



January 30, 2024

CERTIFIED: 7016 2710 0000 3305 6580

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 – 4th Quarter 2023
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 Fourth Quarter 2023.

For this reporting period, the SO₂/O₂ CEMS on the #2 SRU Incinerator (EPN 1-93, EQT 0019) had excess emissions greater than 1% of the total operating time and no CEMS had downtime greater than 5% of the total operating time.

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 that were completed prior to the date of this submittal are included. If the 45 day deadline extends past the date of this submittal, those reports will be included in next quarter's 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,

A handwritten signature in cursive script that reads 'Leslie Sullivan' followed by the date '1/25/24'.

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: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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 and O₂)

Date of Latest CMS Certification or Audit: CGA on 12/15/23

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

Total source operating time in reporting period: 860 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
a. Startup/shutdown	49
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	49
3. Total duration of excess emissions x (100) [Total source operating time] ²	5.7 %

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) and 60.108a(d))

Pollutant: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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: CGA on 11/9/23

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

Total source operating time in reporting period: 2,209 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	1
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	5
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	6
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.3 %

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

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

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

(per 40 CFR 60.7(d))

Pollutant: H₂S

Applicable NSPS Subpart: I

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 12/15/23

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 0010-2,209 hours, EQT 0011-2,209 hours, EQT 0033-1,371 hours, EQT 0058-2,209 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>All EQT's (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. (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: 10/1/23 to 12/31/23

Date submitted: 1/30/24

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 12/15/23

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 0013-2,209 hours; EQT 0022-2,209 hours; EQT 0024-2,209 hours; EQT 0027-2,209 hours; EQT 0028-2,209 hours; EQT 0029-2,209 hours; EQT 0014-2,209 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>All EQT's (hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	4
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	4
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.2 %

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

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

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

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

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 12/15/23

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 0127-2,209 hours; EQT 0159-2,209 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>All EQT's (hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	4
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	4
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.2 %

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

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

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

(per 40 CFR 60.7(d))

Pollutant: H₂S

Applicable NSPS Subpart: I

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 12/15/23

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: I

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 12/14/23

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: 1,946 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	4
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	4
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.2 %

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

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

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

(per 40 CFR 60.7(d))

Pollutant: H₂S

Applicable NSPS Subpart: I

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 12/15/23

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

Total source operating time in reporting period: EQT 0030-2,209 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	0	0
e. Unknown causes	0	0
2. Total duration of excess emission	0	0
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.0 %	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	4	0
d. Other known causes	0	0
e. Unknown causes	0	0
2. Total CMS Downtime	4	0
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.2 %	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.

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: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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)

Date of Latest CMS Certification or Audit: CGA on 1/9/23

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

Total source operating time in reporting period: 2,209 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	2
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	2
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.1 %

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

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

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

(per 40 CFR 60.7(d))

Pollutant: NO_x

Applicable NSPS Subpart: Db

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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)

Date of Latest CMS Certification or Audit: CGA on 11/9/23

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

Total source operating time in reporting period: 2,209 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	2
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	2
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.1 %

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

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

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

(per 40 CFR 60.7(d))

Pollutant: NO_x

Applicable NSPS Subpart: Db

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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: CGA on 12/15/23

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

Total source operating time in reporting period: 2,209 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	8
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	8
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.4 %

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.

**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: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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: RATA on 11/20/23

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

Total source operating time in reporting period: 2,209 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: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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: CGA on 11/14/23

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

Total source operating time in reporting period: 2,209 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	2
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	2
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.1 %

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

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

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

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

Pollutant: **NO_x**

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

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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)

Date of Latest CMS Certification or Audit: CGA on 11/9/23

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

Total source operating time in reporting period: 2,209 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: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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 (NO_x)/ Magnos 206 (O₂)

Date of Latest CMS Certification or Audit: CGA on 11/14/23

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

Total source operating time in reporting period: 2,209 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: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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 11/15/23

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

Total source operating time in reporting period: 2,209 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	9
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	0.4 %

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	3
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	3
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.1 %

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

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

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

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

Pollutant: H₂S

Applicable NSPS Subpart: Ja

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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 11/14/23

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

Total source operating time in reporting period: 2,209 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	9
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	9
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.4 %

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: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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 11/9/23

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

Total source operating time in reporting period: 2,209 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	9
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	9
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.4 %

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: **Total Sulfur**

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

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 12/29/23

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

Total source operating time in reporting period: 2,209 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	12
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	12
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.5 %

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: **Total Sulfur**

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

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 12/29/23

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

Total source operating time in reporting period: 2,209 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	13
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	13
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: **Total Sulfur**

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

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 12/29/23

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

Total source operating time in reporting period: 2,209 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	13
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	13
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: **Flow**

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

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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: 2,209 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: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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: 2,209 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: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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: 2,209 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))

For all CMS covered in this report, no changes were made in the 4th Quarter 2023 to CMS, process, or controls.

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

Daniel Patnoad

Name

 11/19/24

Signature

Staff 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: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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 and O₂)

Date of Latest CMS Certification or Audit: CGA on 12/15/23

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

Total source operating time in reporting period: 860 hours

Ja EXCESS EMISSIONS						
Date	Start	End	Duration (hours)	Max 12-HRA (ppm)	Cause	Corrective Action
10/2/23	05:00		20	797	SO ₂ at 0% O ₂ greater than 250 ppm, 12-HRA, with combined SO ₂ emissions from the #2 and #3 SRU less than 500 lbs/day above allowable due to the automatic shutdown of the Main Air Blower, shortly after acid gas feed to the unit was stopped, during a planned shutdown for turnaround. The loss of air caused the #2 SRU and #2 TGT burners to shut down and the #2 TGT to be bypassed to the incinerator, causing excess SO ₂ emissions.	Valero restarted the Main Air Blower and relit the #2 SRU and #2 TGT burners and proceeded with the normal shutdown for the #2 SRU.
10/3/23		01:00				
10/4/23	11:00		29	814	SO ₂ at 0% O ₂ greater than 250 ppm, 12-HRA, with combined SO ₂ emissions from the #2 and #3 SRU less than 500 lbs/day above allowable during the normal shutdown of the #2 SRU for turnaround. Excess SO ₂ emissions occurred when the #2 TGT was bypassed for the shutdown.	N/A
10/5/23		16:00				
TOTAL			49			

Ja CMS PERFORMANCE¹						
Date	Start	End	Duration (hours)	Cause	Corrective Action	
12/15/23	08:00	09:00	1	SO ₂ and O ₂ cylinder gas 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: **SO₂**

Applicable NSPS Subpart: **Ja**

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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: CGA on 11/9/23

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

Total source operating time in reporting period: 2,209 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	
10/2/23	09:00	11:00	2	Offline to troubleshoot recent need for frequent adjustments for analyzer drift.	Valero discovered that valves on tubing used to blowback the sample and probe with air were intermittently leaking and causing the need for the frequent adjustments to the analyzer. Valero isolated the blowback tubing and calibrated the analyzers.	
10/6/23	08:00	09:00	1	Offline to replace the valves on the blowback system.	Valero calibrated the analyzers and returned them to service.	
10/6/23	11:00	12:00	1	Follow up check of the analyzers after replacing the valves on the blowback system.	Valero calibrated the analyzers and returned them to service.	
11/9/23	08:00	10:00	2	SO ₂ and O ₂ cylinder gas audit.	N/A	
TOTAL			6			

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 and Ja

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 12/15/23

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 0127-2,209 hours; EQT 0159-2,209 hours

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

Ja CMS PERFORMANCE ¹ – Both EQT’s						
Date	Start	End	Duration (hours)	Cause	Corrective Action	
10/9/23	13:00	14:00	1	Offline to replace water filters and ammonia regulator.	Calibrated and returned to service.	
12/19/23	08:00	11:00	3	Offline for annual preventative maintenance.	Calibrated and returned to service.	
TOTAL			4			

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: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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: RATA on 11/20/23

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

Total source operating time in reporting period: 2,209 hours

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

Ja CMS PERFORMANCE cont. ¹					
Date	Start	End	Duration (hours)	Cause	Corrective Action
12/9/23	09:00	10:00	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: NO_x

Applicable NSPS Subpart: Ja

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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 (NO_x), Magnos27 (O₂)

Date of Latest CMS Certification or Audit: CGA on 11/14/23

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

Total source operating time in reporting period: 2,209 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
11/14/23	07:00	09:00	2	NO _x and O ₂ Cylinder Gas Audit.	N/A
TOTAL			2		

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: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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 11/15/23

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

Total source operating time in reporting period: 2,209 hours

Ja EXCESS EMISSIONS¹						
Date	Start	End	Duration (hours)	Max 3-HRA (ppm)	Cause	Corrective Action
12/21/23	16:00		9	300	H ₂ S greater than 300 ppm, 3-HRA, with combined SO ₂ emissions from the North and South Flare less than 500 lbs in a 24-hour period due to shutting down the Flare Gas Recovery compressors to replace plugged suction strainers. At the time Valero was venting propane to the flare header to supplement the refinery fuel gas system which caused freezing conditions in the strainers. Valero also discovered that the electric heat trace was not energized.	Valero replaced the suction strainers and restarted the Flare Gas Recovery Compressor. Valero will verify that the electric heat trace system is operating properly and conduct training with operators on the operation of the electric heat trace system.
12/22/23		01:00				
TOTAL			9			

Ja CMS PERFORMANCE²						
Date	Start	End	Duration (hours)	Cause	Corrective Action	
11/10/23	10:00	12:00	2	Adjusted for calibration drift.	N/A	
11/15/23	09:00	10:00	1	Cylinder Gas Audit.	N/A	
TOTAL			3			

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: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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 11/14/23

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

Total source operating time in reporting period: 2,209 hours

Ja EXCESS EMISSIONS¹						
Date	Start	End	Duration (hours)	Max 3-HRA (ppm)	Cause	Corrective Action
12/21/23	16:00		9	300	H ₂ S greater than 300 ppm, 3-HRA, with combined SO ₂ emissions from the North and South Flare less than 500 lbs in a 24-hour period due to shutting down the Flare Gas Recovery compressors to replace plugged suction strainers. At the time Valero was venting propane to the flare header to supplement the refinery fuel gas system which caused freezing conditions in the strainers. Valero also discovered that the electric heat trace was not energized.	Valero replaced the suction strainers and restarted the Flare Gas Recovery Compressor. Valero will verify that the electric heat trace system is operating properly and conduct training with operators on the operation of the electric heat trace system.
12/22/23		01:00				
TOTAL			9			

Ja CMS PERFORMANCE²						
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: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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 11/9/23

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

Total source operating time in reporting period: 2,209 hours

Ja EXCESS EMISSIONS¹						
Date	Start	End	Duration (hours)	Max 3-HRA (ppm)	Cause	Corrective Action
12/21/23	16:00		9	300	H ₂ S greater than 300 ppm, 3-HRA, with combined SO ₂ emissions from the North and South Flare less than 500 lbs in a 24-hour period due to shutting down the Flare Gas Recovery compressors to replace plugged suction strainers. At the time Valero was venting propane to the flare header to supplement the refinery fuel gas system which caused freezing conditions in the strainers. Valero also discovered that the electric heat trace was not energized.	Valero replaced the suction strainers and restarted the Flare Gas Recovery Compressor. Valero will verify that the electric heat trace system is operating properly and conduct training with operators on the operation of the electric heat trace system.
12/22/23		01:00				
TOTAL			9			

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

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

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

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

Pollutant: **Total Sulfur**

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

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 12/29/23

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

Total source operating time in reporting period: 2,209 hours

Ja CMS PERFORMANCE¹					
Date	Start	End	Duration (hours)	Cause	Corrective Action
11/21/23	13:00	14:00	1	Adjusted for calibration drift.	N/A
11/27/23	09:00	15:00	6	Offline for preventative maintenance on sample system and analyzer tubing.	Calibrated and returned to service.
11/28/23	08:00	09:00	1	Adjusted for calibration drift.	N/A
12/5/23	13:00	14:00	1	Cylinder Gas Audit. Performed with an expired cylinder, reperformed on 12/29/23.	N/A
12/15/23	11:00	14:00	3	Analyzer was repeatedly switching ranges while the concentration in the header was close to the range switching setpoints. Offline to adjust analyzer for better range switching performance.	Calibrated and returned to service.
12/29/23	09:00	10:00	1	Cylinder Gas Audit.	N/A
TOTAL			13		

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

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

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

Pollutant: **Total Sulfur**

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

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 12/29/23

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

Total source operating time in reporting period: 2,209 hours

Ja CMS PERFORMANCE¹					
Date	Start	End	Duration (hours)	Cause	Corrective Action
10/21/23	11:00	13:00	2	Adjusted for calibration drift.	N/A
10/22/23	10:00	12:00	2	Adjusted for calibration drift.	N/A
11/27/23	09:00	15:00	6	Offline for preventative maintenance on sample system and analyzer tubing.	Calibrated and returned to service.
11/28/23	08:00	09:00	1	Adjusted for calibration drift.	N/A
12/5/23	13:00	14:00	1	Cylinder Gas Audit. Performed with an expired cylinder, reperformed on 12/29/23.	N/A
12/29/23	09:00	10:00	1	Cylinder Gas Audit.	N/A
TOTAL			13		

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: 10/1/23 to 12/31/23

Date submitted: 1/30/24

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 12/29/23

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

Total source operating time in reporting period: 2,209 hours

Ja CMS PERFORMANCE²					
Date	Start	End	Duration (hours)	Cause	Corrective Action
10/24/23	07:00	09:00	2	Offline to adjust sample flow.	Calibrated and returned to service.
11/27/23	09:00	15:00	6	Offline for preventative maintenance on sample system and analyzer tubing.	Calibrated and returned to service.
11/28/23	08:00	09:00	1	Adjustment for calibration drift.	Calibrated and returned to service.
12/5/23	13:00	14:00	1	Cylinder Gas Audit. Performed with an expired cylinder, reperformed on 12/29/23.	N/A
12/15/23	13:00	15:00	2	Analyzer was repeatedly switching ranges while the concentration in the header was close to the range switching setpoints. Offline to adjust analyzer for better range switching performance.	Calibrated and returned to service.
12/29/23	09:00	10:00	1	Cylinder Gas Audit.	N/A
TOTAL			13		

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: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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: 2,209 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: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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: 2,209 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: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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: 2,209 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.

DATA ASSESSMENT REPORT

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

Pollutant: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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 and O₂)

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

CEM Sampling Location: #2 SRU Incinerator

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	SO ₂ #1 <u>(low scale)</u>	SO ₂ #2 <u>(high scale)</u>	O ₂ #1 <u>(low scale)</u>	O ₂ #2 <u>(high scale)</u>
Date of Audit	12/15/23	12/15/23	12/15/23	12/15/23
Audit Gas Cylinder No.	SG9150051BAL	CC50964	CC483689	SG9152263BAL
Date of Audit Gas Cert.	5/27/16	4/7/24	5/23/16	5/23/16
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	124.9 ppmv	277.1 ppmv	5.99 vol %	10.05 vol %
CEM Response Value	127.3 ppmv	282.1 ppmv	5.63 vol %	9.70 vol %
Accuracy	1.9%	1.8%	6.0%	3.5%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	SO ₂ #1 <u>(low scale)</u>	SO ₂ #2 <u>(high scale)</u>	O ₂ #1 <u>(low scale)</u>	O ₂ #2 <u>(high scale)</u>
Date of Audit	11/9/23	11/9/23	11/9/23	11/9/23
Audit Gas Cylinder No.	XC022957B	CC94008	CC483694	EB0063979
Date of Audit Gas Cert.	5/27/16	5/27/16	5/23/16	5/23/16
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	125.3 ppmv	275.3 ppmv	5.99 vol %	9.98 vol %
CEM Response Value	125.9 ppmv	261.2 ppmv	5.99 vol %	10.02 vol %
Accuracy	0.5%	5.1%	0.0%	0.4%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: H₂S

Applicable NSPS Subpart: I

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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: 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 (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	12/15/23	12/15/23
Audit Gas Cylinder No.	LL158284	EY0001806
Date of Audit Gas Cert.	8/18/22	9/2/22
Type of Certification	EPA Protocol 1	EPA Protocol 1
Certified Audit Value (ppmv)	75.0	167.8
CEM Response Value (ppmv)	77.7	153.0
Accuracy	3.6%	8.8%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: H₂S

Applicable NSPS Subpart: J and Ja

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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: 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 (CGA):

	<u>H₂S #1</u> <u>(low scale)</u>	<u>H₂S #2</u> <u>(high scale)</u>
Date of Audit	12/15/23	12/15/23
Audit Gas Cylinder No.	BLM-003489	EY0001848
Date of Audit Gas Cert.	8/18/22	9/2/22
Type of Certification	EPA Protocol 1	EPA Protocol 1
Certified Audit Value (ppmv)	74.5	165.4
CEM Response Value (ppmv)	74.1	173.3
Accuracy	0.6%	4.8%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: H₂S

Applicable NSPS Subpart: J

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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: Merox Disulfide Separator to Platformer Charge Heater

CEM Sampling Location: Area 4 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	12/15/23	12/15/23
Audit Gas Cylinder No.	LL74335	L141209
Date of Audit Gas Cert.	8/18/22	9/2/22
Type of Certification	EPA Protocol 1	EPA Protocol 1
Certified Audit Value (ppmv)	74.9	164.2
CEM Response Value (ppmv)	76.0	159.7
Accuracy	1.5%	2.7%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: H₂S

Applicable NSPS Subpart: I

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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: Hydrocracker & Hydrotreater Charge Heaters (EPN 1-00, EQT 0009)

CEM Sampling Location: Area 6 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	12/14/23	12/14/23
Audit Gas Cylinder No.	LL49233	BLM002816
Date of Audit Gas Cert.	1/3/23	1/3/23
Type of Certification	EPA Protocol 1	EPA Protocol 1
Certified Audit Value (ppmv)	75.2	159.8
CEM Response Value (ppmv)	70.7	154.7
Accuracy	6.0%	3.2%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: H₂S

Applicable NSPS Subpart: I

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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: Boilers B-5 (EPN 2-00, EQT 0030) and B-6 (EPN 3-00, EQT 0048)

CEM Sampling Location: Area 6 Boilers Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	12/15/23	12/15/23
Audit Gas Cylinder No.	CC122417	CC151402
Date of Audit Gas Cert.	8/1/22	8/1/22
Type of Certification	EPA Protocol 1	EPA Protocol 1
Certified Audit Value (ppmv)	74.6	175.4
CEM Response Value (ppmv)	71.0	181.0
Accuracy	4.8%	3.2%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: NO_x

Applicable NSPS Subpart: Db

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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 (CGA):

	NO _x #1 <u>(low scale)</u>	NO _x #2 <u>(high scale)</u>	O ₂ #1 <u>(low scale)</u>	O ₂ #2 <u>(high scale)</u>
Date of Audit	11/9/23	11/9/23	11/9/23	11/9/23
Audit Gas Cylinder No.	LL23428	LL67372	CC483685	BLM004951
Date of Audit Gas Cert.	3/21/22	9/5/23	5/23/16	4/22/19
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	25.0 ppmv	55.8 ppmv	6.00 vol %	10.04 vol %
CEM Response Value	24.8 ppmv	54.8 ppmv	6.34 vol %	10.40 vol %
Accuracy	0.8%	1.8%	5.7%	3.6%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: NO_x

Applicable NSPS Subpart: Db

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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 (CGA):

	NO _x #1 <u>(low scale)</u>	NO _x #2 <u>(high scale)</u>	O ₂ #1 <u>(low scale)</u>	O ₂ #2 <u>(high scale)</u>
Date of Audit	11/9/23	11/9/23	11/9/23	11/9/23
Audit Gas Cylinder No.	LL23428	LL67372	CC483685	BLM004951
Date of Audit Gas Cert.	3/21/22	9/5/23	5/23/16	4/22/19
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	25.0 ppmv	55.8 ppmv	6.00 vol %	10.04 vol %
CEM Response Value	25.3 ppmv	56.0 ppmv	6.09 vol %	10.09 vol %
Accuracy	1.2%	0.4%	1.5%	0.5%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: NO_x

Applicable NSPS Subpart: Db

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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 (CGA):

	<u>NO_x #1</u> <u>(low scale)</u>	<u>NO_x #2</u> <u>(high scale)</u>	<u>O₂ #1</u> <u>(low scale)</u>	<u>O₂ #2</u> <u>(high scale)</u>
Date of Audit	12/15/23	12/15/23	12/15/23	12/15/23
Audit Gas Cylinder No.	SG9167966BAL	CC89303	LL269	LL168197
Date of Audit Gas Cert.	5/31/16	5/31/16	4/25/16	4/25/16
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	126.9 ppmv	270.5 ppmv	6.03 vol %	10.10 vol %
CEM Response Value	126.7 ppmv	267.0 ppmv	5.63 vol %	9.60 vol %
Accuracy	0.2%	1.3%	6.6%	5.0%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: NO_x

Applicable NSPS Subpart: Ja

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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):

	NO _x at 0% O ₂	O ₂ , vol % (dry)
Date of Audit	11/20/23	11/20/23
Reference Method	EPA Method 7E	EPA Method 3A
Average RM Value	23.33 ppmvd	8.52 vol %
Average CEM Value	20.32 ppmvd	8.54 vol %
Accuracy	14.89 %	1.86 %
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: Ja

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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 (CGA):

<u>CGA</u>	<u>NO_x #1 (low scale)</u>	<u>NO_x #2 (high scale)</u>	<u>O₂ #1 (low scale)</u>	<u>O₂ #2 (high scale)</u>
Date of Audit	11/14/23	11/14/23	11/14/23	11/14/23
Audit Gas Cylinder No.	LL13923	CC416948	CC483649	CC148318
Date of Audit Gas Cert.	9/7/22	6/2/16	5/23/16	5/23/16
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	25.7 ppmv	55.5 ppmv	6.00 vol %	9.99 vol %
CEM Response Value	25.0 ppmv	50.5 ppmv	6.20 vol %	10.18 vol %
Accuracy	2.8%	9.0%	3.3%	1.9%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: NO_x

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

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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 (CGA):

<u>CGA</u>	<u>NO_x #1 (low scale)</u>	<u>NO_x #2 (high scale)</u>	<u>O₂ #1 (low scale)</u>	<u>O₂ #2 (high scale)</u>
Date of Audit	11/9/23	11/9/23	11/9/23	11/9/23
Audit Gas Cylinder No.	LL172550	CC319153	CC483638	CC222165
Date of Audit Gas Cert.	9/28/23	6/2/16	5/23/16	5/23/16
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	25.0 ppmv	55.4 ppmv	5.99 vol %	9.96 vol %
CEM Response Value	27.3 ppmv	58.8 ppmv	5.91 vol %	9.90 vol %
Accuracy	9.2%	6.1%	1.4%	0.6%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: NO_x

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

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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 (NO_x)/ 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 (CGA):

<u>CGA</u>	<u>NO_x #1 (low scale)</u>	<u>NO_x #2 (high scale)</u>	<u>O₂ #1 (low scale)</u>	<u>O₂ #2 (high scale)</u>
Date of Audit	11/14/23	11/14/23	11/14/23	11/14/23
Audit Gas Cylinder No.	BLM004490	LL64381	LL100497	LL67009
Date of Audit Gas Cert.	9/7/22	5/6/19	4/22/19	4/22/19
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	25.5 ppmv	55.2 ppmv	6.02 vol %	10.03 vol %
CEM Response Value	24.6 ppmv	51.1 ppmv	6.00 vol %	10.02 vol %
Accuracy	3.6%	7.4%	0.3%	0.1%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: H₂S

Applicable NSPS Subpart: Ja

Reporting period dates: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	11/15/23	11/15/23
Audit Gas Cylinder No.	CC233507	ALM014455
Date of Audit Gas Cert.	8/17/22	8/16/22
Type of Certification	Certified Gas ¹	Certified Gas ¹
Certified Audit Value	71.2 ppmv	153.2 ppmv
CEM Response Value	75.3 ppmv	156.0 ppmv
Accuracy	5.8%	1.8%
Standard	<15%	<15%

¹ Methane balanced audit gas required by this analyzer cannot be certified using EPA Protocol 1.

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: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	11/14/23	11/14/23
Audit Gas Cylinder No.	CC233507	ALM014455
Date of Audit Gas Cert.	8/17/22	8/16/22
Type of Certification	Certified Gas ¹	Certified Gas ¹
Certified Audit Value	71.2 ppmv	153.2 ppmv
CEM Response Value	79.0 ppmv	163.0 ppmv
Accuracy	11.0%	6.4%
Standard	<15%	<15%

¹ Methane balanced audit gas required by this analyzer cannot be certified using EPA Protocol 1.

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: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	11/9/23	11/9/23
Audit Gas Cylinder No.	CC233507	ALM014455
Date of Audit Gas Cert.	8/17/22	8/16/22
Type of Certification	Certified Gas ¹	Certified Gas ¹
Certified Audit Value	71.2 ppmv	153.2 ppmv
CEM Response Value	66.0 ppmv	150.0 ppmv
Accuracy	7.3%	2.1%
Standard	<15%	<15%

¹ Methane balanced audit gas required by this analyzer cannot be certified using EPA Protocol 1.

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: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	12/29/23	12/29/23
Audit Gas Cylinder No.	CC753252	CC211986
Date of Audit Gas Cert.	5/3/23	12/20/23
Type of Certification	EPA Protocol 1	Certified Gas ¹
Certified Audit Value (ppmv)	1012.0 ppmv	5504.0 ppmv
CEM Response Value (ppmv)	1041.1 ppmv	5576.4 ppmv
Accuracy	2.9%	1.3%
Standard	<15%	<15%

¹ EPA Protocol 1 certified gases are not available for H₂S concentrations 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: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	12/29/23	12/29/23
Audit Gas Cylinder No.	CC753252	CC211986
Date of Audit Gas Cert.	5/3/23	12/20/23
Type of Certification	EPA Protocol 1	Certified Gas ¹
Certified Audit Value (ppmv)	1012.0 ppmv	5504.0 ppmv
CEM Response Value (ppmv)	1028.6 ppmv	5494.1 ppmv
Accuracy	1.6%	0.2%
Standard	<15%	<15%

¹ EPA Protocol 1 certified gases are not available for H₂S concentrations 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: 10/1/23 to 12/31/23

Date submitted: 1/30/24

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

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	12/29/23	12/29/23
Audit Gas Cylinder No.	CC753252	CC211986
Date of Audit Gas Cert.	5/3/23	12/20/23
Type of Certification	EPA Protocol 1	Certified Gas ¹
Certified Audit Value (ppmv)	1012.0 ppmv	5504.0 ppmv
CEM Response Value (ppmv)	1070.2 ppmv	5740.1 ppmv
Accuracy	5.8%	4.3%
Standard	<15%	<15%

¹ EPA Protocol 1 certified gases are not available for H₂S concentrations 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: **465000***The information contained below satisfies the requirements of the NSPS Subpart Ja 60.108a(c)(6).*

Report: Update
 Refinery: Valero (Meraux)
 Incident Type: Flaring (Flow and SO2)
 Emissions Source(s): North Flare (EPN 20-72, EQT 0035)
South Flare (EPN 3-77, EQT 0049)

Date of Event: 12/5/22
 Date Analysis Completed: 1/19/23

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

On December 5, 2022 at approximately 16:34, Valero experienced a loss of 3rd party natural gas supply to the refinery. At the time of the incident, one of the two pipelines supplying natural gas to the refinery was blocked in for repairs and the pressure regulator failed on the line that remained in service. The loss of natural gas pressure caused multiple heaters and the refinery's two main boilers to shutdown, which upset several refinery units. The majority of the flaring occurred when the Hydrocracker unit performed an automatic depressurization to the North Flare.

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

Date and Time the discharge was first identified 12/5/22 16:58
 Date/Time the discharge had ceased 12/6/22 6:23
 Duration of Discharge (Calculated) 13.4 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 has determined several factors that contributed to this incident, including the maintenance of Valero-owned pressure regulators on the natural gas supply line.

(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) Evaluate long term set up of natural gas regulator systems supplying the refinery.
- 2) Create pressure alarm(s) in the DCS to notify operations of malfunctioning regulator.
- 3) Add pressure gauge visuals to operator rounds for natural gas regulator systems supplying the refinery.

(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) *Evaluate long term set up of natural gas regulator systems supplying the refinery.*

Commencement Date: 1/19/23

Completed: 2/14/23

Additional Corrective Action created from completion of engineering design and work package.

2) *Create pressure alarm(s) in the DCS to notify operations of malfunctioning regulator.*

Completed Date: 1/19/23

Completed: 2/17/23

3) *Add pressure gauge visuals to operator rounds for natural gas regulator systems supplying the refinery.*

Commencement Date: 1/19/23

Completed: 2/28/23

4) *Complete the engineering design and work package and for the upgrades to the natural gas regulator systems supplying the refinery.*

Commencement Date: 2/14/23

Completed: 6/8/23

Additional Corrective Action created for installation.

5) *Complete installation of the upgrades to the natural gas regulator systems supplying the refinery.*

Commencement Date: 6/8/23

Estimated Completion Date: 7/2/24

Extended estimated completion date to consider other design alternatives.

(8.)

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

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

		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	Last hour of 24-hr Period	24-hr cumulative volume of flared gas above Baseline	TRS or H2S ppm (24-hr average, flow-weighted)	24-hr cumulative SO2	24-hr cumulative reduced sulfur
		SCF	ppmv	lbs	lbs as H2S
12/4/2022 16:00	12/5/2022 15:00	106,958	20	0.7	0.0
12/4/2022 17:00	12/5/2022 16:00	108,752	53	2.2	0.0
12/4/2022 18:00	12/5/2022 17:00	1,025,710	88	131.1	0.7
12/4/2022 19:00	12/5/2022 18:00	2,904,984	187	876.0	4.7
12/4/2022 20:00	12/5/2022 19:00	3,266,457	517	1361.5	7.3
12/4/2022 21:00	12/5/2022 20:00	4,314,639	705	2150.9	11.6
12/4/2022 22:00	12/5/2022 21:00	4,912,074	966	2778.2	14.9
12/4/2022 23:00	12/5/2022 22:00	5,402,499	1157	3155.9	17.0
12/5/2022 00:00	12/5/2022 23:00	5,991,743	1295	3485.2	18.7
12/5/2022 01:00	12/6/2022 00:00	6,563,675	1410	3750.2	20.2
12/5/2022 02:00	12/6/2022 01:00	6,845,204	1495	3849.1	20.7
12/5/2022 03:00	12/6/2022 02:00	6,924,896	1514	3856.0	20.7
12/5/2022 04:00	12/6/2022 03:00	7,046,974	1533	3866.0	20.8
12/5/2022 05:00	12/6/2022 04:00	7,167,591	1542	3871.3	20.8
12/5/2022 06:00	12/6/2022 05:00	7,254,828	1552	3875.5	20.8
12/5/2022 07:00	12/6/2022 06:00	7,278,260	1560	3876.6	20.8
12/5/2022 08:00	12/6/2022 07:00	7,278,272	1564	3876.8	20.8
12/5/2022 09:00	12/6/2022 08:00	7,278,286	1567	3876.9	20.8
12/5/2022 10:00	12/6/2022 09:00	7,278,272	1571	3877.0	20.8
12/5/2022 11:00	12/6/2022 10:00	7,295,284	1588	3878.8	20.8
12/5/2022 12:00	12/6/2022 11:00	7,306,216	1596	3879.5	20.8
12/5/2022 13:00	12/6/2022 12:00	7,306,211	1599	3879.6	20.8
12/5/2022 14:00	12/6/2022 13:00	7,306,200	1602	3879.7	20.8
12/5/2022 15:00	12/6/2022 14:00	7,306,216	1606	3879.8	20.8
12/5/2022 16:00	12/6/2022 15:00	7,306,221	1609	3880.0	20.8
12/5/2022 17:00	12/6/2022 16:00	7,304,423	1580	3878.7	20.8
12/5/2022 18:00	12/6/2022 17:00	6,387,432	1549	3749.9	20.2
12/5/2022 19:00	12/6/2022 18:00	4,508,164	1453	3005.1	16.1
12/5/2022 20:00	12/6/2022 19:00	4,146,668	1126	2519.7	13.5
12/5/2022 21:00	12/6/2022 20:00	3,098,501	941	1730.4	9.3
12/5/2022 22:00	12/6/2022 21:00	2,501,057	684	1103.2	5.9
12/5/2022 23:00	12/6/2022 22:00	2,010,638	496	725.6	3.9
12/6/2022 00:00	12/6/2022 23:00	1,421,383	361	396.4	2.1
12/6/2022 01:00	12/7/2022 00:00	849,440	250	131.6	0.7
12/6/2022 02:00	12/7/2022 01:00	567,931	168	32.8	0.2
12/6/2022 03:00	12/7/2022 02:00	488,256	152	26.0	0.1

Subpart Ja Root Cause / Corrective Action AnalysisIncident Number: 472571*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: 6/18/23
 Date Analysis Completed: 7/27/23

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

A description of the Discharge:

On June 18, 2023 at approximately 00:26, Valero experienced the automatic shutdown of the Pressure Swing Absorption (PSA) hydrogen recovery unit which caused the feed to be rerouted to the North Flare. Valero operations and maintenance personnel investigated and determined that the issue was caused by a malfunctioning control valve. Once this valve was identified, the affected bed was taken offline and the PSA was restarted.

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

 Date and Time the discharge was first identified 6/18/23 0:26
 Date/Time the discharge had ceased 6/18/23 1:35
 Duration of Discharge (Calculated) 1.1 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 that the Root Cause of this discharge to be that preventative maintenance on the control valves on the PSA unit was not being performed at the required frequency recommended by the manufacturer based on cycle counts. Valero was performing preventative maintenance on a unit shut down frequency that was allowing some valves to accumulate cycle counts that were beyond what the manufacturer recommended.

(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) Create a system in the refinery's DCS to track PSA control valve cycle counts.

2) Quantify existing PSA control valve cycle counts using historical data to identify any valves that are at risk of failure. Create schedule to address any at risk valve identified.

3) Establish a new preventative maintenance plan for each PSA control valve based on cycle counts.

(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) *Create a system in the refinery's DCS to track PSA control valve cycle counts.*

Commencement Date: 7/27/23

Completed: 12/13/23

2) *Quantify existing PSA control valve cycle counts using historical data to identify any valves that are at risk of failure. Create schedule to address any at risk valve identified.*

Commencement Date: 7/27/23

Completed: 11/13/23

3) *Establish a new preventative maintenance plan for each PSA control valve based on cycle counts.*

Commencement Date: 7/27/23

Completed: 11/13/23

(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
6/17/2023 00:00	6/17/2023 23:00	118	23	0.8	0.0
6/17/2023 01:00	6/18/2023 00:00	561,899	86	145.0	0.8
6/17/2023 02:00	6/18/2023 01:00	690,197	172	192.1	1.0
6/17/2023 03:00	6/18/2023 02:00	690,188	175	192.3	1.0
6/17/2023 04:00	6/18/2023 03:00	690,160	177	192.3	1.0
6/17/2023 05:00	6/18/2023 04:00	690,159	178	192.4	1.0
6/17/2023 06:00	6/18/2023 05:00	690,159	180	192.4	1.0
6/17/2023 07:00	6/18/2023 06:00	690,159	181	192.5	1.0
6/17/2023 08:00	6/18/2023 07:00	690,162	183	192.5	1.0
6/17/2023 09:00	6/18/2023 08:00	690,185	184	192.6	1.0
6/17/2023 10:00	6/18/2023 09:00	690,166	185	192.6	1.0
6/17/2023 11:00	6/18/2023 10:00	690,166	187	192.7	1.0
6/17/2023 12:00	6/18/2023 11:00	690,172	188	192.7	1.0
6/17/2023 13:00	6/18/2023 12:00	690,172	189	192.8	1.0
6/17/2023 14:00	6/18/2023 13:00	690,195	190	192.8	1.0
6/17/2023 15:00	6/18/2023 14:00	690,195	191	192.8	1.0
6/17/2023 16:00	6/18/2023 15:00	690,212	192	192.9	1.0
6/17/2023 17:00	6/18/2023 16:00	690,227	194	192.9	1.0
6/17/2023 18:00	6/18/2023 17:00	690,233	195	193.0	1.0
6/17/2023 19:00	6/18/2023 18:00	690,223	196	193.0	1.0
6/17/2023 20:00	6/18/2023 19:00	690,223	197	193.0	1.0
6/17/2023 21:00	6/18/2023 20:00	690,223	198	193.1	1.0
6/17/2023 22:00	6/18/2023 21:00	690,230	199	193.1	1.0
6/17/2023 23:00	6/18/2023 22:00	690,237	200	193.1	1.0
6/18/2023 00:00	6/18/2023 23:00	690,225	201	193.2	1.0
6/18/2023 01:00	6/19/2023 00:00	128,418	139	49.0	0.3

Subpart Ja Root Cause / Corrective Action Analysis

Incident Number: **472879**

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

Report: Update
 Refinery: Valero (Meraux)
 Incident Type: Flaring (Flow and SO2)
SRU (SO2)
 Emissions Source(s): North Flare (EPN 20-72, EQT 0035)
South Flare (EPN 3-77, EQT 0049)
#2 SRU Incinerator (EPN 1-93, EQT 0019)
#3 SRU Incinerator (EPN 5-00, EQT 0079)

Date of Event: 6/26/23
 Date Analysis Completed: 8/10/23

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

A description of the Discharge:

On June 26, 2023, at approximately 00:00, Valero experienced an electrical fault on its 13.8 KV electrical distribution system which resulted in the loss of several pieces of equipment powered by this system. Multiple refinery units were upset and the #3 Sulfur Recovery Unit (SRU) automatically shutdown. Valero quickly initiated its sulfur shedding procedures and transferred the remaining acid gas feed to the #2 SRU, which had remained operating through the power loss. The combined SO2 emissions from the #2 SRU and #3 SRU exceeded 500 lbs above allowed in a 24 hour period. Additionally, flaring from this event also exceeded 500 lbs SO2 and 500,000 scf above baseline in a 24 hour period.

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

	North and South Flare	#2 SRU	#3 SRU
Date/Time discharge was first identified	6/26/23 0:10	6/26/23 0:00	6/26/23 0:00
Date/Time discharge had ceased	6/27/23 6:32	6/27/23 0:08	6/26/23 21:37
Duration of Discharge (Calculated)	30.4	24.1	21.6 hrs

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

The steps taken to limit the emissions during the discharge:

Valero followed its Operations Procedures to the maximum extent possible to minimize the SO2 emissions of this discharge

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

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

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

Did the discharge result from a planned startup or shutdown? No (Yes/No)
 Was the flare management plan followed? Yes (Yes/No/N/A)
 Is the event exempt from a RC/CCA based on the answers above? No (Yes/No)
 - If yes, skip section 5-7.

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

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

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

Valero determined that the root cause of the fault on the 13.8 KV electrical distribution system was the failure of a capacitor in the termination box to the motor for one of the Makeup Gas Compressors in the Hydrocracker unit. Valero determined that this capacitor failed due to excessive age and moisture intrusion into the termination box. Additionally, Valero determined that Sour Water Acid Gas was flared from the #2 Sour Water Stripper after the automatic shutdown of the #3 SRU. This contributed to the overall amount of SO2 flared.

(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 necessary.

Is corrective action required? Yes (Yes/No)

- 1) Replace the termination box and components for the other Makeup Gas Compressor in the Hydrocracker unit.
- 2) Review existing medium voltage motors and develop plan to replace components.
- 3) Update medium voltage motor preventative maintenance recondition scope to capture replacement of arrestors and capacitors.
- 4) Create repair plans for each identified motor and develop an implementation schedule.
- 5) After reviewing how other Valero sites mitigate sending acid gas to the flare, determine what additional mitigation(s) to implement (blinds, blocking in, car seals, control scheme narrative changes/over ride).

(7.)

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 termination box and components for the other Makeup Gas Compressor in the Hydrocracker unit.*

Commencement Date: 8/10/23

Estimated Completion Date: 5/7/24

2) *Review existing medium voltage motors and develop plan to replace components.*

Commencement Date: 8/10/23

Completed: 11/17/23

3) *Create repair plans for each identified motor and develop an implementation schedule.*

Commencement Date: 8/10/23

Completed: 12/8/23

4) *Update medium voltage motor preventative maintenance recondition scope to capture replacement of arrestors and capacitors.*

Commencement Date: 8/10/23

Completed: 10/25/23

5) *After reviewing how other Valero sites mitigate sending acid gas to the flare, determine what additional mitigation(s) to implement (blinds, blocking in, car seals, control scheme narrative changes/over ride).*

Commencement Date: 8/10/23

Completed: 12/11/23

(8.) North and South Flares

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
6/25/2023 00:00	6/25/2023 23:00	205	38	1.4	0.0
6/25/2023 01:00	6/26/2023 00:00	70,561	409	118.3	0.6
6/25/2023 02:00	6/26/2023 01:00	142,261	1327	412.0	2.2
6/25/2023 03:00	6/26/2023 02:00	207,537	3524	1058.6	5.7
6/25/2023 04:00	6/26/2023 03:00	351,588	5245	2101.1	11.3
6/25/2023 05:00	6/26/2023 04:00	497,710	6416	2820.5	15.2
6/25/2023 06:00	6/26/2023 05:00	642,958	6611	2940.8	15.8
6/25/2023 07:00	6/26/2023 06:00	791,798	6764	3037.0	16.3
6/25/2023 08:00	6/26/2023 07:00	941,583	6938	3147.7	16.9
6/25/2023 09:00	6/26/2023 08:00	1,086,756	7105	3250.2	17.5
6/25/2023 10:00	6/26/2023 09:00	1,244,296	7249	3346.5	18.0
6/25/2023 11:00	6/26/2023 10:00	1,386,140	7361	3414.1	18.3
6/25/2023 12:00	6/26/2023 11:00	1,526,263	7436	3458.9	18.6
6/25/2023 13:00	6/26/2023 12:00	1,664,523	7486	3489.0	18.7
6/25/2023 14:00	6/26/2023 13:00	1,853,711	7548	3538.6	19.0
6/25/2023 15:00	6/26/2023 14:00	1,991,691	7666	3608.2	19.4
6/25/2023 16:00	6/26/2023 15:00	2,126,106	7730	3645.0	19.6
6/25/2023 17:00	6/26/2023 16:00	2,272,130	7766	3667.9	19.7
6/25/2023 18:00	6/26/2023 17:00	2,423,750	7802	3691.7	19.8
6/25/2023 19:00	6/26/2023 18:00	2,580,006	7835	3714.5	20.0
6/25/2023 20:00	6/26/2023 19:00	2,729,543	7863	3733.1	20.1
6/25/2023 21:00	6/26/2023 20:00	2,876,858	7891	3751.2	20.2
6/25/2023 22:00	6/26/2023 21:00	3,019,264	7923	3771.2	20.3
6/25/2023 23:00	6/26/2023 22:00	3,161,571	7952	3789.4	20.4
6/26/2023 00:00	6/26/2023 23:00	3,302,717	7994	3814.8	20.5
6/26/2023 01:00	6/27/2023 00:00	3,372,970	7656	3718.5	20.0
6/26/2023 02:00	6/27/2023 01:00	3,447,409	6764	3441.6	18.5
6/26/2023 03:00	6/27/2023 02:00	3,531,867	4588	2809.4	15.1
6/26/2023 04:00	6/27/2023 03:00	3,531,549	2884	1778.0	9.6
6/26/2023 05:00	6/27/2023 04:00	3,539,944	1735	1073.7	5.8
6/26/2023 06:00	6/27/2023 05:00	3,545,475	1568	972.5	5.2
6/26/2023 07:00	6/27/2023 06:00	3,478,003	1440	885.5	4.8
6/26/2023 08:00	6/27/2023 07:00	3,328,244	1272	775.1	4.2
6/26/2023 09:00	6/27/2023 08:00	3,183,061	1114	672.9	3.6
6/26/2023 10:00	6/27/2023 09:00	3,025,526	976	576.8	3.1
6/26/2023 11:00	6/27/2023 10:00	2,883,682	872	509.5	2.7
6/26/2023 12:00	6/27/2023 11:00	2,743,559	805	465.0	2.5
6/26/2023 13:00	6/27/2023 12:00	2,605,299	763	435.2	2.3
6/26/2023 14:00	6/27/2023 13:00	2,416,096	708	385.8	2.1
6/26/2023 15:00	6/27/2023 14:00	2,278,741	597	316.5	1.7
6/26/2023 16:00	6/27/2023 15:00	2,147,959	540	280.1	1.5
6/26/2023 17:00	6/27/2023 16:00	2,001,934	512	257.4	1.4
6/26/2023 18:00	6/27/2023 17:00	1,850,309	483	233.8	1.3
6/26/2023 19:00	6/27/2023 18:00	1,694,030	458	211.4	1.1
6/26/2023 20:00	6/27/2023 19:00	1,544,455	437	193.0	1.0
6/26/2023 21:00	6/27/2023 20:00	1,397,090	417	175.2	0.9
6/26/2023 22:00	6/27/2023 21:00	1,254,684	392	155.4	0.8
6/26/2023 23:00	6/27/2023 22:00	1,112,374	371	137.6	0.7
6/27/2023 00:00	6/27/2023 23:00	971,228	337	112.4	0.6
6/27/2023 01:00	6/28/2023 00:00	830,614	311	92.0	0.5
6/27/2023 02:00	6/28/2023 01:00	684,469	292	75.5	0.4
6/27/2023 03:00	6/28/2023 02:00	534,723	278	61.3	0.3
6/27/2023 04:00	6/28/2023 03:00	391,005	269	50.5	0.3

(9.) #2 and #3 SRU**The measured or calculated cumulative quantity of gas discharged over the discharge duration.***Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.*

		(60.108a(c)(6)(iii))	(60.108a(c)(6)(vi))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	Last hour of 24-hr Period	24-hr cumulative volume	SO2 ppm	24-hr cumulative SO2	24-hr cumulative reduced
			(24-hr average, flow-weighted) ¹	above allowable ²	sulfur above allowable
		SCF	ppmv	lbs	lbs as H2S
6/25/2023 00:00	6/25/2023 23:00	674,090	42	0.0	0.0
6/25/2023 01:00	6/26/2023 00:00	729,755	66	56.7	0.0
6/25/2023 02:00	6/26/2023 01:00	359,018	125	123.2	0.1
6/25/2023 03:00	6/26/2023 02:00	359,049	188	201.9	0.2
6/25/2023 04:00	6/26/2023 03:00	374,008	253	276.6	0.3
6/25/2023 05:00	6/26/2023 04:00	394,266	319	360.7	0.5
6/25/2023 06:00	6/26/2023 05:00	354,400	372	434.5	0.6
6/25/2023 07:00	6/26/2023 06:00	333,402	428	507.7	0.7
6/25/2023 08:00	6/26/2023 07:00	344,897	482	587.6	0.8
6/25/2023 09:00	6/26/2023 08:00	344,523	525	639.9	0.8
6/25/2023 10:00	6/26/2023 09:00	452,987	627	707.8	0.8
6/25/2023 11:00	6/26/2023 10:00	379,085	622	781.8	0.9
6/25/2023 12:00	6/26/2023 11:00	385,517	683	848.7	1.0
6/25/2023 13:00	6/26/2023 12:00	367,045	711	902.7	1.0
6/25/2023 14:00	6/26/2023 13:00	370,475	751	957.6	1.0
6/25/2023 15:00	6/26/2023 14:00	395,641	832	1011.0	1.0
6/25/2023 16:00	6/26/2023 15:00	402,246	846	1035.9	1.0
6/25/2023 17:00	6/26/2023 16:00	381,860	834	1076.3	1.0
6/25/2023 18:00	6/26/2023 17:00	377,920	877	1140.8	1.1
6/25/2023 19:00	6/26/2023 18:00	398,696	961	1218.9	1.2
6/25/2023 20:00	6/26/2023 19:00	443,182	1097	1301.5	1.3
6/25/2023 21:00	6/26/2023 20:00	451,155	1171	1385.4	1.4
6/25/2023 22:00	6/26/2023 21:00	501,422	1229	1431.5	1.6
6/25/2023 23:00	6/26/2023 22:00	480,465	1258	1467.2	1.8
6/26/2023 00:00	6/26/2023 23:00	404,089	1362	1482.8	1.9
6/26/2023 01:00	6/27/2023 00:00	374,603	1407	1426.1	1.9
6/26/2023 02:00	6/27/2023 01:00	378,133	1408	1359.7	1.8
6/26/2023 03:00	6/27/2023 02:00	409,700	1373	1282.5	1.6
6/26/2023 04:00	6/27/2023 03:00	364,759	1272	1207.8	1.5
6/26/2023 05:00	6/27/2023 04:00	352,582	1197	1123.8	1.4
6/26/2023 06:00	6/27/2023 05:00	342,841	1124	1050.0	1.3
6/26/2023 07:00	6/27/2023 06:00	342,725	1073	976.8	1.2
6/26/2023 08:00	6/27/2023 07:00	346,633	1018	896.9	1.0
6/26/2023 09:00	6/27/2023 08:00	361,379	955	844.5	1.0
6/26/2023 10:00	6/27/2023 09:00	378,357	909	776.7	1.0
6/26/2023 11:00	6/27/2023 10:00	429,037	848	702.7	0.9
6/26/2023 12:00	6/27/2023 11:00	455,200	779	635.7	0.9
6/26/2023 13:00	6/27/2023 12:00	464,267	700	581.7	0.9
6/26/2023 14:00	6/27/2023 13:00	469,944	619	526.9	0.9
6/26/2023 15:00	6/27/2023 14:00	498,081	552	473.4	0.9

¹ SRU SO2 CEMS are spanned to 500 ppm. For emissions calculations, Valero assumes 2 times the span, 1000 ppm, for CEMS readings >= 500 ppm.² Tail Gas Treater bypass emissions are calculated using a mass balance method, not using the flow and concentration values listed here.

Subpart Ja Root Cause / Corrective Action Analysis		Incident Number: <u>N/A</u>
<i>The information contained below satisfies the requirements of the NSPS Subpart Ja 60.108a(c)(6).</i>		
Report: <u>Final</u>		
Refinery: <u>Valero (Meraux)</u>		
Incident Type: <u>Flaring (Flow)</u>	Date of Event: <u>10/5/23</u>	
Emissions Source(s): <u>North Flare (EPN 20-72, EQT 0035)</u>	Date Analysis Completed: <u>N/A</u>	
(1.) (60.108a(c)(6)(i))		
A description of the Discharge: <i>This discharge resulted from the normal shutdown of the Middle Distillate Hydrotreater Unit for the planned replacement of reactor catalyst. The discharge included activities such as reactor cooldown, depressurization, and Nitrogen purging.</i>		
(2.) (60.108a(c)(6)(ii)) and (60.108a(c)(6)(ix))		
Date and Time the discharge was first identified <u>10/5/23 15:26</u>		
Date/Time the discharge had ceased <u>10/9/23 0:50</u>		
Duration of Discharge (Calculated) <u>81.4</u> hrs.		
(3.) (60.108a(c)(6)(viii))		
The steps taken to limit the emissions during the discharge: <i>Valero followed its Flare Minimization Plan and Operations Procedures to minimize the volume of 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.</i>		
(4.) (60.108a(c)(6)(xi))		
Necessity of RC/CAA: Determine and state whether a RC/CAA is necessary: <i>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.</i>		
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? - If yes, skip section 5-7.	<u>Yes</u>	(Yes/No)
(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?	<u>No</u>	(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?	<u>No</u>	(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)(viii))
First hour of 24-hr Period	Last hour of 24-hr Period	24-hr cumulative volume of flared gas above Baseline	TRS or H2S ppm (24-hr average, flow-weighted)	24-hr cumulative SO2	24-hr cumulative reduced sulfur
		SCF	ppmv	lbs	lbs as H2S
10/4/2023 15:00	10/5/2023 14:00	9,411	21	1.2	0.0
10/4/2023 16:00	10/5/2023 15:00	33,145	1005	6.6	0.0
10/4/2023 17:00	10/5/2023 16:00	80,299	672	12.8	0.1
10/4/2023 18:00	10/5/2023 17:00	144,788	476	18.5	0.1
10/4/2023 19:00	10/5/2023 18:00	229,605	408	24.8	0.1
10/4/2023 20:00	10/5/2023 19:00	291,488	598	31.7	0.2
10/4/2023 21:00	10/5/2023 20:00	321,817	420	34.4	0.2
10/4/2023 22:00	10/5/2023 21:00	333,049	276	35.5	0.2
10/4/2023 23:00	10/5/2023 22:00	431,571	292	40.6	0.2
10/5/2023 00:00	10/5/2023 23:00	498,599	289	44.2	0.2
10/5/2023 01:00	10/6/2023 00:00	568,216	290	47.9	0.3
10/5/2023 02:00	10/6/2023 01:00	596,806	279	49.6	0.3
10/5/2023 03:00	10/6/2023 02:00	617,893	273	50.9	0.3
10/5/2023 04:00	10/6/2023 03:00	696,918	291	55.1	0.3
10/5/2023 05:00	10/6/2023 04:00	754,720	288	58.2	0.3
10/5/2023 06:00	10/6/2023 05:00	776,704	274	59.5	0.3
10/5/2023 07:00	10/6/2023 06:00	797,386	273	60.8	0.3
10/5/2023 08:00	10/6/2023 07:00	843,982	286	63.4	0.3
10/5/2023 09:00	10/6/2023 08:00	878,541	282	65.4	0.4
10/5/2023 10:00	10/6/2023 09:00	913,965	330	67.7	0.4
10/5/2023 11:00	10/6/2023 10:00	933,923	273	69.0	0.4
10/5/2023 12:00	10/6/2023 11:00	975,940	470	72.9	0.4
10/5/2023 13:00	10/6/2023 12:00	1,031,530	580	79.0	0.4
10/5/2023 14:00	10/6/2023 13:00	1,098,631	983	91.3	0.5
10/5/2023 15:00	10/6/2023 14:00	1,184,019	419	97.8	0.5
10/5/2023 16:00	10/6/2023 15:00	1,291,464	330	100.0	0.5
10/5/2023 17:00	10/6/2023 16:00	1,557,121	216	105.3	0.6
10/5/2023 18:00	10/6/2023 17:00	1,770,681	298	113.6	0.6
10/5/2023 19:00	10/6/2023 18:00	1,960,443	354	123.8	0.7
10/5/2023 20:00	10/6/2023 19:00	2,203,573	292	131.9	0.7
10/5/2023 21:00	10/6/2023 20:00	2,573,175	933	192.0	1.0
10/5/2023 22:00	10/6/2023 21:00	2,952,340	334	213.2	1.1
10/5/2023 23:00	10/6/2023 22:00	3,257,114	302	228.5	1.2
10/6/2023 00:00	10/6/2023 23:00	3,582,927	299	244.7	1.3
10/6/2023 01:00	10/7/2023 00:00	3,901,763	302	260.7	1.4
10/6/2023 02:00	10/7/2023 01:00	4,262,935	297	278.5	1.5
10/6/2023 03:00	10/7/2023 02:00	4,627,794	297	296.4	1.6
10/6/2023 04:00	10/7/2023 03:00	4,933,829	293	311.2	1.7
10/6/2023 05:00	10/7/2023 04:00	5,246,115	294	326.4	1.8
10/6/2023 06:00	10/7/2023 05:00	5,555,846	297	341.7	1.8
10/6/2023 07:00	10/7/2023 06:00	5,739,964	234	348.6	1.9
10/6/2023 08:00	10/7/2023 07:00	5,835,885	153	349.8	1.9
10/6/2023 09:00	10/7/2023 08:00	6,026,853	157	353.8	1.9
10/6/2023 10:00	10/7/2023 09:00	6,160,508	262	359.1	1.9
10/6/2023 11:00	10/7/2023 10:00	6,268,871	345	365.6	2.0
10/6/2023 12:00	10/7/2023 11:00	6,313,231	854	375.1	2.0
10/6/2023 13:00	10/7/2023 12:00	6,365,099	1587	399.3	2.1
10/6/2023 14:00	10/7/2023 13:00	6,424,742	773	404.3	2.2
10/6/2023 15:00	10/7/2023 14:00	6,442,787	478	406.6	2.2
10/6/2023 16:00	10/7/2023 15:00	6,407,365	698	411.1	2.2

(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
10/6/2023 17:00	10/7/2023 16:00	6,207,744	764	415.0	2.2
10/6/2023 18:00	10/7/2023 17:00	6,061,323	794	419.3	2.3
10/6/2023 19:00	10/7/2023 18:00	5,894,670	855	419.2	2.3
10/6/2023 20:00	10/7/2023 19:00	5,673,363	945	418.5	2.2
10/6/2023 21:00	10/7/2023 20:00	5,448,461	587	373.5	2.0
10/6/2023 22:00	10/7/2023 21:00	5,324,316	360	367.9	2.0
10/6/2023 23:00	10/7/2023 22:00	5,305,742	377	371.8	2.0
10/7/2023 00:00	10/7/2023 23:00	5,051,184	145	355.5	1.9
10/7/2023 01:00	10/8/2023 00:00	4,837,033	90	338.5	1.8
10/7/2023 02:00	10/8/2023 01:00	4,489,833	200	320.6	1.7
10/7/2023 03:00	10/8/2023 02:00	4,125,053	273	302.7	1.6
10/7/2023 04:00	10/8/2023 03:00	3,757,551	269	284.9	1.5
10/7/2023 05:00	10/8/2023 04:00	3,404,958	269	267.7	1.4
10/7/2023 06:00	10/8/2023 05:00	3,091,229	353	252.6	1.4
10/7/2023 07:00	10/8/2023 06:00	2,908,390	1885	254.0	1.4
10/7/2023 08:00	10/8/2023 07:00	2,787,280	1762	259.0	1.4
10/7/2023 09:00	10/8/2023 08:00	2,579,220	269	254.1	1.4
10/7/2023 10:00	10/8/2023 09:00	2,427,412	268	247.6	1.3
10/7/2023 11:00	10/8/2023 10:00	2,316,203	268	240.9	1.3
10/7/2023 12:00	10/8/2023 11:00	2,248,497	2958	241.0	1.3
10/7/2023 13:00	10/8/2023 12:00	2,165,842	1140	216.9	1.2
10/7/2023 14:00	10/8/2023 13:00	2,056,627	269	200.8	1.1
10/7/2023 15:00	10/8/2023 14:00	1,970,175	268	193.1	1.0
10/7/2023 16:00	10/8/2023 15:00	1,891,001	267	182.2	1.0
10/7/2023 17:00	10/8/2023 16:00	1,802,370	927	171.9	0.9
10/7/2023 18:00	10/8/2023 17:00	1,704,894	987	160.6	0.9
10/7/2023 19:00	10/8/2023 18:00	1,631,613	863	150.4	0.8
10/7/2023 20:00	10/8/2023 19:00	1,581,055	964	142.6	0.8
10/7/2023 21:00	10/8/2023 20:00	1,440,499	1601	136.3	0.7
10/7/2023 22:00	10/8/2023 21:00	1,186,978	368	121.3	0.7
10/7/2023 23:00	10/8/2023 22:00	818,793	300	98.2	0.5
10/8/2023 00:00	10/8/2023 23:00	698,240	2581	106.0	0.6
10/8/2023 01:00	10/9/2023 00:00	540,312	2889	115.4	0.6
10/8/2023 02:00	10/9/2023 01:00	497,747	242	114.1	0.6

Subpart Ja Root Cause / Corrective Action Analysis		Incident Number: <u>N/A</u>
<i>The information contained below satisfies the requirements of the NSPS Subpart Ja 60.108a(c)(6).</i>		
Report: <u>Final</u>		
Refinery: <u>Valero (Meraux)</u>		
Incident Type: <u>Flaring (Flow)</u>	Date of Event: <u>11/26/23</u>	
Emissions Source(s): <u>North Flare (EPN 20-72, EQT 0035)</u>	Date Analysis Completed: <u>N/A</u>	
(1.) (60.108a(c)(6)(i))		
A description of the Discharge: <i>This discharge resulted from the normal shutdown of the Hydrocracker Unit for the planned replacement of reactor catalyst. The discharge included activities such as reactor cooldown, depressurization, and Nitrogen purging.</i>		
(2.) (60.108a(c)(6)(ii)) and (60.108a(c)(6)(ix))		
Date and Time the discharge was first identified <u>11/26/23 9:35</u>		
Date/Time the discharge had ceased <u>11/29/23 17:01</u>		
Duration of Discharge (Calculated) <u>79.4</u> hrs.		
(3.) (60.108a(c)(6)(viii))		
The steps taken to limit the emissions during the discharge: <i>Valero followed its Flare Minimization Plan and Operations Procedures to minimize the volume of 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.</i>		
(4.) (60.108a(c)(6)(xi))		
Necessity of RC/CAA: Determine and state whether a RC/CAA is necessary: <i>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.</i>		
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?	<u>No</u>	(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?	<u>No</u>	(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
11/25/2023 09:00	11/26/2023 08:00	36,687	10	1.9	0.0
11/25/2023 10:00	11/26/2023 09:00	83,390	5985	56.9	0.3
11/25/2023 11:00	11/26/2023 10:00	325,909	409	74.0	0.4
11/25/2023 12:00	11/26/2023 11:00	797,301	132	84.0	0.5
11/25/2023 13:00	11/26/2023 12:00	1,547,327	319	123.8	0.7
11/25/2023 14:00	11/26/2023 13:00	2,104,250	878	205.6	1.1
11/25/2023 15:00	11/26/2023 14:00	2,486,418	504	238.1	1.3
11/25/2023 16:00	11/26/2023 15:00	3,065,632	123	250.1	1.3
11/25/2023 17:00	11/26/2023 16:00	3,715,543	58	256.3	1.4
11/25/2023 18:00	11/26/2023 17:00	4,253,996	128	267.9	1.4
11/25/2023 19:00	11/26/2023 18:00	4,680,231	146	278.3	1.5
11/25/2023 20:00	11/26/2023 19:00	5,081,641	223	293.4	1.6
11/25/2023 21:00	11/26/2023 20:00	5,482,720	141	302.9	1.6
11/25/2023 22:00	11/26/2023 21:00	5,865,424	15	303.9	1.6
11/25/2023 23:00	11/26/2023 22:00	6,245,661	13	304.7	1.6
11/26/2023 00:00	11/26/2023 23:00	6,633,601	12	305.5	1.6
11/26/2023 01:00	11/27/2023 00:00	7,010,873	13	306.3	1.6
11/26/2023 02:00	11/27/2023 01:00	7,264,108	29	307.5	1.7
11/26/2023 03:00	11/27/2023 02:00	7,519,558	125	312.9	1.7
11/26/2023 04:00	11/27/2023 03:00	7,743,086	15	313.5	1.7
11/26/2023 05:00	11/27/2023 04:00	7,980,380	39	315.1	1.7
11/26/2023 06:00	11/27/2023 05:00	8,229,508	52	317.2	1.7
11/26/2023 07:00	11/27/2023 06:00	8,497,831	116	322.6	1.7
11/26/2023 08:00	11/27/2023 07:00	8,776,451	193	331.7	1.8
11/26/2023 09:00	11/27/2023 08:00	9,009,459	201	339.7	1.8
11/26/2023 10:00	11/27/2023 09:00	9,244,566	200	294.2	1.6
11/26/2023 11:00	11/27/2023 10:00	9,287,754	199	286.6	1.5
11/26/2023 12:00	11/27/2023 11:00	9,015,452	189	282.9	1.5
11/26/2023 13:00	11/27/2023 12:00	8,465,928	188	249.6	1.3
11/26/2023 14:00	11/27/2023 13:00	8,160,216	192	176.0	0.9
11/26/2023 15:00	11/27/2023 14:00	8,146,303	191	155.3	0.8
11/26/2023 16:00	11/27/2023 15:00	8,118,055	136	156.0	0.8
11/26/2023 17:00	11/27/2023 16:00	7,908,884	221	166.0	0.9
11/26/2023 18:00	11/27/2023 17:00	7,752,949	57	158.1	0.8
11/26/2023 19:00	11/27/2023 18:00	7,793,716	50	151.5	0.8
11/26/2023 20:00	11/27/2023 19:00	8,024,423	37	140.3	0.8
11/26/2023 21:00	11/27/2023 20:00	8,094,423	30	133.1	0.7
11/26/2023 22:00	11/27/2023 21:00	8,269,987	24	134.5	0.7
11/26/2023 23:00	11/27/2023 22:00	8,438,943	17	135.1	0.7
11/27/2023 00:00	11/27/2023 23:00	8,610,320	14	135.6	0.7
11/27/2023 01:00	11/28/2023 00:00	8,793,167	12	136.0	0.7
11/27/2023 02:00	11/28/2023 01:00	9,146,934	11	135.8	0.7
11/27/2023 03:00	11/28/2023 02:00	9,452,594	9	131.2	0.7
11/27/2023 04:00	11/28/2023 03:00	9,914,203	6	131.4	0.7
11/27/2023 05:00	11/28/2023 04:00	10,285,240	6	130.4	0.7
11/27/2023 06:00	11/28/2023 05:00	10,683,690	22	130.6	0.7
11/27/2023 07:00	11/28/2023 06:00	10,979,390	51	130.1	0.7
11/27/2023 08:00	11/28/2023 07:00	11,080,810	3	121.1	0.7
11/27/2023 09:00	11/28/2023 08:00	11,213,522	2	113.2	0.6
11/27/2023 10:00	11/28/2023 09:00	11,360,869	7	104.2	0.6

(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
11/27/2023 11:00	11/28/2023 10:00	11,484,845	181	107.0	0.6
11/27/2023 12:00	11/28/2023 11:00	11,640,841	52	103.0	0.6
11/27/2023 13:00	11/28/2023 12:00	11,792,701	39	98.8	0.5
11/27/2023 14:00	11/28/2023 13:00	11,916,955	32	92.6	0.5
11/27/2023 15:00	11/28/2023 14:00	11,961,270	28	82.6	0.4
11/27/2023 16:00	11/28/2023 15:00	11,821,504	2	70.2	0.4
11/27/2023 17:00	11/28/2023 16:00	11,786,250	1	54.0	0.3
11/27/2023 18:00	11/28/2023 17:00	11,833,490	1	50.3	0.3
11/27/2023 19:00	11/28/2023 18:00	11,811,003	1	46.5	0.2
11/27/2023 20:00	11/28/2023 19:00	11,603,000	1	42.7	0.2
11/27/2023 21:00	11/28/2023 20:00	11,480,458	1	40.4	0.2
11/27/2023 22:00	11/28/2023 21:00	11,189,898	2	38.2	0.2
11/27/2023 23:00	11/28/2023 22:00	11,047,812	274	55.4	0.3
11/28/2023 00:00	11/28/2023 23:00	10,943,566	73	59.7	0.3
11/28/2023 01:00	11/29/2023 00:00	10,930,703	31	61.5	0.3
11/28/2023 02:00	11/29/2023 01:00	10,983,182	16	62.0	0.3
11/28/2023 03:00	11/29/2023 02:00	11,151,127	11	62.5	0.3
11/28/2023 04:00	11/29/2023 03:00	11,107,317	13	63.2	0.3
11/28/2023 05:00	11/29/2023 04:00	11,029,711	19	64.3	0.3
11/28/2023 06:00	11/29/2023 05:00	10,969,608	30	64.8	0.3
11/28/2023 07:00	11/29/2023 06:00	10,956,925	19	61.7	0.3
11/28/2023 08:00	11/29/2023 07:00	10,941,743	15	62.5	0.3
11/28/2023 09:00	11/29/2023 08:00	10,948,611	10	63.0	0.3
11/28/2023 10:00	11/29/2023 09:00	10,878,626	12	63.2	0.3
11/28/2023 11:00	11/29/2023 10:00	10,810,419	8	50.9	0.3
11/28/2023 12:00	11/29/2023 11:00	10,852,232	34	50.0	0.3
11/28/2023 13:00	11/29/2023 12:00	10,948,342	15	48.9	0.3
11/28/2023 14:00	11/29/2023 13:00	10,997,867	72	52.0	0.3
11/28/2023 15:00	11/29/2023 14:00	10,955,603	59	53.8	0.3
11/28/2023 16:00	11/29/2023 15:00	10,852,870	14	54.3	0.3
11/28/2023 17:00	11/29/2023 16:00	10,517,892	15	54.5	0.3
11/28/2023 18:00	11/29/2023 17:00	10,090,569	10	54.4	0.3
11/28/2023 19:00	11/29/2023 18:00	9,646,090	7	54.4	0.3
11/28/2023 20:00	11/29/2023 19:00	9,222,014	5	54.3	0.3
11/28/2023 21:00	11/29/2023 20:00	8,873,516	4	54.2	0.3
11/28/2023 22:00	11/29/2023 21:00	8,605,848	5	54.2	0.3
11/28/2023 23:00	11/29/2023 22:00	8,198,798	4	35.4	0.2
11/29/2023 00:00	11/29/2023 23:00	7,743,763	3	29.8	0.2
11/29/2023 01:00	11/30/2023 00:00	7,196,527	4	27.0	0.1
11/29/2023 02:00	11/30/2023 01:00	6,537,090	4	25.3	0.1
11/29/2023 03:00	11/30/2023 02:00	5,808,066	4	24.0	0.1
11/29/2023 04:00	11/30/2023 03:00	5,166,806	3	22.6	0.1
11/29/2023 05:00	11/30/2023 04:00	4,636,133	4	20.9	0.1
11/29/2023 06:00	11/30/2023 05:00	4,048,692	4	17.9	0.1
11/29/2023 07:00	11/30/2023 06:00	3,497,393	5	16.2	0.1
11/29/2023 08:00	11/30/2023 07:00	3,132,596	5	15.3	0.1
11/29/2023 09:00	11/30/2023 08:00	2,760,035	6	14.7	0.1
11/29/2023 10:00	11/30/2023 09:00	2,400,874	6	14.0	0.1
11/29/2023 11:00	11/30/2023 10:00	2,050,016	7	13.5	0.1
11/29/2023 12:00	11/30/2023 11:00	1,625,992	6	11.0	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
11/29/2023 13:00	11/30/2023 12:00	1,177,517	8	9.9	0.1
11/29/2023 14:00	11/30/2023 13:00	752,512	9	4.8	0.0
11/29/2023 15:00	11/30/2023 14:00	382,213	10	1.1	0.0