



October 28, 2022

CERTIFIED: 7016 2710 0000 3305 5729

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 – 3rd 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 Third Quarter 2022.

For this reporting period, no CEMS had excess emissions greater than 1% of the total operating time, and the H₂S CEMS on the North Flare Stack (EPN 20-72, EQT 0035), North Flare Header had downtime greater than 5% of the total operating time.

Enclosed are the Data Assessment Reports for the appropriate CEMs and information required by NSPS Subpart Ja, 40 CFR 60.108a(d). Subpart Ja root cause and corrective action analysis reports are included with this submittal. Updates to previously submitted Subpart Ja root cause and corrective action analysis reports are also included if corrective actions were completed in this reporting period.

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

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

Regards,

A handwritten signature in dark ink that reads 'Leslie Sullivan' followed by the date '10/21/22'.

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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

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

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

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

Total source operating time in reporting period: 2,208 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	6
e. Unknown causes	0
2. Total CMS Downtime	6
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.3 %

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

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

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

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

Pollutant: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

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

Date of Latest CMS Certification or Audit: CGA on 9/27/22

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

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	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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek, #4661

Date of Latest CMS Certification or Audit: CGA on 9/1/22

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 0010-2,208 hours, EQT 0011-2,201 hours, EQT 0033-2,208 hours, EQT 0058-
2,208 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	19
e. Unknown causes	0
2. Total CMS Downtime	20
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.9 %

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. (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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 9/1/22

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 0013-2,208 hours; EQT 0022-2,208 hours; EQT 0024-2,086 hours; EQT 0027-2,088 hours; EQT 0028-2,119 hours; EQT 0029-2,101 hours; EQT 0014-2,208 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	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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 9/1/22

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 0127-1,103 hours; EQT 0159-2,096 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	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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 9/1/22

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 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))

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 9/1/22

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: 2,208 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	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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 9/1/22

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 0030-2,008 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	0	0
e. Unknown causes	0	0
2. Total CMS Downtime	0	0
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.0 %	0.0 %

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

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

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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NO_x)/ Magnos 28 (O₂)

Date of Latest CMS Certification or Audit: CGA on 9/6/22

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

Total source operating time in reporting period: 2,008 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	1
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	1
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.0 %

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

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

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

(per 40 CFR 60.7(d))

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NOx)/ Magnos 28 (O₂)

Date of Latest CMS Certification or Audit: CGA on 9/6/22

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	8
e. Unknown causes	7
2. Total CMS Downtime	15
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	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.

**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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

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

Date of Latest CMS Certification or Audit: CGA on 8/31/22

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

Total source operating time in reporting period: 2,208 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	5
e. Unknown causes	0
2. Total CMS Downtime	5
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.2 %

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

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

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

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

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

Date of Latest CMS Certification or Audit: RATA on 9/7/22

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

Total source operating time in reporting period: 1,083 hours

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

CMS Performance Summary ¹	
1. CMS downtime in reporting period due to:	(hours)
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	1
d. Other known causes	7
e. Unknown causes	0
2. Total CMS Downtime	8
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	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.

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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

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

Date of Latest CMS Certification or Audit: CGA on 9/26/22

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

Total source operating time in reporting period: 2,058 hours

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

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	2
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	2
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.1 %

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

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

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

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

Pollutant: **NO_x**

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

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

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

Date of Latest CMS Certification or Audit: CGA on 8/30/22

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

Total source operating time in reporting period: 2,208 hours

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

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

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

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

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

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

Pollutant: **NO_x**

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

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

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

Date of Latest CMS Certification or Audit: CGA on 9/27/22

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

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

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

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

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

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

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: RATA on 8/31/22

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

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	290
e. Unknown causes	0
2. Total CMS Downtime	290
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	13.1 %

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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 9/1/22

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

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	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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 9/1/22

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

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	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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

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

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

Total source operating time in reporting period: 2,208 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	4
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	4
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.2 %

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

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

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

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

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

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

Total source operating time in reporting period: 2,208 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	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: **Total Sulfur**

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

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

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

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

Total source operating time in reporting period: 2,208 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	1
d. Other known causes	4
e. Unknown causes	0
2. Total CMS Downtime	5
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.2 %

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

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

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

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

Pollutant: **Flow**

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

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

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

Total source operating time in reporting period: 2,208 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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametries 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: 2,208 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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: SICK FLOWSIC100 Flare

Date of Latest CMS Certification or Audit: N/A

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

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


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

The Benzene Recovery Unit Reboiler (EPN 1-09, EQT 0127) did not operate in the 2nd Quarter 2022, so the RATA on the NO_x and O₂ CEMS was performed in the 3rd Quarter. Additionally, a RATA was performed on the H₂S CEMS on the North Flare Stack (EPN 20-72, EQT 0035), North Flare Header because this RATA was missed in the 2nd Quarter 2022 due to the analyzer being down for repairs.

For all other CMS covered in this report, no changes were made in the 3rd Quarter 2022 to CMS, process, or controls.

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

Dan Patroad
Name


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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

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

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

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

Total source operating time in reporting period: 2,208 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
7/1/22	09:00	12:00	3	Offline to clean sample lines.	Calibrated and returned to service.
7/2/22	11:00	12:00	1	Offline to clean sample lines.	Calibrated and returned to service.
7/26/22	10:00	11:00	1	Offline to clean sample lines.	Calibrated and returned to service.
7/26/22	13:00	14:00	1	Offline to clean sample lines.	Calibrated and returned to service.
TOTAL			6		

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

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

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

Pollutant: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

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

Date of Latest CMS Certification or Audit: CGA on 9/27/22

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

Total source operating time in reporting period: 2,208 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
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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 9/1/22

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 0127-1,103 hours; EQT 0159-2,096 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
None					
TOTAL			0		

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

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

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

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

Date of Latest CMS Certification or Audit: RATA on 9/7/22

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

Total source operating time in reporting period: 1,082 hours

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

Ja CMS PERFORMANCE¹					
Date	Start	End	Duration (hours)	Cause	Corrective Action
8/20/22	11:00	12:00	1	Adjustment for calibration drift.	Calibrated and returned to service.
9/15/22	08:00	15:00	7	Offline for annual preventative maintenance.	Calibrated and returned to service.
TOTAL			8		

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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

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

Date of Latest CMS Certification or Audit: CGA on 9/26/22

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

Total source operating time in reporting period: 2,058 hours

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

Ja CMS PERFORMANCE¹					
Date	Start	End	Duration (hours)	Cause	Corrective Action
7/6/22	09:00	10:00	1	Offline for preventative maintenance.	Calibrated and returned to service.
7/28/22	10:00	11:00	1	Adjustment for calibration drift.	Calibrated and returned to service.
TOTAL			2		

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

GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

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

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: RATA on 8/31/22

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

Total source operating time in reporting period: 2,208 hours

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

Ja CMS PERFORMANCE²					
Date	Start	End	Duration (hours)	Cause	Corrective Action
7/1/22	00:00		282	Continued downtime from the 2 nd Quarter 2022. Analyzer failed and could not be repaired. Valero sent the laser measurement cell of this analyzer back to the manufacturer to be rebuilt and aligned.	The analyzer was calibrated and placed back in service.
7/12/22		18:00			
8/1/22	13:00	14:00	1	Offline for manufacturer troubleshooting of erratic readings and need for frequent adjustments after installing the new laser measurement cell.	Repaired a fiber optic cable and resealed laser measurement cell. Analyzer was calibrated and returned to service.
8/2/22	07:00	11:00	4		
8/2/22	14:00	17:00	3		
TOTAL			290		

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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 9/1/22

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

Total source operating time in reporting period: 2,208 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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 9/1/22

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

Total source operating time in reporting period: 2,208 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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

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

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

Total source operating time in reporting period: 2,208 hours

Ja CMS PERFORMANCE²					
Date	Start	End	Duration (hours)	Cause	Corrective Action
8/18/22	11:00	12:00	1	Adjustment for calibration drift.	Calibrated and returned to service.
9/14/22	09:00	10:00	1	Adjustment for calibration drift.	Calibrated and returned to service.
9/30/22	08:00	10:00	2	Cylinder Gas Audit	N/A
TOTAL			4		

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

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

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

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

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

Total source operating time in reporting period: 2,208 hours

Ja CMS PERFORMANCE ²					
Date	Start	End	Duration (hours)	Cause	Corrective Action
8/9/22	10:00	12:00	2	Adjustment for calibration drift.	Calibrated and returned to service.
9/30/22	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: **Total Sulfur**

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

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

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

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

Total source operating time in reporting period: 2,208 hours

Ja CMS PERFORMANCE ²					
Date	Start	End	Duration (hours)	Cause	Corrective Action
8/24/22	13:00	17:00	4	Offline to rebuild sample pump.	Calibrated and returned to service.
9/30/22	09:00	10:00	1	Cylinder Gas Audit	N/A
TOTAL			5		

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

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

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

Pollutant: **Flow**

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

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

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

Total source operating time in reporting period: 2,208 hours

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

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

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

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

Pollutant: **Flow**

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

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

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

Total source operating time in reporting period: 2,208 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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: SICK FLOWSIC100 Flare

Date of Latest CMS Certification or Audit: N/A

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

Total source operating time in reporting period: 2,208 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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

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

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

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

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	SO ₂ #1 (low scale)	SO ₂ #2 (high scale)	O ₂ #1 (low scale)	O ₂ #2 (high scale)
Date of Audit	9/30/22	9/30/22	9/30/22	9/30/22
Audit Gas Cylinder No.	SG9150051BAL	CC94008	CC483689	SG9152263BAL
Date of Audit Gas Cert.	5/27/16	5/27/16	5/23/16	5/23/16
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	124.9 ppmv	275.3 ppmv	5.99 vol %	10.05 vol %
CEM Response Value	125.7 ppmv	273.0 ppmv	6.00 vol %	9.90 vol %
Accuracy	0.6%	0.8%	0.2%	1.5%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

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

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

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

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	SO ₂ #1 (low scale)	SO ₂ #2 (high scale)	O ₂ #1 (low scale)	O ₂ #2 (high scale)
Date of Audit	9/27/22	9/27/22	9/27/22	9/27/22
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	127.1 ppmv	276.0 ppmv	5.35 vol %	9.46 vol %
Accuracy	1.4%	0.3%	10.7%	5.2%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

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

CEM Sampling Location: Area 1 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H₂S #1	H₂S #2
	<u>(low scale)</u>	<u>(high scale)</u>
Date of Audit	9/1/22	9/1/22
Audit Gas Cylinder No.	LL41203	BLM001397
Date of Audit Gas Cert.	9/24/19	9/24/19
Type of Certification	EPA Protocol 1	EPA Protocol 1
Certified Audit Value (ppmv)	75.6	163.7
CEM Response Value (ppmv)	72.0	160.3
Accuracy	4.8%	2.1%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **H₂S**

Applicable NSPS Subpart: J and Ja

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

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

CEM Sampling Location: Area 2 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 (low scale)	H ₂ S #2 (high scale)
Date of Audit	9/1/22	9/1/22
Audit Gas Cylinder No.	CC58723	APL001013
Date of Audit Gas Cert.	9/18/19	9/18/19
Type of Certification	EPA Protocol 1	EPA Protocol 1
Certified Audit Value (ppmv)	77.1	177.6
CEM Response Value (ppmv)	73.1	171.5
Accuracy	5.2%	3.4%
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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

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

CEM Sampling Location: Area 4 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H₂S #1	H₂S #2
	<u>(low scale)</u>	<u>(high scale)</u>
Date of Audit	9/1/22	9/1/22
Audit Gas Cylinder No.	XL000609B	LL62684
Date of Audit Gas Cert.	9/24/19	9/24/19
Type of Certification	EPA Protocol 1	EPA Protocol 1
Certified Audit Value (ppmv)	75.6	165.5
CEM Response Value (ppmv)	71.3	161.3
Accuracy	5.7%	2.5%
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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

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

CEM Sampling Location: Area 6 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	9/1/22	9/1/22
Audit Gas Cylinder No.	BLM001939	LL71653
Date of Audit Gas Cert.	9/24/19	9/24/19
Type of Certification	EPA Protocol 1	EPA Protocol 1
Certified Audit Value (ppmv)	75.3	165.9
CEM Response Value (ppmv)	72.7	156.3
Accuracy	3.5%	5.8%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

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

CEM Sampling Location: Area 6 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H₂S #1	H₂S #2
	<u>(low scale)</u>	<u>(high scale)</u>
Date of Audit	9/1/22	9/1/22
Audit Gas Cylinder No.	ALM040395	ALM040542
Date of Audit Gas Cert.	9/18/19	9/18/19
Type of Certification	EPA Protocol 1	EPA Protocol 1
Certified Audit Value (ppmv)	75.0	175.7
CEM Response Value (ppmv)	68.0	178.0
Accuracy	9.3%	1.3%
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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NO_x)/ Magnos 28 (O₂)

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

CEM Sampling Location: Boiler B-5

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

I. ACCURACY ASSESSMENT RESULTS (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	9/6/22	9/6/22	9/6/22	9/6/22
Audit Gas Cylinder No.	BLM003457	LL64747	CC483685	LL168197
Date of Audit Gas Cert.	10/4/19	5/3/16	5/23/16	4/25/16
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	25.3 ppmv	54.5 ppmv	6.00 vol %	10.10 vol %
CEM Response Value	24.2 ppmv	53.1 ppmv	5.78 vol %	10.02 vol %
Accuracy	4.3%	2.6%	3.7%	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: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NO_x)/ Magnos 28 (O₂)

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

CEM Sampling Location: Boiler B-6

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	NO _x #1 (low scale)	NO _x #2 (high scale)	O ₂ #1 (low scale)	O ₂ #2 (high scale)
Date of Audit	9/6/22	9/6/22	9/6/22	9/6/22
Audit Gas Cylinder No.	BLM003457	LL64747	CC483685	LL168197
Date of Audit Gas Cert.	10/4/19	5/3/16	5/23/16	4/25/16
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	25.3 ppmv	54.5 ppmv	6.00 vol %	10.10 vol %
CEM Response Value	25.4 ppmv	53.4 ppmv	6.07 vol %	10.14 vol %
Accuracy	0.4%	2.0%	1.2%	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: Db

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

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

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

CEM Sampling Location: Boiler TB-01

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	NO _x #1 (low scale)	NO _x #2 (high scale)	O ₂ #1 (low scale)	O ₂ #2 (high scale)
Date of Audit	8/31/22	8/31/22	8/31/22	8/31/22
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	124.2 ppmv	266.0 ppmv	5.63 vol %	9.60 vol %
Accuracy	2.1%	1.7%	6.6%	5.0%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

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

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

CEM Sampling Location: Benzene Recovery Unit Reboiler

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

I. ACCURACY ASSESSMENT RESULTS (RATA):

	NO _x , ppmvd	O ₂ , vol % (dry)
Date of Audit	9/7/22	9/7/22
Reference Method	EPA Method 7E	EPA Method 3A
Average RM Value	15.74 ppmvd	8.93 vol %
Average CEM Value	14.85 ppmvd	9.03 vol %
Accuracy	5.64 %	1.82 %
Limit	< 20 %	< 20 %

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

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

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

CEM Sampling Location: NHT Charge Heater

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

I. ACCURACY ASSESSMENT RESULTS (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	9/26/22	9/26/22	9/26/22	9/26/22
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	24.5 ppmv	53.5 ppmv	6.14 vol %	10.10 vol %
Accuracy	4.7%	3.6%	2.3%	1.1%
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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

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

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

CEM Sampling Location: No.1 Crude Heater

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

I. ACCURACY ASSESSMENT RESULTS (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	8/30/22	8/30/22	8/30/22	8/30/22
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	27.0 ppmv	59.1 ppmv	6.00 vol %	10.00 vol %
Accuracy	7.0%	6.6%	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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(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	9/27/22	9/27/22	9/27/22	9/27/22
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	25.5 ppmv	51.6 ppmv	6.01 vol %	9.96 vol %
Accuracy	1.2%	6.5%	0.1%	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: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

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

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

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (RATA):

	<u>H₂S</u>
Date of Audit	8/31/22
Reference Method	EPA Method 11
Average RM Value (ppmv)	33.08 ppmv
Average CEM Value (ppmv)	32.14 ppmv
Accuracy	2.81 %
Limit	< 10 %

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

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

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

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 (low scale)	H ₂ S #2 (high scale)
Date of Audit	9/1/22	9/1/22
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	74.0 ppmv	168.3 ppmv
Accuracy	6.9%	2.5%
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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

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

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

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 (low scale)	H ₂ S #2 (high scale)
Date of Audit	9/1/22	9/1/22
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	77.3 ppmv	170.7 ppmv
Accuracy	2.8%	1.2%
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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

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

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

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	9/30/22	9/30/22
Audit Gas Cylinder No.	CC431101	SG9133262BAL
Date of Audit Gas Cert.	4/29/20	11/5/20
Type of Certification	EPA Protocol 1	Primary Standard1
Certified Audit Value (ppmv)	1030.0 ppmv	5559.0 ppmv
CEM Response Value (ppmv)	1015.6 ppmv	5731.0 ppmv
Accuracy	1.4%	3.1%
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 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

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

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

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	9/30/22	9/30/22
Audit Gas Cylinder No.	CC431101	SG9133262BAL
Date of Audit Gas Cert.	4/29/20	11/5/20
Type of Certification	EPA Protocol 1	Primary Standard1
Certified Audit Value (ppmv)	1030.0 ppmv	5559.0 ppmv
CEM Response Value (ppmv)	981.0 ppmv	5715.8 ppmv
Accuracy	4.8%	2.8%
Standard	<15%	<15%

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

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 7/1/22 to 9/30/22

Date submitted: 10/28/22

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

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

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

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 (low scale)	H ₂ S #2 (high scale)
Date of Audit	9/30/22	9/30/22
Audit Gas Cylinder No.	CC431101	SG9133262BAL
Date of Audit Gas Cert.	4/29/20	11/5/20
Type of Certification	EPA Protocol 1	Primary Standard1
Certified Audit Value	1030.0 ppmv	5559.0 ppmv
CEM Response Value	1039.2 ppmv	5953.5 ppmv
Accuracy	0.9%	7.1%
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

2) Design an upgrade for the governor controller system.

Commencement Date: 3/25/22

Estimated Completion Date: 12/6/22

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

Commencement Date: 3/25/22

Completed Date: 8/3/22

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

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

(8.) The measured or calculated cumulative quantity of gas discharged over the discharge duration. <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: **458538***The information contained below satisfies the requirements of the NSPS Subpart Ja 60.108a(c)(6).*

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

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

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

A description of the Discharge:

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

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

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

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

The steps taken to limit the emissions during the discharge:

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

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

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

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

Did the discharge result from a planned startup or shutdown?	<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 lube oil tubing due to vibration of the PSA tailgas compressor.

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

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

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

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

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

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

Commencement Date: 7/27/22

Completed Date: 10/7/22

(8.)					
The measured or calculated cumulative quantity of gas discharged over the discharge duration.					
<i>Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.</i>					
		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	Last hour of 24-hr Period	24-hr cumulative volume of flared gas above Baseline	TRS or H2S ppm (24-hr average, flow-weighted)	24-hr cumulative SO2	24-hr cumulative reduced sulfur
		SCF	ppmv	lbs	lbs as H2S
6/11/22 8:00	6/12/22 7:00	106,802	30	1.3	0.0
6/11/22 9:00	6/12/22 8:00	188,441	152	3.5	0.0
6/11/22 10:00	6/12/22 9:00	889,685	1600	190.6	1.0
6/11/22 11:00	6/12/22 10:00	1,151,493	278	203.0	1.1
6/11/22 12:00	6/12/22 11:00	1,296,495	15	203.3	1.1
6/11/22 13:00	6/12/22 12:00	1,296,481	37	203.3	1.1
6/11/22 14:00	6/12/22 13:00	1,296,464	41	203.3	1.1
6/11/22 15:00	6/12/22 14:00	1,296,464	41	203.3	1.1
6/11/22 16:00	6/12/22 15:00	1,296,481	45	203.3	1.1
6/11/22 17:00	6/12/22 16:00	1,296,479	41	203.3	1.1
6/11/22 18:00	6/12/22 17:00	1,296,490	42	203.3	1.1
6/11/22 19:00	6/12/22 18:00	1,296,481	41	203.3	1.1
6/11/22 20:00	6/12/22 19:00	1,296,494	37	203.3	1.1
6/11/22 21:00	6/12/22 20:00	1,296,503	39	203.3	1.1
6/11/22 22:00	6/12/22 21:00	1,296,487	38	203.3	1.1
6/11/22 23:00	6/12/22 22:00	1,296,481	38	203.3	1.1
6/12/22 0:00	6/12/22 23:00	1,296,477	39	203.3	1.1
6/12/22 1:00	6/13/22 0:00	1,302,426	450	204.4	1.1
6/12/22 2:00	6/13/22 1:00	1,491,799	85	207.1	1.1
6/12/22 3:00	6/13/22 2:00	1,658,897	193	212.7	1.1
6/12/22 4:00	6/13/22 3:00	1,675,350	2681	223.9	1.2
6/12/22 5:00	6/13/22 4:00	1,675,351	39	223.9	1.2
6/12/22 6:00	6/13/22 5:00	1,675,369	37	223.9	1.2
6/12/22 7:00	6/13/22 6:00	1,675,374	35	223.9	1.2
6/12/22 8:00	6/13/22 7:00	1,675,383	34	223.9	1.2
6/12/22 9:00	6/13/22 8:00	1,593,729	38	221.7	1.2
6/12/22 10:00	6/13/22 9:00	892,468	36	34.6	0.2
6/12/22 11:00	6/13/22 10:00	630,653	36	22.2	0.1
6/12/22 12:00	6/13/22 11:00	485,629	39	21.9	0.1

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

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

Date of Event: 9/19/21
Date Analysis Completed: N/A

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

A description of the Discharge:

This discharge resulted from the normal shutdown of the Naphtha Hydrotreater Unit (NHT) and Reformer Unit for the planned replacement of NHT reactor catalyst. The discharge included activities such as reactor cooldown, depressurization, and Nitrogen purging.

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

Date and Time the discharge was first identified 9/19/22 1:00
Date/Time the discharge had ceased 9/22/22 14:00
Duration of Discharge (Calculated) 85.0 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 of this discharge. Additional purges and Nitrogen volume was required to comply with the maintenance vent provisions of 40 CFR 63.643 as well as additional supplemental natural gas required to comply with the Net Heating Value of the Combustion Zone limit (> 270 Btu/scf) of 40 CFR 63.670, that became effective on January 30, 2019.

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

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

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

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

- If yes, skip section 5-7.

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

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

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

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

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

Is corrective action required? No (Yes/No)
N/A

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

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

N/A

(8.) The measured or calculated cumulative quantity of gas discharged over the discharge duration. <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
9/18/22 1:00	9/19/22 0:00	325,255	16	9.3	0.1
9/18/22 2:00	9/19/22 1:00	372,304	621	15.1	0.1
9/18/22 3:00	9/19/22 2:00	433,692	549	21.4	0.1
9/18/22 4:00	9/19/22 3:00	458,220	957	26.7	0.1
9/18/22 5:00	9/19/22 4:00	477,541	484	29.0	0.2
9/18/22 6:00	9/19/22 5:00	498,541	381	30.8	0.2
9/18/22 7:00	9/19/22 6:00	519,212	591	33.7	0.2
9/18/22 8:00	9/19/22 7:00	539,313	1264	39.8	0.2
9/18/22 9:00	9/19/22 8:00	558,772	1152	45.2	0.2
9/18/22 10:00	9/19/22 9:00	580,696	2098	55.9	0.3
9/18/22 11:00	9/19/22 10:00	622,400	931	63.7	0.3
9/18/22 12:00	9/19/22 11:00	674,184	707	70.8	0.4
9/18/22 13:00	9/19/22 12:00	702,506	1136	78.2	0.4
9/18/22 14:00	9/19/22 13:00	509,672	1095	75.0	0.4
9/18/22 15:00	9/19/22 14:00	538,011	1366	83.4	0.4
9/18/22 16:00	9/19/22 15:00	569,388	901	89.4	0.5
9/18/22 17:00	9/19/22 16:00	672,552	366	96.1	0.5
9/18/22 18:00	9/19/22 17:00	822,962	276	103.3	0.6
9/18/22 19:00	9/19/22 18:00	986,433	241	110.1	0.6
9/18/22 20:00	9/19/22 19:00	1,171,307	176	115.7	0.6
9/18/22 21:00	9/19/22 20:00	1,380,997	159	121.5	0.7
9/18/22 22:00	9/19/22 21:00	1,614,623	128	126.5	0.7
9/18/22 23:00	9/19/22 22:00	1,846,818	125	131.5	0.7
9/19/22 0:00	9/19/22 23:00	2,081,842	147	137.3	0.7
9/19/22 1:00	9/20/22 0:00	2,329,898	103	141.7	0.8
9/19/22 2:00	9/20/22 1:00	2,536,722	116	141.0	0.8
9/19/22 3:00	9/20/22 2:00	2,680,644	157	140.1	0.8
9/19/22 4:00	9/20/22 3:00	2,892,864	111	139.3	0.7
9/19/22 5:00	9/20/22 4:00	3,109,826	146	143.0	0.8
9/19/22 6:00	9/20/22 5:00	3,356,419	120	146.6	0.8
9/19/22 7:00	9/20/22 6:00	3,609,476	105	148.6	0.8
9/19/22 8:00	9/20/22 7:00	3,868,118	120	148.1	0.8
9/19/22 9:00	9/20/22 8:00	4,013,722	186	148.1	0.8
9/19/22 10:00	9/20/22 9:00	4,060,734	344	141.7	0.8
9/19/22 11:00	9/20/22 10:00	4,061,922	552	138.7	0.7
9/19/22 12:00	9/20/22 11:00	4,054,965	732	138.1	0.7
9/19/22 13:00	9/20/22 12:00	4,072,384	537	135.5	0.7
9/19/22 14:00	9/20/22 13:00	4,102,551	492	135.1	0.7
9/19/22 15:00	9/20/22 14:00	4,124,659	480	131.4	0.7
9/19/22 16:00	9/20/22 15:00	4,143,583	451	129.8	0.7
9/19/22 17:00	9/20/22 16:00	4,090,444	343	126.3	0.7
9/19/22 18:00	9/20/22 17:00	3,989,217	417	123.1	0.7
9/19/22 19:00	9/20/22 18:00	3,873,395	340	119.4	0.6
9/19/22 20:00	9/20/22 19:00	3,737,636	390	117.5	0.6
9/19/22 21:00	9/20/22 20:00	3,576,961	996	121.4	0.7
9/19/22 22:00	9/20/22 21:00	3,391,794	1031	126.0	0.7
9/19/22 23:00	9/20/22 22:00	3,204,955	753	127.8	0.7
9/20/22 0:00	9/20/22 23:00	3,017,796	902	130.4	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
9/20/22 1:00	9/21/22 0:00	2,818,474	926	134.9	0.7
9/20/22 2:00	9/21/22 1:00	2,616,713	756	137.5	0.7
9/20/22 3:00	9/21/22 2:00	2,482,596	787	142.3	0.8
9/20/22 4:00	9/21/22 3:00	2,353,140	364	144.8	0.8
9/20/22 5:00	9/21/22 4:00	2,240,905	238	144.1	0.8
9/20/22 6:00	9/21/22 5:00	2,093,097	270	144.4	0.8
9/20/22 7:00	9/21/22 6:00	1,938,351	269	145.2	0.8
9/20/22 8:00	9/21/22 7:00	1,781,248	238	144.6	0.8
9/20/22 9:00	9/21/22 8:00	1,747,235	268	145.5	0.8
9/20/22 10:00	9/21/22 9:00	1,808,286	240	146.5	0.8
9/20/22 11:00	9/21/22 10:00	1,895,810	250	147.6	0.8
9/20/22 12:00	9/21/22 11:00	1,981,368	269	147.3	0.8
9/20/22 13:00	9/21/22 12:00	2,030,962	252	146.5	0.8
9/20/22 14:00	9/21/22 13:00	2,059,764	335	146.6	0.8
9/20/22 15:00	9/21/22 14:00	2,091,404	419	148.2	0.8
9/20/22 16:00	9/21/22 15:00	2,126,691	274	148.0	0.8
9/20/22 17:00	9/21/22 16:00	2,161,533	235	148.3	0.8
9/20/22 18:00	9/21/22 17:00	2,198,743	283	148.8	0.8
9/20/22 19:00	9/21/22 18:00	2,284,555	242	151.3	0.8
9/20/22 20:00	9/21/22 19:00	2,374,186	180	151.9	0.8
9/20/22 21:00	9/21/22 20:00	2,465,705	132	145.6	0.8
9/20/22 22:00	9/21/22 21:00	2,508,393	176	138.7	0.7
9/20/22 23:00	9/21/22 22:00	2,493,939	679	136.5	0.7
9/21/22 0:00	9/21/22 23:00	2,504,837	435	132.9	0.7
9/21/22 1:00	9/22/22 0:00	2,519,307	401	128.8	0.7
9/21/22 2:00	9/22/22 1:00	2,533,427	283	124.7	0.7
9/21/22 3:00	9/22/22 2:00	2,532,809	327	118.6	0.6
9/21/22 4:00	9/22/22 3:00	2,506,745	308	116.2	0.6
9/21/22 5:00	9/22/22 4:00	2,467,186	277	115.2	0.6
9/21/22 6:00	9/22/22 5:00	2,431,703	235	113.1	0.6
9/21/22 7:00	9/22/22 6:00	2,405,192	263	111.8	0.6
9/21/22 8:00	9/22/22 7:00	2,399,139	254	111.9	0.6
9/21/22 9:00	9/22/22 8:00	2,361,269	240	109.8	0.6
9/21/22 10:00	9/22/22 9:00	2,340,934	236	108.9	0.6
9/21/22 11:00	9/22/22 10:00	2,313,156	295	108.6	0.6
9/21/22 12:00	9/22/22 11:00	2,230,553	339	105.6	0.6
9/21/22 13:00	9/22/22 12:00	2,152,879	539	103.8	0.6
9/21/22 14:00	9/22/22 13:00	2,095,175	303	100.5	0.5
9/21/22 15:00	9/22/22 14:00	2,013,619	67	94.3	0.5
9/21/22 16:00	9/22/22 15:00	1,928,022	57	90.1	0.5
9/21/22 17:00	9/22/22 16:00	1,843,114	51	86.5	0.5
9/21/22 18:00	9/22/22 17:00	1,756,718	49	82.1	0.4
9/21/22 19:00	9/22/22 18:00	1,623,224	47	76.5	0.4
9/21/22 20:00	9/22/22 19:00	1,484,470	51	72.2	0.4
9/21/22 21:00	9/22/22 20:00	1,343,941	44	69.0	0.4
9/21/22 22:00	9/22/22 21:00	1,252,765	40	66.2	0.4
9/21/22 23:00	9/22/22 22:00	1,221,840	30	61.7	0.3
9/22/22 0:00	9/22/22 23:00	1,163,063	25	56.9	0.3

(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
9/22/22 1:00	9/23/22 0:00	1,099,821	25	52.2	0.3
9/22/22 2:00	9/23/22 1:00	1,033,573	24	48.7	0.3
9/22/22 3:00	9/23/22 2:00	962,976	23	44.4	0.2
9/22/22 4:00	9/23/22 3:00	881,719	25	39.9	0.2
9/22/22 5:00	9/23/22 4:00	797,228	29	35.7	0.2
9/22/22 6:00	9/23/22 5:00	712,881	30	32.1	0.2
9/22/22 7:00	9/23/22 6:00	620,374	31	27.7	0.1
9/22/22 8:00	9/23/22 7:00	504,760	30	22.6	0.1
9/22/22 9:00	9/23/22 8:00	411,549	29	18.6	0.1

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

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

Date of Event: 9/24/21
Date Analysis Completed: N/A

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

A description of the Discharge:

This discharge resulted from the normal startup of the Naphtha Hydrotreater Unit (NHT) and Reformer Unit following the planned replacement of NHT reactor catalyst. The discharge included activities such as purging vessels and compressor starting.

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

Date and Time the discharge was first identified 9/24/22 10:38
Date/Time the discharge had ceased 9/24/22 15:23
Duration of Discharge (Calculated) 4.7 hrs.

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

The steps taken to limit the emissions during the discharge:

Valero followed its Flare Minimization Plan and Operations Procedures to minimize the volume of this discharge. Additional purges and Nitrogen volume was required to comply with the maintenance vent provisions of 40 CFR 63.643 as well as additional supplemental natural gas required to comply with the Net Heating Value of the Combustion Zone limit (> 270 Btu/scf) of 40 CFR 63.670, that became effective on January 30, 2019.

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

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

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

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

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

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

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

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

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

Is corrective action required? No (Yes/No)
N/A

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

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

N/A

(8.)

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

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

		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	Last hour of 24-hr Period	24-hr cumulative volume of flared gas above Baseline	TRS or H2S ppm (24-hr average, flow-weighted)	24-hr cumulative SO2	24-hr cumulative reduced sulfur
		SCF	ppmv	lbs	lbs as H2S
9/23/22 10:00	9/24/22 9:00	125,106	32	4.2	0.0
9/23/22 11:00	9/24/22 10:00	142,067	333	5.8	0.0
9/23/22 12:00	9/24/22 11:00	280,647	272	12.3	0.1
9/23/22 13:00	9/24/22 12:00	438,646	145	16.3	0.1
9/23/22 14:00	9/24/22 13:00	597,777	145	20.3	0.1
9/23/22 15:00	9/24/22 14:00	779,069	158	25.2	0.1
9/23/22 16:00	9/24/22 15:00	850,960	168	27.4	0.1
9/23/22 17:00	9/24/22 16:00	850,973	85	27.5	0.1
9/23/22 18:00	9/24/22 17:00	850,986	79	27.6	0.1
9/23/22 19:00	9/24/22 18:00	845,153	77	26.5	0.1
9/23/22 20:00	9/24/22 19:00	842,528	66	26.4	0.1
9/23/22 21:00	9/24/22 20:00	842,567	41	26.4	0.1
9/23/22 22:00	9/24/22 21:00	842,571	26	26.3	0.1
9/23/22 23:00	9/24/22 22:00	842,619	25	26.3	0.1
9/24/22 0:00	9/24/22 23:00	842,654	23	26.3	0.1
9/24/22 1:00	9/25/22 0:00	842,689	24	26.3	0.1
9/24/22 2:00	9/25/22 1:00	842,738	24	26.3	0.1
9/24/22 3:00	9/25/22 2:00	842,790	23	26.3	0.1
9/24/22 4:00	9/25/22 3:00	836,542	24	24.6	0.1
9/24/22 5:00	9/25/22 4:00	836,568	26	24.5	0.1
9/24/22 6:00	9/25/22 5:00	836,576	26	24.5	0.1
9/24/22 7:00	9/25/22 6:00	836,614	27	24.5	0.1
9/24/22 8:00	9/25/22 7:00	836,617	29	24.4	0.1
9/24/22 9:00	9/25/22 8:00	836,632	25	24.4	0.1
9/24/22 10:00	9/25/22 9:00	836,663	25	24.4	0.1
9/24/22 11:00	9/25/22 10:00	816,376	31	22.9	0.1
9/24/22 12:00	9/25/22 11:00	677,787	36	16.3	0.1
9/24/22 13:00	9/25/22 12:00	519,766	39	12.4	0.1
9/24/22 14:00	9/25/22 13:00	360,638	37	8.4	0.0