/9/22 13:00	6/10/22 12:00	1,133,587	90	54.2	0.3
6/9/22 14:00	6/10/22 13:00	938,687	87	52.4	0.3
6/9/22 15:00	6/10/22 14:00	750,391	85	50.5	0.3
6/9/22 16:00	6/10/22 15:00	564,286	87	48.7	0.3
6/9/22 17:00	6/10/22 16:00	592,705	2720	147.7	0.8
6/9/22 18:00	6/10/22 17:00	405,373	44	145.8	0.8

Subpart Ja Root Cause / Corrective Action Analysis

Incident Number: 458538

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)
Emissions Source(s): North Flare (EPN 20-72, EQT 0035)

Date of Event: 6/12/22
Date Analysis Completed: 7/26/22

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

A description of the Discharge:

On June 12, 2022 at approximately 08:40, Valero experienced an automatic shutdown of the running Pressure Swing Absorber (PSA) tailgas compressor in the Hydrocracker Unit due low of lube oil pressure. Valero inspected the compressor and determined that a section of lube oil tubing had failed and depressurized the lube oil system. Valero repaired the lube oil tubing, refilled the system with lube oil, and restarted the same compressor that had originally been running. A few hours later, the compressor automatically shutdown again due to the same tubing failure. Valero again quickly repaired the lube oil tubing, refilled the system with lube oil, and placed the other tailgas compressor in service to stop this discharge.

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

Date and Time the discharge was first identified 6/12/22 8:40
Date/Time the discharge had ceased 6/13/22 3:17
Duration of Discharge (Calculated) 18.6 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 flared from 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)

Valero determined the root cause of this discharge to be the mechanical failure of lube oil tubing due to vibration of the PSA tailgas compressor.

(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) Replace the sections of lube oil tubing subject to vibration with flexible hose.

(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) Replace the sections of lube oil tubing subject to vibration with flexible hose.

Commencement Date: 7/27/22

Estimated Completion Date: 10/31/22

(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
6/11/22 8:00	6/12/22 7:00	106,802	30	1.3	0.0
6/11/22 9:00	6/12/22 8:00	188,441	152	3.5	0.0
6/11/22 10:00	6/12/22 9:00	889,685	1600	190.6	1.0
6/11/22 11:00	6/12/22 10:00	1,151,493	278	203.0	1.1
6/11/22 12:00	6/12/22 11:00	1,296,495	15	203.3	1.1
6/11/22 13:00	6/12/22 12:00	1,296,481	37	203.3	1.1
6/11/22 14:00	6/12/22 13:00	1,296,464	41	203.3	1.1
6/11/22 15:00	6/12/22 14:00	1,296,464	41	203.3	1.1
6/11/22 16:00	6/12/22 15:00	1,296,481	45	203.3	1.1
6/11/22 17:00	6/12/22 16:00	1,296,479	41	203.3	1.1
6/11/22 18:00	6/12/22 17:00	1,296,490	42	203.3	1.1
6/11/22 19:00	6/12/22 18:00	1,296,481	41	203.3	1.1
6/11/22 20:00	6/12/22 19:00	1,296,494	37	203.3	1.1
6/11/22 21:00	6/12/22 20:00	1,296,503	39	203.3	1.1
6/11/22 22:00	6/12/22 21:00	1,296,487	38	203.3	1.1
6/11/22 23:00	6/12/22 22:00	1,296,481	38	203.3	1.1
6/12/22 0:00	6/12/22 23:00	1,296,477	39	203.3	1.1
6/12/22 1:00	6/13/22 0:00	1,302,426	450	204.4	1.1
6/12/22 2:00	6/13/22 1:00	1,491,799	85	207.1	1.1
6/12/22 3:00	6/13/22 2:00	1,658,897	193	212.7	1.1
6/12/22 4:00	6/13/22 3:00	1,675,350	2681	223.9	1.2
6/12/22 5:00	6/13/22 4:00	1,675,351	39	223.9	1.2
6/12/22 6:00	6/13/22 5:00	1,675,369	37	223.9	1.2
6/12/22 7:00	6/13/22 6:00	1,675,374	35	223.9	1.2
6/12/22 8:00	6/13/22 7:00	1,675,383	34	223.9	1.2
6/12/22 9:00	6/13/22 8:00	1,593,729	38	221.7	1.2
6/12/22 10:00	6/13/22 9:00	892,468	36	34.6	0.2
6/12/22 11:00	6/13/22 10:00	630,653	36	22.2	0.1
6/12/22 12:00	6/13/22 11:00	485,629	39	21.9	0.1

Subpart Ja Root Cause / Corrective Action AnalysisIncident Number: N/A*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)
 Emissions Source(s): North Flare (EPN 20-72, EQT 0035)

 Date of Event: 6/24/22
 Date Analysis Completed: N/A
(1.) (60.108a(c)(6)(i))**A description of the Discharge:**

This discharge resulted from the planned shut down of the Pressure Swing Absorber (PSA) tailgas compressor lube oil system to repair the lube oil pump. The lube oil system is common to both tailgas compressors; therefore both tailgas compressor were offline during these repairs. Valero believes that this lube oil pump was possibly damaged by the recent loss of lube oil events caused by failed tubing.

(2.) (60.108a(c)(6)(ii) and (60.108a(c)(6)(ix))
 Date and Time the discharge was first identified 6/24/22 23:21
 Date/Time the discharge had ceased 6/25/22 4:54
 Duration of Discharge (Calculated) 5.6 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 flared from 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?	<u>Yes</u>	(Yes/No)
Was the flare management plan followed?	<u>Yes</u>	(Yes/No/N/A)
Is the event exempt from a RC/CCA based on the answers above?	<u>Yes</u>	(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)
 N/A
(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? No (Yes/No)
 N/A
(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.**

N/A

(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
6/23/22 23:00	6/24/22 22:00	285,618	29	42.6	0.2
6/24/22 0:00	6/24/22 23:00	476,644	5	42.7	0.2
6/24/22 1:00	6/25/22 0:00	781,092	1	42.7	0.2
6/24/22 2:00	6/25/22 1:00	1,080,311	1	42.7	0.2
6/24/22 3:00	6/25/22 2:00	1,376,365	1	42.7	0.2
6/24/22 4:00	6/25/22 3:00	1,676,392	1	42.7	0.2
6/24/22 5:00	6/25/22 4:00	1,920,409	2	42.7	0.2
6/24/22 6:00	6/25/22 5:00	1,920,433	31	42.7	0.2
6/24/22 7:00	6/25/22 6:00	1,920,429	35	42.7	0.2
6/24/22 8:00	6/25/22 7:00	1,920,675	32	42.7	0.2
6/24/22 9:00	6/25/22 8:00	1,922,677	35	42.7	0.2
6/24/22 10:00	6/25/22 9:00	1,925,013	34	42.7	0.2
6/24/22 11:00	6/25/22 10:00	1,927,023	34	42.7	0.2
6/24/22 12:00	6/25/22 11:00	1,920,011	31	40.5	0.2
6/24/22 13:00	6/25/22 12:00	1,892,674	26	25.3	0.1
6/24/22 14:00	6/25/22 13:00	1,847,614	25	20.3	0.1
6/24/22 15:00	6/25/22 14:00	1,804,513	29	13.4	0.1
6/24/22 16:00	6/25/22 15:00	1,768,862	27	3.3	0.0
6/24/22 17:00	6/25/22 16:00	1,759,137	33	1.5	0.0
6/24/22 18:00	6/25/22 17:00	1,759,133	35	1.4	0.0
6/24/22 19:00	6/25/22 18:00	1,759,129	28	1.4	0.0
6/24/22 20:00	6/25/22 19:00	1,759,117	33	1.4	0.0
6/24/22 21:00	6/25/22 20:00	1,759,104	41	1.4	0.0
6/24/22 22:00	6/25/22 21:00	1,759,101	39	1.4	0.0
6/24/22 23:00	6/25/22 22:00	1,759,107	36	1.4	0.0
6/25/22 0:00	6/25/22 23:00	1,568,069	36	1.3	0.0
6/25/22 1:00	6/26/22 0:00	1,263,603	34	1.3	0.0
6/25/22 2:00	6/26/22 1:00	964,399	36	1.3	0.0
6/25/22 3:00	6/26/22 2:00	668,371	37	1.3	0.0
6/25/22 4:00	6/26/22 3:00	368,375	37	1.3	0.0