



January 30, 2023

CERTIFIED: 7016 2710 0000 3305 5873

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

Gentlemen,

Valero Refining, Meraux LLC is submitting this Excess Emissions and Monitoring Systems Reports, per LAC 33:III, Chapter 30, 40 CFR 60.7(c), 40 CFR 60.108a(d) and 40 CFR 63.1575 for the Fourth Quarter 2022.

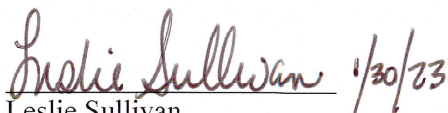
For this reporting period, no CEMS had excess emissions greater than 1% of the total operating time, and no CEMS had downtime greater than 5% of the total operating time.

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,


Leslie Sullivan
Vice President and General Manager
Meraux Refinery

Enclosures

cc: Mr. Jeff Leonick, LDEQ SE Regional Office, New Orleans, LA

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

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

Pollutant: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 9900(SO₂)/Servomex Oxy 1800(O₂) (10/1/22 – 10/27/22)

Ametek 9900(SO₂ and O₂) (10/27/22 – 12/31/22)

Date of Latest CMS Certification or Audit: CGA on 9/30/22

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

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: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 12/20/22

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	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	1
d. Other known causes	2
e. Unknown causes	0
2. Total CMS Downtime	3
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.1 %

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

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

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

(per 40 CFR 60.7(d))

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 11/15/22

Process Unit(s) Description: Area 1 Fuel Drum for Boiler TB-01 (EPN 1-06, EQT 0010); Boiler B-7 (EPN 1-07, EQT 0011); MDH Product and Fractionator Heaters (EPN 2-92, EQT 0033); DHT Charge Heater (EPN 5-73, EQT 0058)

Total source operating time in reporting period: EQT 0010-2,078 hours, EQT 0011-2,209 hours, EQT 0033-2,209 hours, EQT 0058-2,195 hours

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

CMS Performance Summary¹		
1. CMS downtime in reporting period due to:	<i>EQT 0010 (hours)</i>	<i>All Other EQT's (hours)</i>
a. Monitor equipment malfunctions	0	0
b. Non-Monitor equipment malfunctions	0	0
c. Quality assurance calibration	6	6
d. Other known causes	6	9
e. Unknown causes	0	0
2. Total CMS Downtime	12	15
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.6 %	0.7 %

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

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

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

(per 40 CFR 60.7(d))

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 11/17/22

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

Total source operating time in reporting period: EQT 0013-2,204 hours; EQT 0022-2,209 hours; EQT 0024-2,199 hours; EQT 0027-2,194 hours; EQT 0028-2,202 hours; EQT 0029-2,191 hours; EQT 0014-2,209 hours

Emissions Data Summary ¹	
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 Summary ¹	
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	1
d. Other known causes	2
e. Unknown causes	0
2. Total CMS Downtime	3
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.1 %

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

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

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

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

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 11/17/22

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

Total source operating time in reporting period: EQT 0127-2,179 hours; EQT 0159-2,201 hours

Emissions Data Summary ¹	
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 Summary ¹	
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	1
d. Other known causes	2
e. Unknown causes	0
2. Total CMS Downtime	3
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.1 %

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

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

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

(per 40 CFR 60.7(d))

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 11/17/22

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

Total source operating time in reporting period: 0 hours

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

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

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

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

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

(per 40 CFR 60.7(d))

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 11/15/22

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

Total source operating time in reporting period: 2,171 hours

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

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	(hours)
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	2
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: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 11/28/22

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

Total source operating time in reporting period: EQT 0030-2,206 hours; EQT 0048-0 hours³

Emissions Data Summary¹		
1. Duration of excess emissions in reporting period due to:	<i>EQT 0030 (hours)</i>	<i>EQT 0048 (hours)</i>
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		
1. CMS downtime in reporting period due to:	<i>EQT 0030 (hours)</i>	<i>EQT 0048 (hours)</i>
a. Monitor equipment malfunctions	0	0
b. Non-Monitor equipment malfunctions	0	0
c. Quality assurance calibration	0	0
d. Other known causes	5	0
e. Unknown causes	0	0
2. Total CMS Downtime	5	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: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 11/29/22

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

Total source operating time in reporting period: 2,206 hours

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

CMS Performance Summary ¹	
1. CMS downtime in reporting period due to:	(hours)
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	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))

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 11/30/22

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

Total source operating time in reporting period: 2,208 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	3
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))

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 11/23/22

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

Total source operating time in reporting period: 2,078 hours

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

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

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

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

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

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

Company: Valero Refining - Meraux LLC

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

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

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

Date of Latest CMS Certification or Audit: CGA on 11/10/22

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

Total source operating time in reporting period: 2,179 hours

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

CMS Performance Summary ¹	
1. CMS downtime in reporting period due to:	(hours)
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	57
d. Other known causes	1
e. Unknown causes	0
2. Total CMS Downtime	58
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	2.7 %

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

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

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

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 12/20/22

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

Total source operating time in reporting period: 2,193 hours

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

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

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

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

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

Pollutant: **NO_x**

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

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 11/22/22

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

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

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

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

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

Pollutant: **NO_x**

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

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 12/20/22

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

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

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

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

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

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 11/16/22

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

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

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

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

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

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

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 11/16/22

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	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	26
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	26
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	1.2 %

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

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

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

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

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 11/16/22

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	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: **Total Sulfur**

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

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 11/9/22

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

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

CMS Performance Summary ¹	
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	5
d. Other known causes	28
e. Unknown causes	0
2. Total CMS Downtime	33
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	1.5 %

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: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 11/9/22

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 Summary ¹	
1. CMS downtime in reporting period due to:	(hours)
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	3
d. Other known causes	62
e. Unknown causes	0
2. Total CMS Downtime	65
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	2.9 %

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

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

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

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 11/9/22

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	4
d. Other known causes	8
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: **Flow**

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

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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

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

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

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

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

Pollutant: **Flow**

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

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 Summary ¹	
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))

On 7/26/21, the computer processor for SO₂ CEMS on the #2 SRU Incinerator (EPN 1-93, EQT 0019) failed and could not be repaired. Valero installed a temporary rental SO₂ analyzer on 7/27/21. The original O₂ analyzer was retained. This rental SO₂ analyzer was in operation until October 27, 2022 at 09:00. Valero installed new SO₂ and O₂ analyzers, which began operation prior to shutting down the rental SO₂ analyzer.

For all other CMS covered in this report, no changes were made in the 4th Quarter 2022 to CMS, process, or controls.

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

 Dan Patroul
Name

 D. Patroul 1/28/23
Signature

 Sr. Environmental Engineer
Title

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

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

Pollutant: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 9900(SO₂)/Servomex Oxy 1800(O₂) (10/1/22 – 10/27/22)
Ametek 9900(SO₂ and O₂) (10/27/22 – 12/31/22)

Date of Latest CMS Certification or Audit: CGA on 9/30/22

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

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
12/28/22	14:00	15:00	1	Calibration adjustment.	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: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 12/20/22

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 PERFORMANCE¹					
Date	Start	End	Duration (hours)	Cause	Corrective Action
11/8/22	09:00	11:00	2	Annual preventative maintenance performed by manufacturer representative.	Calibrated and returned to service.
11/8/22	13:00	14:00	1	Calibration check and adjustment following preventative maintenance.	Calibrated and returned to service.
TOTAL			3		

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

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

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

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 11/17/22

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

Total source operating time in reporting period: EQT 0127-2,179 hours; EQT 0159-2,201 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
11/8/22	08:00	10:00	2	Annual preventative maintenance performed by manufacturer representative.	Calibrated and returned to service.
11/17/22	09:00	10:00	1	Cylinder Gas Audit.	N/A
TOTAL			3		

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

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

Company: Valero Refining - Meraux LLC

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

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

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

Date of Latest CMS Certification or Audit: CGA on 11/10/22

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

Total source operating time in reporting period: 2,179 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
10/5/22	13:00		21	NOx analyzer out of control due to daily calibration check span value greater than 4 times Appendix B limit below the calibration gas standard.	Valero recalibrated the analyzer and returned it to service.
10/6/22		10:00			
10/6/22	14:00	15:00	1	Replaced sample cooler.	Valero calibrated the analyzer and returned it to service.
11/5/22	09:00		35	NOx analyzer out of control due to daily calibration check span value greater than 4 times Appendix B limit above the calibration gas standard.	Valero performed a manual calibration check and the analyzer performed within specification. The cause of the failure could not be determined, but Valero checked and adjusted the calibration gas pressure and flow and the issue seems to have abated.
11/6/22		20:00			
11/10/22	09:00	10:00	1	NOx and O ₂ Cylinder Gas Audit.	N/A
TOTAL			58		

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

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

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 12/20/22

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

Total source operating time in reporting period: 2,193 hours

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

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

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

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

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

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 11/16/22

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

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

¹Due to the physical arrangement of the headers supplying the North Flare Stack (EPN 20-72, EQT 0035), two analyzers are required to measure H₂S concentration of the gas combusted in the North Flare. Conservatively, excess emission on either of these analyzers will be considered excess emissions at the North Flare. However, the CEMS performance will be tracked separately.

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

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

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

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 11/16/22

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

Ja CMS PERFORMANCE ²					
Date	Start	End	Duration (hours)	Cause	Corrective Action
12/24/22	16:00		26	Analyzer Primary Control Board failed taking the analyzer offline.	Valero replaced the Primary Control Board, calibrated the analyzer, and returned it to service.
12/25/22		18:00			
TOTAL			26		

¹Due to the physical arrangement of the headers supplying the North Flare Stack (EPN 20-72, EQT 0035), two analyzers are required to measure H₂S concentration of the gas combusted in the North Flare. Conservatively, excess emission on either of these analyzers will be considered excess emissions at the North Flare. However, the CEMS performance will be tracked separately.

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

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

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

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 11/16/22

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

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

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

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

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

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

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 11/9/22

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

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

Ja CMS PERFORMANCE²					
Date	Start	End	Duration (hours)	Cause	Corrective Action
10/4/22	09:00	14:00	5	Lost sample flow.	Blew out and cleared sample lines and reset flow to analyzer. Calibrated and returned to service.
10/10/22	06:00	10:00	4	Analyzer shutdown to rebuild sample pump.	Calibrated and returned to service.
10/21/22	09:00	10:00	1	Adjustment for calibration drift.	Calibrated and returned to service.
11/8/22	09:00	10:00	1	Adjustment for calibration drift.	Calibrated and returned to service.
11/14/22	09:00	11:00	2	Analyzer offline to troubleshoot improper operation when shifting to the high range during daily calibration checks.	Valero adjusted the analyzer, calibrated it, and returned to service.
11/28/22	08:00	16:00	8	Analyzer shutdown to replace injection valve rotor.	Calibrated and returned to service.
11/29/22	11:00	12:00	1	Re-calibrated on high range to ensure proper range change function.	N/A
12/1/22	08:00	12:00	4	Analyzer offline to troubleshoot improper operation when shifting to the high range during daily calibration checks.	Valero adjusted the analyzer, calibrated it, and returned to service.
12/8/22	14:00	21:00	7	Offline for sample line clearing and adjustments to improve sample flow.	Calibrated and returned to service.
TOTAL			33		

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

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 11/9/22

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 PERFORMANCE²					
Date	Start	End	Duration (hours)	Cause	Corrective Action
10/10/22	06:00	10:00	4	Analyzer shutdown to rebuild sample pump.	Calibrated and returned to service.
10/21/22	09:00	10:00	1	Adjustment for calibration drift.	Calibrated and returned to service.
11/8/22	09:00	10:00	1	Adjustment for calibration drift.	Calibrated and returned to service.
11/14/22	09:00	14:00	5	Analyzer offline to troubleshoot improper operation when shifting to the high range during daily calibration checks.	Calibrated and returned to service.
11/22/22	10:00	11:00	1	Adjustment for calibration drift.	Calibrated and returned to service.
11/29/22	08:00	11:00	3	Analyzer shutdown to replace injection valve rotor.	Calibrated and returned to service.
12/4/22	09:00		25	Lost sample flow.	Valero blew out and cleared sample lines, rebuilt sample pump, and reset flow to analyzer. Calibrated and returned to service.
12/5/22		10:00			
12/8/22	14:00	16:00	2	Offline for sample line clearing and adjustments to improve sample flow.	Calibrated and returned to service.
12/21/22	15:00		23	Lost sample flow.	Valero blew out and cleared sample lines and reset flow to analyzer. Calibrated and returned to service.
12/22/22		14:00			
TOTAL			65		

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

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

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 11/9/22

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
10/10/22	06:00	10:00	4	Analyzer shutdown to rebuild sample pump.	Calibrated and returned to service.
10/21/22	09:00	10:00	1	Adjustment for calibration drift.	Calibrated and returned to service.
11/8/22	09:00	10:00	1	Adjustment for calibration drift.	Calibrated and returned to service.
11/22/22	10:00	11:00	1	Adjustment for calibration drift.	Calibrated and returned to service.
11/28/22	13:00	17:00	4	Analyzer shutdown to replace injection valve rotor.	Calibrated and returned to service.
11/29/22	09:00	10:00	1	Adjustment for calibration drift.	Calibrated and returned to service.
TOTAL			12		

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

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

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

Pollutant: **Flow**

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

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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		

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

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

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

Pollutant: **Flow**

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

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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		

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

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

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

Pollutant: **Flow**

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

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 9900(SO₂)/Servomex Oxy 1800(O₂) (10/1/22 – 10/27/22)

Ametek 9900(SO₂ and O₂) (10/27/22 – 12/31/22)

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

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

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

I. ACCURACY ASSESSMENT RESULTS:

New SO₂/O₂ CEMS was installed and began operation in October. The rental CEMS was shut down on 10/27/22 at 09:00. The initial certification RATA was performed on the new SO₂/O₂ CEMS on 1/17/23 and the results will be submitted in the next quarterly report.

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

Company: Valero Refining - Meraux LLC

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

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

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

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

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

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	SO ₂ #1 (low scale)	SO ₂ #2 (high scale)	O ₂ #1 (low scale)	O ₂ #2 (high scale)
Date of Audit	12/20/22	12/20/22	12/20/22	12/20/22
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	133.5 ppmv	292.1 ppmv	5.42 vol %	9.81 vol %
Accuracy	6.5%	6.1%	9.5%	1.7%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

Source Unit: Area 1 Fuel Drum for Boiler TB-01 (EPN 1-06, EQT 0010); Boiler B-7 (EPN 1-07, EQT 0011); MDH Product and Fractionator Heaters (EPN 2-92, EQT 0033); DHT Charge Heater (EPN 5-73, EQT 0058)

CEM Sampling Location: Area 1 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	11/15/22	11/15/22
Audit Gas Cylinder No.	LL158284	EY0001806
Date of Audit Gas Cert.	11/18/22	9/2/22
Type of Certification	EPA Protocol 1	EPA Protocol 1
Certified Audit Value (ppmv)	75.0	167.8
CEM Response Value (ppmv)	73.7	168.7
Accuracy	1.7%	0.5%
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: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

Source Unit: Area 2 Fuel Drum for: No.1 Crude Heater (EPN 12-72A, EQT 022); ROSE Heater (EPN 1-80, EQT 0014); Vacuum Heater (EPN 1-76, EQT 0013); Platformer Charge Heater (EPN 17-72 a,b,c , EQT 0028); Platformer Debut Reboiler (EPN 19-72, EQT 0029); NHT Charge Heater (EPN 14-72, EQT 0023); NHT Debut Reboiler (EPA 15-72, EQT 0024); NHT Depent Reboiler (EPA 16-72, EQT 0027); Benzene Recovery Unit Reboiler (EPN 1-09, EQT 0127); NHT Charge Heater (EPN 1-17, EQT 0159)

CEM Sampling Location: Area 2 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 (low scale)	H ₂ S #2 (high scale)
Date of Audit	11/17/22	11/17/22
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)	69.0	163.7
Accuracy	7.4%	1.0%
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: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

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

CEM Sampling Location: Area 4 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	11/17/22	11/17/22
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)	74.3	173.7
Accuracy	0.3%	5.0%
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: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

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

CEM Sampling Location: Area 6 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	11/15/22	11/15/22
Audit Gas Cylinder No.	LL158284	EY0001806
Date of Audit Gas Cert.	11/18/22	9/2/22
Type of Certification	EPA Protocol 1	EPA Protocol 1
Certified Audit Value (ppmv)	75.0	167.8
CEM Response Value (ppmv)	75.7	167.0
Accuracy	1.0%	0.5%
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: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

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

CEM Sampling Location: Area 6 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	11/28/22	11/28/22
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)	77.0	174.0
Accuracy	3.2%	0.8%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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	11/29/22	11/29/22	11/29/22	11/29/22
Audit Gas Cylinder No.	LL23428	LL64747	CC483685	BLM004951
Date of Audit Gas Cert.	3/21/22	5/3/16	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	54.5 ppmv	6.00 vol %	10.04 vol %
CEM Response Value	23.5 ppmv	52.1 ppmv	5.79 vol %	9.95 vol %
Accuracy	6.0%	4.4%	3.5%	0.9%
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: Db

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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	11/29/22	11/29/22	11/29/22	11/29/22
Audit Gas Cylinder No.	LL23428	LL64747	CC483685	BLM004951
Date of Audit Gas Cert.	3/21/22	5/3/16	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	54.5 ppmv	6.00 vol %	10.04 vol %
CEM Response Value	25.0 ppmv	53.8 ppmv	6.11 vol %	10.11 vol %
Accuracy	0.0%	1.3%	1.8%	0.7%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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	11/23/22	11/23/22	11/23/22	11/23/22
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	127.6 ppmv	271.7 ppmv	5.50 vol %	9.40 vol %
Accuracy	0.6%	0.4%	8.8%	6.9%
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: Ja

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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 (CGA):

	NO _x #1 (low scale)	NO _x #2 (high scale)	O ₂ #1 (low scale)	O ₂ #2 (high scale)
Date of Audit	11/10/22	11/10/22	11/10/22	11/10/22
Audit Gas Cylinder No.	LL111161	CC307733	CC483658	CC87078
Date of Audit Gas Cert.	3/21/22	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	24.7 ppmv	55.8 ppmv	5.96 vol %	9.94 vol %
CEM Response Value	25.9 ppmv	58.9 ppmv	5.42 vol %	9.40 vol %
Accuracy	4.9%	5.6%	9.1%	5.4%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: 10/5/22 – 10/6/22
11/5/22 – 11/6/22

2. Number of Days 2.3 (56 hours)

B. Corrective Actions: For corrective actions see Gaseous and Opacity Excess Emissions and Monitoring Systems Performance sheet for the Benzene Recovery Unit Reboiler found on page 29 of this report.

DATA ASSESSMENT REPORT

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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</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	12/20/22	12/20/22	12/20/22	12/20/22
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	22.6 ppmv	50.9 ppmv	6.00 vol %	10.00 vol %
Accuracy	11.9%	8.3%	0.0%	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: **NO_x**

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

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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</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	11/22/22	11/22/22	11/22/22	11/22/22
Audit Gas Cylinder No.	LL67375	CC319153	CC483638	CC222165
Date of Audit Gas Cert.	10/4/19	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	25.2 ppmv	55.4 ppmv	5.99 vol %	9.96 vol %
CEM Response Value	26.7 ppmv	58.9 ppmv	6.00 vol %	10.00 vol %
Accuracy	6.0%	6.2%	0.1%	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: **NO_x**

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

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

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</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	12/20/22	12/20/22	12/20/22	12/20/22
Audit Gas Cylinder No.	BLM000328	LL64381	LL100497	LL67009
Date of Audit Gas Cert.	10/4/19	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	25.2 ppmv	55.2 ppmv	6.02 vol %	10.03 vol %
CEM Response Value	25.7 ppmv	53.0 ppmv	6.01 vol %	9.95 vol %
Accuracy	2.0%	4.0%	0.1%	0.8%
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: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

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

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

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 (low scale)	H ₂ S #2 (high scale)
Date of Audit	11/16/22	11/16/22
Audit Gas Cylinder No.	CC416499	XC012872B
Date of Audit Gas Cert.	12/10/19	12/16/19
Type of Certification	Certified Gas ¹	Certified Gas ¹
Certified Audit Value	79.5 ppmv	172.7 ppmv
CEM Response Value	76.3 ppmv	178.0 ppmv
Accuracy	4.0%	3.1%
Standard	<15%	<15%

¹ Valero unable to obtain EPA Protocol 1 certified gases for the Methane balanced audit gas required by this analyzer.

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

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

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

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 (low scale)	H ₂ S #2 (high scale)
Date of Audit	11/16/22	11/16/22
Audit Gas Cylinder No.	CC416499	XC012872B
Date of Audit Gas Cert.	12/10/19	12/16/19
Type of Certification	Certified Gas ¹	Certified Gas ¹
Certified Audit Value	79.5 ppmv	172.7 ppmv
CEM Response Value	73.3 ppmv	177.7 ppmv
Accuracy	7.8%	2.9%
Standard	<15%	<15%

¹ Valero unable to obtain EPA Protocol 1 certified gases for the Methane balanced audit gas required by this analyzer.

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

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

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

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	11/16/22	11/16/22
Audit Gas Cylinder No.	CC416499	XC012872B
Date of Audit Gas Cert.	12/10/19	12/16/19
Type of Certification	Certified Gas ¹	Certified Gas ¹
Certified Audit Value	79.5 ppmv	172.7 ppmv
CEM Response Value	76.0 ppmv	176.3 ppmv
Accuracy	4.4%	2.1%
Standard	<15%	<15%

¹ Valero unable to obtain EPA Protocol 1 certified gases for the Methane balanced audit gas required by this analyzer.

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

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

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

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	11/9/22	11/9/22
Audit Gas Cylinder No.	CC431101	SG9133262BAL
Date of Audit Gas Cert.	4/29/20	11/5/20
Type of Certification	EPA Protocol 1	Certified Gas ¹
Certified Audit Value (ppmv)	1030.0 ppmv	5559.0 ppmv
CEM Response Value (ppmv)	1000.4 ppmv	5691.3 ppmv
Accuracy	2.9%	2.4%
Standard	<15%	<15%

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

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

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

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

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 (low scale)	H ₂ S #2 (high scale)
Date of Audit	11/9/22	11/9/22
Audit Gas Cylinder No.	CC431101	SG9133262BAL
Date of Audit Gas Cert.	4/29/20	11/5/20
Type of Certification	EPA Protocol 1	Certified Gas ¹
Certified Audit Value (ppmv)	1030.0 ppmv	5559.0 ppmv
CEM Response Value (ppmv)	959.2 ppmv	5640.8 ppmv
Accuracy	6.9%	1.5%
Standard	<15%	<15%

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

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 10/1/22 to 12/31/22

Date submitted: 1/30/23

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

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

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

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	11/9/22	11/9/22
Audit Gas Cylinder No.	CC431101	SG9133262BAL
Date of Audit Gas Cert.	4/29/20	11/5/20
Type of Certification	EPA Protocol 1	Certified Gas ¹
Certified Audit Value	1030.0 ppmv	5559.0 ppmv
CEM Response Value	1024.6 ppmv	5835.1 ppmv
Accuracy	0.5%	5.0%
Standard	<15%	<15%

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

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

Appendix A

Ja Root Cause and Corrective Action Analysis

Subpart Ja Root Cause / Corrective Action AnalysisIncident Number: **454383***The information contained below satisfies the requirements of the NSPS Subpart Ja 60.108a(c)(6).*

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

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

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

A description of the Discharge:

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

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

Date and Time the discharge was first identified 2/20/22 3:30
Date/Time the discharge had ceased 2/26/22 18:20
Duration of Discharge (Calculated) 158.8 hrs.

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

The steps taken to limit the emissions during the discharge:

Valero followed its Flare Minimization Plan and Operations Procedures to minimize the volume flared from this discharge. During periods of Nitrogen venting, additional supplemental natural gas was required to comply with the Net Heating Value of the Combustion Zone limit (> 270 Btu/scf) of 40 CFR 63.670, that became effective on January 30, 2019.

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

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

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

Did the discharge result from a planned startup or shutdown?	<u>No</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>No</u>	(Yes/No)

- If yes, skip section 5-7.

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

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

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

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

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

Corrective Action Analysis: Include a description of the recommended corrective action(s) or an explanation of why corrective action is not
Is corrective action required? Yes (Yes/No)

1) Modify preventative maintenance/long range planning to include a more detailed inspection of the steam turbine and include replacement of the steam turbine every 4-6 years.

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

3) Design an upgrade for the governor controller system.

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

(7.)

(60.108a(c)(6)(x))

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

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

Commencement Date: 3/25/22

Completed Date: 7/7/22

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

Completed Date: 3/29/22

3) *Design an upgrade for the governor controller system.*

Commencement Date: 3/25/22

Completed Date: 11/1/22 (Added new corrective action to install.)

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

Commencement Date: 3/25/22

Completed Date: 8/3/22

5) *Install the upgrade for the governor controller system.*

Commencement Date: 12/6/22

Estimated Completion Date: 9/24/24

(8.) The measured or calculated cumulative quantity of gas discharged over the discharge duration. <i>Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.</i>					
		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	Last hour of 24-hr Period	24-hr cumulative volume of flared gas above Baseline	TRS or H2S ppm (24-hr average, flow-weighted)	24-hr cumulative SO2	24-hr cumulative reduced sulfur
		SCF	ppmv	lbs	lbs as H2S
2/19/22 3:00	2/20/22 2:00	107,313	3	0.2	0.0
2/19/22 4:00	2/20/22 3:00	1,743,030	295	80.2	0.4
2/19/22 5:00	2/20/22 4:00	2,594,156	286	120.7	0.6
2/19/22 6:00	2/20/22 5:00	3,179,253	1593	276.6	1.5
2/19/22 7:00	2/20/22 6:00	3,768,660	3938	664.8	3.6
2/19/22 8:00	2/20/22 7:00	4,175,400	2845	859.6	4.6
2/19/22 9:00	2/20/22 8:00	4,510,202	2533	1003.1	5.4
2/19/22 10:00	2/20/22 9:00	4,787,404	2752	1132.8	6.1
2/19/22 11:00	2/20/22 10:00	5,038,748	2179	1226.3	6.6
2/19/22 12:00	2/20/22 11:00	5,254,338	2018	1301.0	7.0
2/19/22 13:00	2/20/22 12:00	5,505,216	1485	1364.6	7.3
2/19/22 14:00	2/20/22 13:00	5,666,134	680	1383.6	7.4
2/19/22 15:00	2/20/22 14:00	5,741,861	215	1386.6	7.5
2/19/22 16:00	2/20/22 15:00	5,816,453	217	1389.6	7.5
2/19/22 17:00	2/20/22 16:00	5,915,749	101	1391.4	7.5
2/19/22 18:00	2/20/22 17:00	5,918,058	75	1391.5	7.5
2/19/22 19:00	2/20/22 18:00	5,956,142	1289	1401.5	7.5
2/19/22 20:00	2/20/22 19:00	5,984,171	287	1403.3	7.5
2/19/22 21:00	2/20/22 20:00	5,984,157	62	1403.3	7.5
2/19/22 22:00	2/20/22 21:00	5,993,695	1959	1409.4	7.6
2/19/22 23:00	2/20/22 22:00	6,038,935	2995	1436.2	7.7
2/20/22 0:00	2/20/22 23:00	6,254,053	719	1462.7	7.9
2/20/22 1:00	2/21/22 0:00	6,484,147	468	1481.1	8.0
2/20/22 2:00	2/21/22 1:00	6,718,618	395	1497.0	8.0
2/20/22 3:00	2/21/22 2:00	6,951,058	339	1510.5	8.1
2/20/22 4:00	2/21/22 3:00	5,549,933	311	1443.0	7.8
2/20/22 5:00	2/21/22 4:00	4,934,682	299	1414.5	7.6
2/20/22 6:00	2/21/22 5:00	4,584,335	296	1270.5	6.8
2/20/22 7:00	2/21/22 6:00	4,231,036	293	894.1	4.8
2/20/22 8:00	2/21/22 7:00	4,062,275	292	711.2	3.8
2/20/22 9:00	2/21/22 8:00	3,965,926	292	579.6	3.1
2/20/22 10:00	2/21/22 9:00	3,928,746	292	461.9	2.5
2/20/22 11:00	2/21/22 10:00	3,912,564	292	380.1	2.0
2/20/22 12:00	2/21/22 11:00	3,843,571	286	312.8	1.7
2/20/22 13:00	2/21/22 12:00	3,593,834	81	249.3	1.3
2/20/22 14:00	2/21/22 13:00	3,580,548	572	245.1	1.3
2/20/22 15:00	2/21/22 14:00	3,609,287	1022	261.2	1.4
2/20/22 16:00	2/21/22 15:00	3,633,055	1136	278.3	1.5
2/20/22 17:00	2/21/22 16:00	3,716,535	600	295.4	1.6
2/20/22 18:00	2/21/22 17:00	3,917,538	475	311.9	1.7
2/20/22 19:00	2/21/22 18:00	4,129,287	379	318.0	1.7
2/20/22 20:00	2/21/22 19:00	4,334,637	379	331.4	1.8
2/20/22 21:00	2/21/22 20:00	4,582,614	339	345.6	1.9
2/20/22 22:00	2/21/22 21:00	4,854,829	288	353.4	1.9
2/20/22 23:00	2/21/22 22:00	5,147,839	231	339.8	1.8
2/21/22 0:00	2/21/22 23:00	5,319,630	202	326.5	1.8
2/21/22 1:00	2/22/22 0:00	5,491,572	179	320.2	1.7
2/21/22 2:00	2/22/22 1:00	5,656,592	183	316.6	1.7
2/21/22 3:00	2/22/22 2:00	5,834,023	171	314.9	1.7

(8.) The measured or calculated cumulative quantity of gas discharged over the discharge duration. <i>Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.</i>					
		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	Last hour of 24-hr Period	24-hr cumulative volume of flared gas above Baseline	TRS or H2S ppm (24-hr average, flow-weighted)	24-hr cumulative SO2	24-hr cumulative reduced sulfur
		SCF	ppmv	lbs	lbs as H2S
2/21/22 4:00	2/22/22 3:00	5,966,835	178	313.5	1.7
2/21/22 5:00	2/22/22 4:00	6,101,444	167	311.8	1.7
2/21/22 6:00	2/22/22 5:00	6,224,996	177	310.6	1.7
2/21/22 7:00	2/22/22 6:00	6,344,088	186	310.0	1.7
2/21/22 8:00	2/22/22 7:00	6,464,260	170	308.4	1.7
2/21/22 9:00	2/22/22 8:00	6,597,205	148	305.7	1.6
2/21/22 10:00	2/22/22 9:00	6,810,808	159	305.8	1.6
2/21/22 11:00	2/22/22 10:00	7,079,289	173	308.7	1.7
2/21/22 12:00	2/22/22 11:00	7,395,888	171	314.6	1.7
2/21/22 13:00	2/22/22 12:00	7,748,183	183	325.4	1.7
2/21/22 14:00	2/22/22 13:00	7,927,273	186	320.9	1.7
2/21/22 15:00	2/22/22 14:00	8,032,459	251	310.8	1.7
2/21/22 16:00	2/22/22 15:00	8,102,852	290	299.2	1.6
2/21/22 17:00	2/22/22 16:00	8,093,848	288	288.9	1.6
2/21/22 18:00	2/22/22 17:00	8,079,286	258	280.7	1.5
2/21/22 19:00	2/22/22 18:00	8,036,458	224	272.5	1.5
2/21/22 20:00	2/22/22 19:00	8,034,177	186	264.7	1.4
2/21/22 21:00	2/22/22 20:00	8,031,638	161	257.2	1.4
2/21/22 22:00	2/22/22 21:00	8,003,482	147	249.7	1.3
2/21/22 23:00	2/22/22 22:00	7,923,230	139	242.6	1.3
2/22/22 0:00	2/22/22 23:00	7,795,790	136	235.4	1.3
2/22/22 1:00	2/23/22 0:00	7,654,311	134	229.2	1.2
2/22/22 2:00	2/23/22 1:00	7,518,492	131	222.9	1.2
2/22/22 3:00	2/23/22 2:00	7,374,477	129	216.9	1.2
2/22/22 4:00	2/23/22 3:00	7,271,578	126	211.6	1.1
2/22/22 5:00	2/23/22 4:00	7,169,331	126	206.9	1.1
2/22/22 6:00	2/23/22 5:00	7,079,656	133	202.3	1.1
2/22/22 7:00	2/23/22 6:00	6,986,413	129	196.9	1.1
2/22/22 8:00	2/23/22 7:00	6,899,622	123	192.3	1.0
2/22/22 9:00	2/23/22 8:00	6,832,263	106	188.5	1.0
2/22/22 10:00	2/23/22 9:00	6,687,224	105	181.9	1.0
2/22/22 11:00	2/23/22 10:00	6,497,768	97	172.4	0.9
2/22/22 12:00	2/23/22 11:00	6,354,803	88	163.9	0.9
2/22/22 13:00	2/23/22 12:00	6,327,445	85	157.7	0.8
2/22/22 14:00	2/23/22 13:00	6,327,654	87	152.2	0.8
2/22/22 15:00	2/23/22 14:00	6,444,994	91	148.3	0.8
2/22/22 16:00	2/23/22 15:00	6,602,925	97	145.1	0.8
2/22/22 17:00	2/23/22 16:00	6,755,833	97	141.8	0.8
2/22/22 18:00	2/23/22 17:00	6,893,898	95	138.6	0.7
2/22/22 19:00	2/23/22 18:00	7,013,500	94	135.9	0.7
2/22/22 20:00	2/23/22 19:00	7,109,496	90	133.5	0.7
2/22/22 21:00	2/23/22 20:00	7,190,989	81	131.3	0.7
2/22/22 22:00	2/23/22 21:00	7,263,800	76	129.1	0.7
2/22/22 23:00	2/23/22 22:00	7,332,642	78	127.3	0.7
2/23/22 0:00	2/23/22 23:00	7,400,255	81	125.8	0.7
2/23/22 1:00	2/24/22 0:00	7,465,915	83	124.5	0.7
2/23/22 2:00	2/24/22 1:00	7,528,205	86	123.3	0.7
2/23/22 3:00	2/24/22 2:00	7,588,374	85	122.1	0.7
2/23/22 4:00	2/24/22 3:00	7,650,017	86	121.2	0.7

(8.) The measured or calculated cumulative quantity of gas discharged over the discharge duration. <i>Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.</i>					
		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	Last hour of 24-hr Period	24-hr cumulative volume of flared gas above Baseline	TRS or H2S ppm (24-hr average, flow-weighted)	24-hr cumulative SO2	24-hr cumulative reduced sulfur
		SCF	ppmv	lbs	lbs as H2S
2/23/22 5:00	2/24/22 4:00	7,707,732	86	120.2	0.6
2/23/22 6:00	2/24/22 5:00	7,765,280	91	119.1	0.6
2/23/22 7:00	2/24/22 6:00	7,829,862	90	118.3	0.6
2/23/22 8:00	2/24/22 7:00	7,885,689	85	117.3	0.6
2/23/22 9:00	2/24/22 8:00	7,912,781	97	117.3	0.6
2/23/22 10:00	2/24/22 9:00	7,909,812	159	120.0	0.6
2/23/22 11:00	2/24/22 10:00	7,596,556	22	114.9	0.6
2/23/22 12:00	2/24/22 11:00	7,276,300	20	110.2	0.6
2/23/22 13:00	2/24/22 12:00	6,950,203	19	105.5	0.6
2/23/22 14:00	2/24/22 13:00	6,788,195	624	118.6	0.6
2/23/22 15:00	2/24/22 14:00	6,658,451	282	123.1	0.7
2/23/22 16:00	2/24/22 15:00	6,528,235	227	125.4	0.7
2/23/22 17:00	2/24/22 16:00	6,651,603	151	131.5	0.7
2/23/22 18:00	2/24/22 17:00	6,812,427	152	138.7	0.7
2/23/22 19:00	2/24/22 18:00	6,973,977	121	143.4	0.8
2/23/22 20:00	2/24/22 19:00	7,138,950	117	148.1	0.8
2/23/22 21:00	2/24/22 20:00	7,301,805	297	168.0	0.9
2/23/22 22:00	2/24/22 21:00	7,449,893	427	197.8	1.1
2/23/22 23:00	2/24/22 22:00	7,593,506	452	229.2	1.2
2/24/22 0:00	2/24/22 23:00	7,722,397	406	255.8	1.4
2/24/22 1:00	2/25/22 0:00	7,880,846	443	287.2	1.5
2/24/22 2:00	2/25/22 1:00	8,031,549	434	317.2	1.7
2/24/22 3:00	2/25/22 2:00	8,181,105	419	346.0	1.9
2/24/22 4:00	2/25/22 3:00	8,324,526	402	372.9	2.0
2/24/22 5:00	2/25/22 4:00	8,456,405	412	399.8	2.1
2/24/22 6:00	2/25/22 5:00	8,458,502	483	421.6	2.3
2/24/22 7:00	2/25/22 6:00	8,485,150	337	436.7	2.3
2/24/22 8:00	2/25/22 7:00	8,592,719	375	459.5	2.5
2/24/22 9:00	2/25/22 8:00	8,674,234	368	479.6	2.6
2/24/22 10:00	2/25/22 9:00	8,774,548	354	495.6	2.7
2/24/22 11:00	2/25/22 10:00	9,198,782	336	519.5	2.8
2/24/22 12:00	2/25/22 11:00	9,636,614	316	542.8	2.9
2/24/22 13:00	2/25/22 12:00	10,024,149	347	565.4	3.0
2/24/22 14:00	2/25/22 13:00	10,336,239	367	576.9	3.1
2/24/22 15:00	2/25/22 14:00	10,551,044	304	588.4	3.2
2/24/22 16:00	2/25/22 15:00	10,718,706	226	594.6	3.2
2/24/22 17:00	2/25/22 16:00	10,646,608	191	595.3	3.2
2/24/22 18:00	2/25/22 17:00	10,558,924	194	595.9	3.2
2/24/22 19:00	2/25/22 18:00	10,524,116	216	602.4	3.2
2/24/22 20:00	2/25/22 19:00	10,485,025	189	607.2	3.3
2/24/22 21:00	2/25/22 20:00	10,461,002	149	594.4	3.2
2/24/22 22:00	2/25/22 21:00	10,443,513	119	569.5	3.1
2/24/22 23:00	2/25/22 22:00	10,424,347	95	541.0	2.9
2/25/22 0:00	2/25/22 23:00	10,424,579	80	516.0	2.8
2/25/22 1:00	2/26/22 0:00	10,395,164	69	485.3	2.6
2/25/22 2:00	2/26/22 1:00	10,377,942	61	455.3	2.4
2/25/22 3:00	2/26/22 2:00	10,356,163	54	426.0	2.3
2/25/22 4:00	2/26/22 3:00	10,365,463	48	398.2	2.1
2/25/22 5:00	2/26/22 4:00	10,380,951	41	369.8	2.0

(8.)					
The measured or calculated cumulative quantity of gas discharged over the discharge duration.					
<i>Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.</i>					
		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	Last hour of 24-hr Period	24-hr cumulative volume of flared gas above Baseline	TRS or H2S ppm (24-hr average, flow-weighted)	24-hr cumulative SO2	24-hr cumulative reduced sulfur
		SCF	ppmv	lbs	lbs as H2S
2/25/22 6:00	2/26/22 5:00	10,499,448	47	346.4	1.9
2/25/22 7:00	2/26/22 6:00	10,604,413	28	328.5	1.8
2/25/22 8:00	2/26/22 7:00	10,634,733	13	302.1	1.6
2/25/22 9:00	2/26/22 8:00	10,641,700	11	277.3	1.5
2/25/22 10:00	2/26/22 9:00	10,662,574	12	254.0	1.4
2/25/22 11:00	2/26/22 10:00	10,674,435	15	231.1	1.2
2/25/22 12:00	2/26/22 11:00	10,661,970	20	209.3	1.1
2/25/22 13:00	2/26/22 12:00	10,668,809	44	189.5	1.0
2/25/22 14:00	2/26/22 13:00	10,521,186	99	165.7	0.9
2/25/22 15:00	2/26/22 14:00	10,482,815	118	152.0	0.8
2/25/22 16:00	2/26/22 15:00	10,512,116	124	146.3	0.8
2/25/22 17:00	2/26/22 16:00	10,464,500	192	144.9	0.8
2/25/22 18:00	2/26/22 17:00	10,173,188	466	140.9	0.8
2/25/22 19:00	2/26/22 18:00	9,734,305	392	126.0	0.7
2/25/22 20:00	2/26/22 19:00	9,281,280	29	111.7	0.6
2/25/22 21:00	2/26/22 20:00	8,815,531	22	100.0	0.5
2/25/22 22:00	2/26/22 21:00	8,358,485	19	90.9	0.5
2/25/22 23:00	2/26/22 22:00	7,907,201	17	83.7	0.4
2/26/22 0:00	2/26/22 23:00	7,450,936	19	77.6	0.4
2/26/22 1:00	2/27/22 0:00	6,995,665	20	72.4	0.4
2/26/22 2:00	2/27/22 1:00	6,536,201	22	67.7	0.4
2/26/22 3:00	2/27/22 2:00	6,082,387	22	63.6	0.3
2/26/22 4:00	2/27/22 3:00	5,603,471	22	59.8	0.3
2/26/22 5:00	2/27/22 4:00	5,130,107	22	56.5	0.3
2/26/22 6:00	2/27/22 5:00	4,683,293	22	53.1	0.3
2/26/22 7:00	2/27/22 6:00	4,225,101	22	51.0	0.3
2/26/22 8:00	2/27/22 7:00	3,759,985	24	50.0	0.3
2/26/22 9:00	2/27/22 8:00	3,340,317	22	49.2	0.3
2/26/22 10:00	2/27/22 9:00	2,913,501	25	48.4	0.3
2/26/22 11:00	2/27/22 10:00	2,476,443	20	47.3	0.3
2/26/22 12:00	2/27/22 11:00	2,051,088	12	45.9	0.2
2/26/22 13:00	2/27/22 12:00	1,656,743	13	43.0	0.2
2/26/22 14:00	2/27/22 13:00	1,327,342	15	37.5	0.2
2/26/22 15:00	2/27/22 14:00	953,656	15	30.1	0.2
2/26/22 16:00	2/27/22 15:00	569,012	82	22.1	0.1
2/26/22 17:00	2/27/22 16:00	267,069	134	12.2	0.1

Subpart Ja Root Cause / Corrective Action AnalysisIncident Number: **465000***The information contained below satisfies the requirements of the NSPS Subpart Ja 60.108a(c)(6).*

Report: Initial
Refinery: Valero (Meraux)
Incident Type: Flaring (Flow and SO2)
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?	<u>No</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>No</u>	(Yes/No)

- If yes, skip section 5-7.

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

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

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

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

Estimated Completion Date: 2/14/23

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

Completed Date: 1/19/23

Estimated Completion Date: 2/21/23

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

Commencement Date: 1/19/23

Estimated Completion Date: 2/28/23

(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
12/4/22 16:00	12/5/22 15:00	106,958	20	0.7	0.0
12/4/22 17:00	12/5/22 16:00	108,752	53	2.2	0.0
12/4/22 18:00	12/5/22 17:00	1,025,710	88	131.1	0.7
12/4/22 19:00	12/5/22 18:00	2,904,984	187	876.0	4.7
12/4/22 20:00	12/5/22 19:00	3,266,457	517	1361.5	7.3
12/4/22 21:00	12/5/22 20:00	4,314,639	705	2150.9	11.6
12/4/22 22:00	12/5/22 21:00	4,912,074	966	2778.2	14.9
12/4/22 23:00	12/5/22 22:00	5,402,499	1157	3155.9	17.0
12/5/22 0:00	12/5/22 23:00	5,991,743	1295	3485.2	18.7
12/5/22 1:00	12/6/22 0:00	6,563,675	1410	3750.2	20.2
12/5/22 2:00	12/6/22 1:00	6,845,204	1495	3849.1	20.7
12/5/22 3:00	12/6/22 2:00	6,924,896	1514	3856.0	20.7
12/5/22 4:00	12/6/22 3:00	7,046,974	1533	3866.0	20.8
12/5/22 5:00	12/6/22 4:00	7,167,591	1542	3871.3	20.8
12/5/22 6:00	12/6/22 5:00	7,254,828	1552	3875.5	20.8
12/5/22 7:00	12/6/22 6:00	7,278,260	1560	3876.6	20.8
12/5/22 8:00	12/6/22 7:00	7,278,272	1564	3876.8	20.8
12/5/22 9:00	12/6/22 8:00	7,278,286	1567	3876.9	20.8
12/5/22 10:00	12/6/22 9:00	7,278,272	1571	3877.0	20.8
12/5/22 11:00	12/6/22 10:00	7,295,284	1588	3878.8	20.8
12/5/22 12:00	12/6/22 11:00	7,306,216	1596	3879.5	20.8
12/5/22 13:00	12/6/22 12:00	7,306,211	1599	3879.6	20.8
12/5/22 14:00	12/6/22 13:00	7,306,200	1602	3879.7	20.8
12/5/22 15:00	12/6/22 14:00	7,306,216	1606	3879.8	20.8
12/5/22 16:00	12/6/22 15:00	7,306,221	1609	3880.0	20.8
12/5/22 17:00	12/6/22 16:00	7,304,423	1580	3878.7	20.8
12/5/22 18:00	12/6/22 17:00	6,387,432	1549	3749.9	20.2
12/5/22 19:00	12/6/22 18:00	4,508,164	1453	3005.1	16.1
12/5/22 20:00	12/6/22 19:00	4,146,668	1126	2519.7	13.5
12/5/22 21:00	12/6/22 20:00	3,098,501	941	1730.4	9.3
12/5/22 22:00	12/6/22 21:00	2,501,057	684	1103.2	5.9
12/5/22 23:00	12/6/22 22:00	2,010,638	496	725.6	3.9
12/6/22 0:00	12/6/22 23:00	1,421,383	361	396.4	2.1
12/6/22 1:00	12/7/22 0:00	849,440	250	131.6	0.7
12/6/22 2:00	12/7/22 1:00	567,931	168	32.8	0.2
12/6/22 3:00	12/7/22 2:00	488,256	152	26.0	0.1

Subpart Ja Root Cause / Corrective Action AnalysisIncident Number: **465485***The information contained below satisfies the requirements of the NSPS Subpart Ja 60.108a(c)(6).*

Report: Initial
Refinery: Valero (Meraux)
Incident Type: Flaring (Flow)
Emissions Source(s): North Flare (EPN 20-72, EQT 0035)

Date of Event: 12/15/22
Date Analysis Completed: 1/24/23

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

A description of the Discharge:

On December 15, 2022 at approximately 03:20, Valero experienced flaring from the Reformer Low Pressure Separator to the North Flare. Troubleshooting revealed the flaring was caused by a failed Instrument Air regulator/filter on a pressure control valve that was sending gas to the refinery fuel gas system. This valve had failed closed, but continued to indicate that it was open, and the excess gas was being redirected to the North Flare. Once Valero determined the cause of the flaring, the valve was repaired and placed back in service.

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

Date and Time the discharge was first identified 12/15/22 3:20
Date/Time the discharge had ceased 12/15/22 13:21
Duration of Discharge (Calculated) 10.0 hrs.

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

The steps taken to limit the emissions during the discharge:

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

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

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

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

Did the discharge result from a planned startup or shutdown?	<u>No</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>No</u>	(Yes/No)

- If yes, skip section 5-7.

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

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

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

Valero determined the root cause of this discharge to be the failed Instrument Air regulator/filter on a pressure control valve.

(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) Revise the Maintenance Section to the Control Valve Specification Standard to include the replacement of soft goods and air regulators for valve repairs.

2) Add a feedback positioner indication on the DCS to the valve that caused this flaring event.

(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) *Revise the Maintenance Section to the Control Valve Specification Standard to include the replacement of soft goods and air regulators for valve repairs.*

Commencement Date: 1/24/23

Estimated Completion Date: 4/11/23

2) *Add a feedback positioner indication on the DCS to the valve that caused this flaring event.*

Commencement Date: 1/24/23

Estimated Completion Date: 2/28/23

(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
12/14/22 3:00	12/15/22 2:00	162,815	259	35.4	0.2
12/14/22 4:00	12/15/22 3:00	573,833	271	58.7	0.3
12/14/22 5:00	12/15/22 4:00	1,160,278	273	69.9	0.4
12/14/22 6:00	12/15/22 5:00	1,690,414	275	81.0	0.4
12/14/22 7:00	12/15/22 6:00	2,132,875	278	90.6	0.5
12/14/22 8:00	12/15/22 7:00	2,519,052	281	99.8	0.5
12/14/22 9:00	12/15/22 8:00	2,902,398	286	111.2	0.6
12/14/22 10:00	12/15/22 9:00	3,306,603	290	123.1	0.7
12/14/22 11:00	12/15/22 10:00	3,680,835	294	132.6	0.7
12/14/22 12:00	12/15/22 11:00	4,054,685	296	140.5	0.8
12/14/22 13:00	12/15/22 12:00	4,224,889	302	147.2	0.8
12/14/22 14:00	12/15/22 13:00	4,234,067	309	147.8	0.8
12/14/22 15:00	12/15/22 14:00	4,234,126	310	147.8	0.8
12/14/22 16:00	12/15/22 15:00	4,234,135	311	147.9	0.8
12/14/22 17:00	12/15/22 16:00	4,238,118	313	148.0	0.8
12/14/22 18:00	12/15/22 17:00	4,238,155	315	148.1	0.8
12/14/22 19:00	12/15/22 18:00	4,238,198	316	148.1	0.8
12/14/22 20:00	12/15/22 19:00	4,238,245	317	148.1	0.8
12/14/22 21:00	12/15/22 20:00	4,238,289	318	148.2	0.8
12/14/22 22:00	12/15/22 21:00	4,238,353	319	148.2	0.8
12/14/22 23:00	12/15/22 22:00	4,238,456	321	148.3	0.8
12/15/22 0:00	12/15/22 23:00	4,238,533	322	148.3	0.8
12/15/22 1:00	12/16/22 0:00	4,231,282	257	144.0	0.8
12/15/22 2:00	12/16/22 1:00	4,182,708	135	115.5	0.6
12/15/22 3:00	12/16/22 2:00	4,182,818	133	115.4	0.6
12/15/22 4:00	12/16/22 3:00	3,771,914	122	92.2	0.5
12/15/22 5:00	12/16/22 4:00	3,185,599	121	81.0	0.4
12/15/22 6:00	12/16/22 5:00	2,691,705	265	96.6	0.5
12/15/22 7:00	12/16/22 6:00	2,256,712	318	90.8	0.5
12/15/22 8:00	12/16/22 7:00	1,870,642	318	81.6	0.4
12/15/22 9:00	12/16/22 8:00	1,487,382	316	70.3	0.4
12/15/22 10:00	12/16/22 9:00	1,083,268	313	58.6	0.3
12/15/22 11:00	12/16/22 10:00	709,124	312	49.1	0.3
12/15/22 12:00	12/16/22 11:00	335,335	312	41.3	0.2