



January 30, 2021

CERTIFIED: 7016 2710 0001 0589 4751

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

Re: NSPS Excess Emissions & CEM Performance Report – 4th Quarter 2020
Valero Refining - Meraux LLC, Agency Interest # 1238
2235 Jacob Drive, St. Bernard Parish, Meraux, LA
Title V Permit Numbers: 2500-00001-V17

Gentlemen,

Valero Refining, Meraux LLC is submitting this Excess Emissions and Monitoring Systems Reports, per LAC 33:III, Chapter 30, 40 CFR 60.7(c), 40 CFR 60.108a(d) and 40 CFR 63.1575 for the Fourth Quarter 2020.

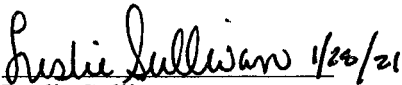
For this reporting period, the SO₂ and O₂ CEMS on the #2 SRU (EPN 1-93, EQT 0019) had excess emissions greater than 1% of the total operating time and no CEMS had downtime greater than 5% of the total operating time.

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

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

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

Regards,


Leslie Sullivan
Vice President and General Manager
Meraux Refinery

Enclosures

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

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

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

Pollutant: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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.: Brimstone SGX-231(SO₂)/Rosemount Oxymitter 4000(O₂)

Date of Latest CMS Certification or Audit: CGA on 10/27/20

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

Total source operating time in reporting period: 1,964 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	27
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	27
3. Total duration of excess emissions x (100) [Total source operating time] ²	1.4 %

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	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	0.4 %

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

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

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

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

Pollutant: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

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

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

Date of Latest CMS Certification or Audit: CGA on 11/24/20

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

Total source operating time in reporting period: 2,147 hours

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

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	1
d. Other known causes	8
e. Unknown causes	0
2. Total CMS Downtime	9
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.4 %

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

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

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

(per 40 CFR 60.7(d))

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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 10/20/20

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

Total source operating time in reporting period: EQT 0010-2,209 hours, EQT 0011-1,971 hours, EQT 0033-2,197 hours, EQT 0058-1,593 hours

Emissions Data Summary¹				
1. Duration of excess emissions in reporting period due to:	<i>EQT 0010</i> (hours)	<i>EQT 0011</i> (hours)	<i>EQT 0033</i> (hours)	<i>EQT 0058</i> (hours)
a. Startup/shutdown	0	0	0	0
b. Control equipment problems	0	0	0	0
c. Process problems	0	0	0	0
d. Other known causes	0	0	0	0
e. Unknown causes	0	0	0	0
2. Total duration of excess emission	0	0	0	0
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.0 %	0.0 %	0.0 %	0.0 %

CMS Performance Summary¹				
1. CMS downtime in reporting period due to:	<i>EQT 0010</i> (hours)	<i>EQT 0011</i> (hours)	<i>EQT 0033</i> (hours)	<i>EQT 0058</i> (hours)
a. Monitor equipment malfunctions	0	0	0	0
b. Non-Monitor equipment malfunctions	0	0	0	0
c. Quality assurance calibration	0	0	0	0
d. Other known causes	15	14	6	0
e. Unknown causes	0	0	0	0
2. Total CMS Downtime	15	14	6	0
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.7 %	0.7 %	0.3 %	0.0 %

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

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

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND

MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d))

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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 10/22/20

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 0013-2,201 hours; EQT 0022-2,205 hours; EQT 0024-2,067 hours; EQT 0027-2,081 hours; EQT 0028-2,107 hours; EQT 0029-2,061 hours; EQT 0014-2,209 hours

Emissions Data Summary¹			
1. Duration of excess emissions in reporting period due to:	<i>EQT 0022 (hours)</i>	<i>EQT's 0028, 0014 (hours)</i>	<i>All Other EQT's (hours)</i>
a. Startup/shutdown	0	0	0
b. Control equipment problems	0	0	0
c. Process problems	2	4	0
d. Other known causes	0	0	0
e. Unknown causes	0	0	0
2. Total duration of excess emission	2	4	0
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.0 %	0.2 %	0.0%

CMS Performance Summary¹		
1. CMS downtime in reporting period due to:	<i>EQT's 0013, 0022, 0014 (hours)</i>	<i>All Other EQT's (hours)</i>
a. Monitor equipment malfunctions	0	0
b. Non-Monitor equipment malfunctions	0	0
c. Quality assurance calibration	3	0
d. Other known causes	0	0
e. Unknown causes	0	0
2. Total CMS Downtime	3	0
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.1 %	0.0 %

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

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

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

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

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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 10/22/20

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

Total source operating time in reporting period: EQT 0127-2,148 hours; EQT 0159-2,104 hours

Emissions Data Summary¹		
1. Duration of excess emissions in reporting period due to:	<i>EQT 0127 (hours)</i>	<i>EQT 0159 (hours)</i>
a. Startup/shutdown	0	0
b. Control equipment problems	0	0
c. Process problems	0	4
d. Other known causes	0	0
e. Unknown causes	0	0
2. Total duration of excess emission	0	4
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.0 %	0.2 %

CMS Performance Summary¹		
1. CMS downtime in reporting period due to:	<i>EQT 0127 (hours)</i>	<i>EQT 0159 (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.

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

(per 40 CFR 60.7(d))

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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 10/22/20

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

Total source operating time in reporting period: 388 hours

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

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

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

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

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

(per 40 CFR 60.7(d))

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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 10/20/20

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: 2,198 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	2
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	2
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.1 %

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

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

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

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

(per 40 CFR 60.7(d))

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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 10/29/20

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 0030-2,113 hours; EQT 0048-0 hours³

Emissions Data Summary¹		
	<i>EQT 0030 (hours)</i>	<i>EQT 0048 (hours)</i>
1. Duration of excess emissions in reporting period due to:		
a. Startup/shutdown	0	0
b. Control equipment problems	0	0
c. Process problems	9	0
d. Other known causes	0	0
e. Unknown causes	0	0
2. Total duration of excess emission	9	0
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.4 %	0.0 %

CMS Performance Summary¹		
	<i>EQT 0030 (hours)</i>	<i>EQT 0048 (hours)</i>
1. CMS downtime in reporting period due to:		
a. Monitor equipment malfunctions	0	0
b. Non-Monitor equipment malfunctions	0	0
c. Quality assurance calibration	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 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

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

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

Date of Latest CMS Certification or Audit: CGA on 11/3/20

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

Total source operating time in reporting period: 2,113 hours

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

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

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

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

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

(per 40 CFR 60.7(d))

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

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

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

Date of Latest CMS Certification or Audit: CGA on 12/30/20

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

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

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

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	1
d. Other known causes	10
e. Unknown causes	15
2. Total CMS Downtime	26
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	1.2 %

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

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

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

(per 40 CFR 60.7(d))

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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 10/29/20

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

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

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

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

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

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

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

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

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

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

Date of Latest CMS Certification or Audit: CGA on 10/15/20

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

Total source operating time in reporting period: 2,148 hours

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

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	1
d. Other known causes	3
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: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

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

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

Date of Latest CMS Certification or Audit: CGA on 11/23/20

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

Total source operating time in reporting period: 2,104 hours

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

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

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

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

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

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

Pollutant: **NO_x**

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

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

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

Date of Latest CMS Certification or Audit: CGA on 10/27/20

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

Total source operating time in reporting period: 2,205 hours

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

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

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

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

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

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

Pollutant: **NO_x**

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

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

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

Date of Latest CMS Certification or Audit: CGA on 11/24/20

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

Total source operating time in reporting period: 2,197 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 10/1/20 to 12/31/20

Date submitted: 1/30/21

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 10/21/20

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

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

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	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 10/1/20 to 12/31/20

Date submitted: 1/30/21

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 10/21/20

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

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

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

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

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

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

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

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

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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 10/21/20

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

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

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

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

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

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

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

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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 10/14/20

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

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

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	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	49
e. Unknown causes	0
2. Total CMS Downtime	49
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	2.2 %

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 10/1/20 to 12/31/20

Date submitted: 1/30/21

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 10/14/20

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

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

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

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

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

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

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

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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 10/14/20

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

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

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

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	33
e. Unknown causes	0
2. Total CMS Downtime	33
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	1.5 %

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

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

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

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

Pollutant: **Flow**

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

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

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

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

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: **Flow**

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

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

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

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

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: **Flow**

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

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

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

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

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

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

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

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

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

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

For all CMS covered in this report, no changes were made in the 4th Quarter 2020 to CMS, process, or controls.

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

Daniel Patnoad

Name

D. Patnoad

Signature

Env. Engineer

Title

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

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

Pollutant: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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.: Brimstone SGX-231(SO₂)/Rosemount Oxymitter 4000(O₂)

Date of Latest CMS Certification or Audit: CGA on 10/27/20

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

Total source operating time in reporting period: 1,964 hours

Ja EXCESS EMISSIONS						
Date	Start	End	Duration (hours)	Max 12-HRA (ppm)	Cause	Corrective Action
11/20/20	14:00		12	330	SO ₂ at 0% O ₂ greater than 250 ppm, 12-HRA, with combined SO ₂ emissions from the #2 and #3 SRU less than 500 lbs/day above allowable due to plugging in the TGT Quench Tower following a partial loss of electrical power on 11/18/20 that tripped the #3 SRU, upset multiple refinery units, and required all remaining acid gas feed to be directed to the #2 SRU. For causes and corrective actions, see the root cause and corrective action analysis for the flaring event dated 11/18/20 in Appendix B of this report.	
11/21/20		02:00				
11/21/20	06:00	21:00	15	497		
TOTAL			27			

Ja CMS PERFORMANCE¹						
Date	Start	End	Duration (hours)	Cause	Corrective Action	
10/27/20	13:00	14:00	1	SO ₂ and O ₂ Cylinder Gas Audits.	N/A	
12/11/20	10:00	17:00	7	Excessive SO ₂ analyzer drift following period of hot standby operation with TGT Bypassed. Analyzer offline for sample system cleaning.	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: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

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

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

Date of Latest CMS Certification or Audit: CGA on 11/24/20

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

Total source operating time in reporting period: 2,147 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	
11/17/20	06:00	14:00	8	Following a satisfactory calibration check, the blowback solenoid valve that purges the sample line failed to close and left the sample line pressurized with instrument air, preventing any sample from reaching the analyzers.	Valero blocked in instrument air to the blowback valve and restored sample flow. The analyzer was calibrated and returned to service.	
11/24/20	08:00	09:00	1	SO ₂ and O ₂ Cylinder Gas Audits.	N/A	
TOTAL			9			

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

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

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

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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 10/22/20

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

Total source operating time in reporting period: EQT 0127-2,148 hours; EQT 0159-2,204 hours

Ja EXCESS EMISSIONS – Both EQT's						
Date	Start	End	Duration (hours)	Max 3-HRA (ppm)	Cause	Corrective Action
11/18/20	19:00	23:00	4	300	H ₂ S greater than 162 ppm, 3-HRA, with SO ₂ emissions less than 500 lbs/day above allowable due to a partial loss of electrical power on 11/18/20 that tripped the #3 SRU, upset multiple refinery units, and required all remaining acid gas feed to be directed to the #2 SRU. For causes and corrective actions, see the root cause and corrective action analysis for the flaring event dated 11/18/20 in Appendix B of this report.	
TOTAL			4			

Ja CMS PERFORMANCE¹ – Both EQT's						
Date	Start	End	Duration (hours)	Cause	Corrective Action	
11/12/20	10:00	13:00	3	Analyzer offline for annual preventative maintenance.	Calibrated and returned to service.	
TOTAL			3			

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

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

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

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

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

Date of Latest CMS Certification or Audit: CGA on 10/15/20

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

Total source operating time in reporting period: 2,148 hours

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

Ja CMS PERFORMANCE ¹						
Date	Start	End	Duration (hours)	Cause	Corrective Action	
10/15/20	13:00	14:00	1	NO _x and O ₂ Cylinder Gas Audits.	N/A	
10/16/20	09:00	12:00	3	Analyzer offline to replace sample cooler/dryer.	Calibrated and returned to service.	
TOTAL			4			

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

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

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

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

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

Date of Latest CMS Certification or Audit: CGA on 1/23/20

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

Total source operating time in reporting period: 2,104 hours

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

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

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

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

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

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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 10/21/20

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

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

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

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

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

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

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

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

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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 10/21/20

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

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

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

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

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

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

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

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

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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 10/21/20

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

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

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

Ja CMS PERFORMANCE²						
Date	Start	End	Duration (hours)	Cause	Corrective Action	
11/30/20	08:00	09:00	1	Offline while performing CGA on BTU/H ₂ analyzer that shares the same sample system.	N/A	
TOTAL			1			

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

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

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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 10/14/20

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

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

Ja CMS PERFORMANCE¹					
Date	Start	End	Duration (hours)	Cause	Corrective Action
11/17/20	10:00		49	Analyzer readings suspect due to reduction or loss of sample flow from unknown cause.	Valero blew out sample lines and rebuilt the sample pump. The analyzer was calibrated and returned to service.
11/19/20		11:00			
TOTAL			49		

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 10/1/20 to 12/31/20

Date submitted: 1/30/21

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 10/14/20

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

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

Ja CMS PERFORMANCE 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: **Total Sulfur**

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

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 11/18/20

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

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

Ja CMS PERFORMANCE¹					
Date	Start	End	Duration (hours)	Cause	Corrective Action
11/18/20	02:00		33	Analyzer readings suspect due to reduction or loss of sample flow from unknown cause.	Valero blew out sample lines and rebuilt the sample pump. The analyzer was calibrated and returned to service.
11/19/20		11:00			
TOTAL			33		

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 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

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

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

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

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

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

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

Pollutant: **Flow**

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

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

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

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

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

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

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

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

Pollutant: **Flow**

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

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

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

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

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

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

DATA ASSESSMENT REPORT

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

Pollutant: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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.: Brimstone SGX-231(SO₂)/Rosemount Oxymitter 4000(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 <u>(low scale)</u>	SO ₂ #2 <u>(high scale)</u>	O ₂ #1 <u>(low scale)</u>	O ₂ #2 <u>(high scale)</u>
Date of Audit	10/27/20	10/27/20	10/27/20	10/27/20
Audit Gas Cylinder No.	SG9150051BAL	CC125741	CC483689	SG9152263BAL
Date of Audit Gas Cert.	5/27/16	5/27/16	5/23/16	5/23/16
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	124.9 ppmv	214.5 ppmv	5.99 vol %	10.05 vol %
CEM Response Value	113.3 ppmv	224.7 ppmv	6.20 vol %	10.20 vol %
Accuracy	9.3%	4.8%	3.5%	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 10/1/20 to 12/31/20

Date submitted: 1/30/21

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 <u>(low scale)</u>	SO ₂ #2 <u>(high scale)</u>	O ₂ #1 <u>(low scale)</u>	O ₂ #2 <u>(high scale)</u>
Date of Audit	11/24/20	11/24/20	11/24/20	11/24/20
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	132.7 ppmv	286.1 ppmv	6.02 vol %	10.07 vol %
Accuracy	5.9%	3.9%	0.5%	0.9%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

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

CEM Sampling Location: Area 1 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	10/20/20	10/20/20
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)	73.7	159.7
Accuracy	2.5%	2.4%
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 and Ja (Benzene Recovery Unit Reboiler Subject to Ja)

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	10/22/20	10/22/20
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)	75.5	174.3
Accuracy	2.1%	1.9%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

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

CEM Sampling Location: Area 4 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1	H ₂ S #2
	<u>(low scale)</u>	<u>(high scale)</u>
Date of Audit	10/22/20	10/22/20
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)	74.0	162.7
Accuracy	2.1%	1.7%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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	10/20/20	10/20/20
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)	76.3	165.0
Accuracy	1.3%	0.5%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 4661

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

CEM Sampling Location: Area 6 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	10/29/20	10/29/20
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)	77.7	179.0
Accuracy	3.6%	1.9%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

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

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

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

CEM Sampling Location: Boiler B-5

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	NO _x #1 <u>(low scale)</u>	NO _x #2 <u>(high scale)</u>	O ₂ #1 <u>(low scale)</u>	O ₂ #2 <u>(high scale)</u>
Date of Audit	11/3/20	11/3/20	11/3/20	11/3/20
Audit Gas Cylinder No.	LL67375	LL64747	CC483685	LL167062
Date of Audit Gas Cert.	10/4/19	5/3/16	5/23/16	1/28/14
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	25.2 ppmv	54.5 ppmv	6.00 vol %	10.01 vol %
CEM Response Value	27.9 ppmv	56.5 ppmv	6.24 vol %	10.23 vol %
Accuracy	10.5%	3.7%	4.0%	2.2%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

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

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

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

CEM Sampling Location: Boiler B-6

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	NO _x #1 <u>(low scale)</u>	NO _x #2 <u>(high scale)</u>	O ₂ #1 <u>(low scale)</u>	O ₂ #2 <u>(high scale)</u>
Date of Audit	12/30/20	12/30/20	12/30/20	12/30/20
Audit Gas Cylinder No.	BLM003457	LL64747	CC483685	LL167062
Date of Audit Gas Cert.	10/4/19	5/3/16	5/23/16	1/28/14
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 %	10.01 vol %
CEM Response Value	26.7 ppmv	55.3 ppmv	6.02 vol %	10.01 vol %
Accuracy	5.5%	1.5%	0.3%	0.0%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

- Dates: 11/10/20
- Number of Days 0.42 (10 hours)

- B. Corrective Actions: On 11/10/20, the NO_x analyzer was out of control because the zero drift exceeded 2 times the Appendix B limit for five consecutive days. On 11/3/20, while setting up for a CGA, the analyzer malfunctioned, leaving the local user interface unreadable and inoperable and the O₂ reading erratically. The O₂ began reading normally a few hours later, but the local user interface remained inoperable until the manufacturer replaced the system control board and thermal fuse on 11/10/20. While the local interface was inoperable, Valero was unable to adjust for analyzer drift. The O₂ continues have periods where it reads erratically. Valero has been unable to determine the cause.

DATA ASSESSMENT REPORT

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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 <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	10/29/20	10/29/20	10/29/20	10/29/20
Audit Gas Cylinder No.	SG9167966	CC89303	LL269	LL168197
Date of Audit Gas Cert.	5/31/16	5/31/16	4/26/16	4/25/16
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	126.9 ppmv	270.5 ppmv	6.03 vol %	10.10 vol %
CEM Response Value	144.7 ppmv	288.7 ppmv	5.57 vol %	9.47 vol %
Accuracy	14.0%	6.7%	7.6%	6.2%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

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

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

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

CEM Sampling Location: Benzene Recovery Unit Reboiler

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

<u>CGA</u>	<u>NO_x #1 (low scale)</u>	<u>NO_x #2 (high scale)</u>	<u>O₂ #1 (low scale)</u>	<u>O₂ #2 (high scale)</u>
Date of Audit	10/15/20	10/15/20	10/15/20	10/15/20
Audit Gas Cylinder No.	BLM003457	CC307733	CC483658	CC87078
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	25.3 ppmv	55.8 ppmv	5.96 vol %	9.94 vol %
CEM Response Value	25.6 ppmv	56.1 ppmv	5.63 vol %	9.57 vol %
Accuracy	1.2%	0.5%	5.5%	3.7%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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)

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	11/23/20	11/23/20	11/23/20	11/23/20
Audit Gas Cylinder No.	LL67375	CC416948	CC483649	CC148318
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	55.5 ppmv	6.00 vol %	9.99 vol %
CEM Response Value	23.7 ppmv	52.0 ppmv	6.51 vol %	10.40 vol %
Accuracy	6.1%	6.3%	8.5%	4.1%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **NO_x**

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

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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	10/27/20	10/27/20	10/27/20	10/27/20
Audit Gas Cylinder No.	BLM000328	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	27.3 ppmv	59.9 ppmv	5.71 vol %	9.54 vol %
Accuracy	8.5%	8.0%	4.7%	4.3%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **NO_x**

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

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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: MDH Product and Fractionator Heaters (EPN 2-92, EQT 0033)

CEM Sampling Location: MDH Product and Fractionator Heaters

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

<u>CGA</u>	<u>NO_x #1 (low scale)</u>	<u>NO_x #2 (high scale)</u>	<u>O₂ #1 (low scale)</u>	<u>O₂ #2 (high scale)</u>
Date of Audit	11/24/20	11/24/20	11/24/20	11/24/20
Audit Gas Cylinder No.	BLM000328	BLM002251	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	55.0 ppmv	6.02 vol %	10.03 vol %
CEM Response Value	23.5 ppmv	53.5 ppmv	6.07 vol %	10.00 vol %
Accuracy	6.7%	2.8%	0.8%	0.3%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

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

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

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	10/21/20	10/21/20
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	88.0 ppmv	179.3 ppmv
Accuracy	10.7%	3.8%
Standard	<15%	<15%

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

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	10/21/20	10/21/20
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 (ppmv)	79.5 ppmv	172.7 ppmv
CEM Response Value (ppmv)	82.7 ppmv	180.0 ppmv
Accuracy	4.0%	4.2%
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: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

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

Monitor Manufacturer and Model No.: Ametek 5100

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

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

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	10/21/20	10/21/20
Audit Gas Cylinder No.	CC416499	XC012872B
Date of Audit Gas Cert.	12/10/19	12/16/19
Type of Certification	Certified Gas ¹	Certified Gas ¹
Certified Audit Value	79.5 ppmv	172.7 ppmv
CEM Response Value	76.3 ppmv	169.0 ppmv
Accuracy	4.0%	2.1%
Standard	<15%	<15%

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

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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	10/14/20	10/14/20
Audit Gas Cylinder No.	CC305316	CC506391
Date of Audit Gas Cert.	5/27/16	1/3/20
Type of Certification	EPA Protocol 1	Primary Standard 1
Certified Audit Value (ppmv)	1013.0 ppmv	10070.0 ppmv
CEM Response Value (ppmv)	1024.4 ppmv	10046.7 ppmv
Accuracy	1.1%	0.2%
Standard	<15%	<15%

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

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

Pollutant: **Total Sulfur**

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

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

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	10/14/20	10/14/20
Audit Gas Cylinder No.	CC305316	CC506391
Date of Audit Gas Cert.	5/27/16	1/3/20
Type of Certification	EPA Protocol 1	Primary Standard 1
Certified Audit Value (ppmv)	1013.0 ppmv	10070.0 ppmv
CEM Response Value (ppmv)	1037.2 ppmv	10176.7 ppmv
Accuracy	2.4%	1.1%
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

Pollutant: **Total Sulfur**

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

Reporting period dates: From 10/1/20 to 12/31/20

Date submitted: 1/30/21

Company: Valero Refining - Meraux LLC

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

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

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

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

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

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	10/14/20	10/14/20
Audit Gas Cylinder No.	CC305316	CC506391
Date of Audit Gas Cert.	5/27/16	1/3/20
Type of Certification	EPA Protocol 1	Primary Standard1
Certified Audit Value	1013.0 ppmv	10070.0 ppmv
CEM Response Value	1024.4 ppmv	10014.7 ppmv
Accuracy	1.1%	0.5%
Standard	<15%	<15%

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

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

Appendix A

Ja Root Cause and Corrective Action Analysis

Subpart Ja Root Cause / Corrective Action AnalysisIncident Number: 372988*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: 6/26/18
 Date Analysis Completed: 8/9/18

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

On June 26, 2018 at approximately 10:55 AM, the Hydrocracker Unit experienced an automatic safety shutdown following an unplanned trip of a Recycle Gas Compressor (RGC). A controlled depressurization to the North Flare immediately followed causing the release of SO2 emissions greater than 500 lbs and volume greater than 500,000 SCF in a 24 hour period. The gas flared during this depressurization was primarily hydrogen with hydrogen sulfide (H2S) also present in low concentration.

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

	North Flare
Date/Time discharge was first identified	<u>6/26/18 10:56</u>
Date/Time discharge had ceased	<u>6/26/18 16:50</u>
Duration of Discharge (Calculated)	<u>5.9</u> 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 the maximum extent possible to minimize the volume and SO2 emissions of this discharge.

(4.) (60.108a(c)(6)(xi))**Necessity of RC/CAA: Determine and state whether a RC/CAA is necessary:**

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

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

(5.) (60.108a(c)(6)(ix))**Root Cause Analysis: Describe in detail the Root Cause(s) of the Incident, to the extent determinable:**

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

The RGC shut down on loss of the inboard and outboard seals after the compressor experienced elevated vibrations. The root cause of this incident was high pH liquid carry over into the compressor which led to mechanical failure of compressor components.

(6.) (60.108a(c)(6)(ix))**Corrective Action Analysis: Include a description of the recommended corrective action(s) or an explanation of why corrective action is not necessary.**

Is corrective action required? Yes (Yes/No)

- 1) *Run the Water Wash to the Recycle Gas Scrubber.*
- 2) *Evaluate installing seals capable of handling high pH material.*
- 3) *Repair damaged compressor components.*
- 4) *Evaluate installing a flow meter on the motive steam to the RGC to help troubleshoot and evaluate performance.*

(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) *Run the Water Wash to the Recycle Gas Scrubber.*

Commencement Date: 8/9/18

Completed Date: 8/9/18

2) *Evaluate installing seals capable of handling high pH material.*

Commencement Date: 8/9/18

Completed Date: 12/12/18

3) *Repair damaged compressor components.*

Commencement Date: 8/9/18

Completed Date: 8/9/18

4) *Evaluate installing a flow meter on the motive steam to the RGC to help troubleshoot and evaluate performance.*

Commencement Date: 8/9/18

Completed Date: 12/11/18

5) *Install a flow meter on the motive steam to the RGC.*

Commencement Date: 12/11/18

Estimated Completion Date: 7/26/22

Estimated completion date extended to next Hydrocracker outage.

(8.) North and South Flares

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

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

		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	Last hour of 24-hr Period	24-hr cumulative volume of flared gas above Baseline	TRS or H2S ppm (24-hr average, flow-weighted)	24-hr cumulative SO2	24-hr cumulative reduced sulfur
		SCF	ppmv	lbs	lbs as H2S
6/25/18 11:00	6/26/18 10:00	59,173	83	19.4	0.1
6/25/18 12:00	6/26/18 11:00	2,682,155	135	560.3	3.0
6/25/18 13:00	6/26/18 12:00	4,101,734	139	579.3	3.1
6/25/18 14:00	6/26/18 13:00	4,568,472	154	607.4	3.3
6/25/18 15:00	6/26/18 14:00	4,664,301	204	626.5	3.4
6/25/18 16:00	6/26/18 15:00	4,753,300	233	636.7	3.4
6/25/18 17:00	6/26/18 16:00	4,778,658	252	638.5	3.4
6/25/18 18:00	6/26/18 17:00	4,778,658	252	638.5	3.4
6/25/18 19:00	6/26/18 18:00	4,778,658	252	638.5	3.4
6/25/18 20:00	6/26/18 19:00	4,778,658	252	638.5	3.4
6/25/18 21:00	6/26/18 20:00	4,778,658	252	638.5	3.4
6/25/18 22:00	6/26/18 21:00	4,778,658	252	638.5	3.4
6/25/18 23:00	6/26/18 22:00	4,778,658	252	638.5	3.4
6/26/18 0:00	6/26/18 23:00	4,778,658	252	638.5	3.4
6/26/18 1:00	6/27/18 0:00	4,801,300	299	642.8	3.5
6/26/18 2:00	6/27/18 1:00	4,801,300	299	642.8	3.5
6/26/18 3:00	6/27/18 2:00	4,801,300	299	642.8	3.5
6/26/18 4:00	6/27/18 3:00	4,801,300	299	642.8	3.5
6/26/18 5:00	6/27/18 4:00	4,801,300	299	642.8	3.5
6/26/18 6:00	6/27/18 5:00	4,801,300	299	642.8	3.5
6/26/18 7:00	6/27/18 6:00	4,801,300	299	642.8	3.5
6/26/18 8:00	6/27/18 7:00	4,801,300	299	642.8	3.5
6/26/18 9:00	6/27/18 8:00	4,801,300	299	642.8	3.5
6/26/18 10:00	6/27/18 9:00	4,801,300	299	642.8	3.5
6/26/18 11:00	6/27/18 10:00	4,742,126	216	623.3	3.3
6/26/18 12:00	6/27/18 11:00	2,119,145	164	82.5	0.4
6/26/18 13:00	6/27/18 12:00	699,566	160	63.5	0.3
6/26/18 14:00	6/27/18 13:00	232,842	154	35.4	0.2

Subpart Ja Root Cause / Corrective Action AnalysisIncident Number: **431400***The information contained below satisfies the requirements of the NSPS Subpart Ja 60.108a(c)(6).*

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

Date of Event: 4/9/20
 Date Analysis Completed: 5/18/20

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

On April 10, 2020 at approximately 00:45, the Hydrocracker Unit experienced a loss of containment, resulting in a vapor release and ignition, followed by a fire. Valero immediately shut down the unit, per written operating procedures.

Valero has determined the root causes. At approximately 11:40 PM on April 9th, a brief, but intense rainstorm passed over the refinery. Shortly afterwards, a vessel in the Hydrocracker Unit began relieving to the North Flare via a Pressure Safety Valve (PSV). It was determined that the elevated pressure had subsided, but the PSV had not fully reseated. A plan was developed to briefly close an inlet valve at the PSV to reseal the PSV. This plan was approved by Operations management and documented through Meraux's Process Safety Management program.

However, due to concerns regarding access and egress at the targeted valve, several operators changed the plan in the field, instead opting for the closure of the outlet valve of the PSV. The outlet valve is intended to isolate the PSV from the downstream flare gas header (low pressure system). It is not designed for the upstream process side of the PSV (high pressure system). When the decision was made to change the plan, the hazards introduced by using the outlet valve were not identified or discussed. It was not recognized that additional review and approval by Operations management was necessary to authorize this change. A review of the new plan would have revealed that the closure of the outlet valve only would result in it being exposed to pressure in excess of its design. When the outlet valve was closed, it immediately failed, resulting in a release of a pressurized hydrogen/hydrocarbon mix which quickly ignited.

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

Date and Time the discharge was first identified 4/9/20 23:39
 Date/Time the discharge had ceased 4/10/20 3:58
 Duration of Discharge (Calculated) 4.3 hrs.

(3.) (60.108a(c)(6)(viii))**The steps taken to limit the emissions during the discharge:**

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

(4.) (60.108a(c)(6)(xi))**Necessity of RC/CAA: Determine and state whether a RC/CAA is necessary:**

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

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

(5.) (60.108a(c)(6)(ix))**Root Cause Analysis: Describe in detail the Root Cause(s) of the Incident, to the extent determinable:**

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

The root cause of this incident was the closing of the downstream block valve for the discharging PSV. This led to the containment failure and required the emergency depressurization of the Hydrocracker Unit.

(6.)

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

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

1. *Update the PSM "Critical Safety Device Disabling Procedure" to emphasize the appropriate operation of PSV inlet and outlet valves.*
2. *Revise the "PSV Isolation Approval Form" to account for any changes made to the procedure and to highlight potential hazards.*
3. *Train all affected personnel on the updates, and incorporate in Basic Operator Training materials.*

(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) *Update the PSM "Critical Safety Device Disabling Procedure" to emphasize the appropriate operation of PSV inlet and outlet valves.*

Commencement Date: 5/18/20

Estimated Completion Date: 2/28/21

Due date extended to allow for further review.

- 2) *Revise the "PSV Isolation Approval Form" to account for any changes made to the procedure and to highlight potential hazards. Timing of this may be affected by a company-wide effort to update the performance standard, which could affect wording on the form.*

Commencement Date: 5/18/20

Estimated Completion Date: 2/28/21

Due date extended to allow for further review.

- 3) *Train all affected personnel on the updates, and incorporate in Basic Operator Training materials.*

Commencement Date: 5/18/20

Completed: 11/24/20

(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
4/8/20 23:00	4/9/20 22:00	54,143	15	0.6	0.0
4/9/20 0:00	4/9/20 23:00	87,240	1864	12.2	0.1
4/9/20 1:00	4/10/20 0:00	238,978	2588	78.8	0.4
4/9/20 2:00	4/10/20 1:00	Flare monitoring data lost due to damage to the Distributed Control System from the fire. Estimated flared gas volume is 1,000,000 SCF and estimated SO2 and reduced sulfur emissions were 3000 lbs and 16 lbs, respectively.			
4/9/20 3:00	4/10/20 2:00				
4/9/20 4:00	4/10/20 3:00				
4/9/20 5:00	4/10/20 4:00				
4/9/20 6:00	4/10/20 5:00				
4/9/20 7:00	4/10/20 6:00				
4/9/20 8:00	4/10/20 7:00				
4/9/20 9:00	4/10/20 8:00				
4/9/20 10:00	4/10/20 9:00				
4/9/20 11:00	4/10/20 10:00				
4/9/20 12:00	4/10/20 11:00	195,679	265	79.0	0.4
4/9/20 13:00	4/10/20 12:00	195,775	251	79.2	0.4

Subpart Ja Root Cause / Corrective Action AnalysisIncident Number: **434898***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 and SO2)
 Emissions Source(s): North Flare (EPN 20-72, EQT 0035)
South Flare (EPN 3-77, EQT 0049)

Date of Event: 7/24/20
 Date Analysis Completed: 9/4/20

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

During inclement weather on 7/24/20 at approximately 13:40, a lightning arrestor on an electrical power transformer failed and caused the loss of power to several electrical loads in the refinery. The resulting unit upsets led to excess emissions of SO2 from the refinery flares and the #2 Sulfur Recovery Unit (SRU). The SO2 emissions from the refinery flares was greater than 500 lbs in a 24 hour period, but the SO2 emissions from the refinery SRU's was less than 500 lbs above allowable in a 24 hour period.

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

Date and Time the discharge was first identified 7/24/20 13:40
 Date/Time the discharge had ceased 7/24/20 23:00
 Duration of Discharge (Calculated) 9.3 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 and SO2 emissions of this discharge.

(4.) (60.108a(c)(6)(xi))**Necessity of RC/CAA: Determine and state whether a RC/CAA is necessary:**

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

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

(5.) (60.108a(c)(6)(ix))**Root Cause Analysis: Describe in detail the Root Cause(s) of the Incident, to the extent determinable:**

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

Valero investigated this incident and determined that the lightning arrestor likely failed due to age and an inadequate inspection and preventative maintenance program. Valero also determined that the lightning arrestor was of an older type that is not the type recommended by Valero policy. Furthermore, Valero policies do not require lightning arrestors on this particular transformer because it is not connected to overhead lines.

(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) Complete a site-wide survey of lightning arrestors and develop a plan to remove unnecessary lightning arrestors during the next planned electrical outage. If lightning arrestors are found to be the older design, develop a plan to replace them with the recommended type.

2) Review and revise as necessary the preventative maintenance policy requirements for lightning arrestors.

(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) Complete a site-wide survey of lightning arrestors and develop a plan to remove unnecessary lightning arrestors during the next planned electrical outage. If lightning arrestors are found to be the older design, develop a plan to replace them with the recommended type.

Commencement Date: 9/4/20

Completed: 12/1/20

2) Review and revise as necessary the preventative maintenance policy requirements for lighting arrestors.

Commencement Date: 9/4/20

Completed: 12/29/20

(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
7/23/20 13:00	7/24/20 12:00	106,032	8	0.6	0.0
7/23/20 14:00	7/24/20 13:00	162,075	2566	26.3	0.1
7/23/20 15:00	7/24/20 14:00	841,585	2068	259.3	1.4
7/23/20 16:00	7/24/20 15:00	1,160,999	4302	489.1	2.6
7/23/20 17:00	7/24/20 16:00	1,663,465	2255	677.6	3.6
7/23/20 18:00	7/24/20 17:00	2,359,815	738	762.8	4.1
7/23/20 19:00	7/24/20 18:00	2,920,585	1027	858.5	4.6
7/23/20 20:00	7/24/20 19:00	3,527,117	54	863.9	4.6
7/23/20 21:00	7/24/20 20:00	3,629,483	51	864.8	4.6
7/23/20 22:00	7/24/20 21:00	3,629,756	124	864.8	4.6
7/23/20 23:00	7/24/20 22:00	3,646,241	381	866.2	4.7
7/24/20 0:00	7/24/20 23:00	3,646,016	150	866.3	4.7
7/24/20 1:00	7/25/20 0:00	3,645,788	154	866.4	4.7
7/24/20 2:00	7/25/20 1:00	3,645,556	171	866.5	4.7
7/24/20 3:00	7/25/20 2:00	3,645,346	142	866.6	4.7
7/24/20 4:00	7/25/20 3:00	3,645,115	139	866.6	4.7
7/24/20 5:00	7/25/20 4:00	3,644,886	140	866.7	4.7
7/24/20 6:00	7/25/20 5:00	3,644,663	154	866.8	4.7
7/24/20 7:00	7/25/20 6:00	3,644,158	172	866.9	4.7
7/24/20 8:00	7/25/20 7:00	3,642,564	170	867.0	4.7
7/24/20 9:00	7/25/20 8:00	3,634,926	158	867.1	4.7
7/24/20 10:00	7/25/20 9:00	3,611,767	155	867.2	4.7
7/24/20 11:00	7/25/20 10:00	3,588,730	172	867.3	4.7
7/24/20 12:00	7/25/20 11:00	3,565,651	167	867.3	4.7
7/24/20 13:00	7/25/20 12:00	3,542,447	151	867.4	4.7
7/24/20 14:00	7/25/20 13:00	3,486,196	132	841.8	4.5
7/24/20 15:00	7/25/20 14:00	2,806,461	105	608.8	3.3
7/24/20 16:00	7/25/20 15:00	2,486,821	96	379.0	2.0
7/24/20 17:00	7/25/20 16:00	1,984,116	84	190.6	1.0
7/24/20 18:00	7/25/20 17:00	1,287,530	73	105.5	0.6
7/24/20 19:00	7/25/20 18:00	726,519	64	9.8	0.1
7/24/20 20:00	7/25/20 19:00	119,761	61	4.4	0.0

Subpart Ja Root Cause / Corrective Action Analysis

Incident Number: N/A

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

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

Date of Event: 11/10/20
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 for the planned replacement of 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 11/10/20 7:41
Date/Time the discharge had ceased 11/11/20 17:48
Duration of Discharge (Calculated) 34.1 hrs.

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

The steps taken to limit the emissions during the discharge:

Valero followed its Flare Minimization Plan and Operations Procedures to minimize the volume 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? Yes (Yes/No)
Was the flare management plan followed? Yes (Yes/No/N/A)
Is the event exempt from a RC/CCA based on the answers above? Yes (Yes/No)
- If yes, skip section 5-7.

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

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

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

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

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

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

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

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

N/A

(8.)					
The measured or calculated cumulative quantity of gas discharged over the discharge duration.					
<i>Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.</i>					
		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	Last hour of 24-hr Period	24-hr cumulative volume of flared gas above Baseline	TRS or H2S ppm (24-hr average, flow-weighted)	24-hr cumulative SO2	24-hr cumulative reduced sulfur
		SCF	ppmv	lbs	lbs as H2S
11/9/20 7:00	11/10/20 6:00	75,761	13	0.4	0.0
11/9/20 8:00	11/10/20 7:00	113,862	51	0.8	0.0
11/9/20 9:00	11/10/20 8:00	171,204	47	1.3	0.0
11/9/20 10:00	11/10/20 9:00	171,809	16	1.3	0.0
11/9/20 11:00	11/10/20 10:00	167,362	18	1.3	0.0
11/9/20 12:00	11/10/20 11:00	162,905	19	1.3	0.0
11/9/20 13:00	11/10/20 12:00	158,460	20	1.3	0.0
11/9/20 14:00	11/10/20 13:00	197,466	65	1.8	0.0
11/9/20 15:00	11/10/20 14:00	269,152	60	2.6	0.0
11/9/20 16:00	11/10/20 15:00	334,109	70	3.4	0.0
11/9/20 17:00	11/10/20 16:00	413,236	57	4.2	0.0
11/9/20 18:00	11/10/20 17:00	478,350	61	5.0	0.0
11/9/20 19:00	11/10/20 18:00	566,970	53	5.8	0.0
11/9/20 20:00	11/10/20 19:00	687,806	45	6.7	0.0
11/9/20 21:00	11/10/20 20:00	880,278	65	8.8	0.0
11/9/20 22:00	11/10/20 21:00	1,071,138	155	13.9	0.1
11/9/20 23:00	11/10/20 22:00	1,256,561	371	25.5	0.1
11/10/20 0:00	11/10/20 23:00	1,518,312	261	37.0	0.2
11/10/20 1:00	11/11/20 0:00	1,777,556	189	45.2	0.2
11/10/20 2:00	11/11/20 1:00	2,043,271	97	49.5	0.3
11/10/20 3:00	11/11/20 2:00	2,274,674	84	52.8	0.3
11/10/20 4:00	11/11/20 3:00	2,500,119	83	55.9	0.3
11/10/20 5:00	11/11/20 4:00	2,681,100	96	58.8	0.3
11/10/20 6:00	11/11/20 5:00	2,823,438	111	61.5	0.3
11/10/20 7:00	11/11/20 6:00	3,024,799	88	64.5	0.3
11/10/20 8:00	11/11/20 7:00	3,227,350	57	66.4	0.4
11/10/20 9:00	11/11/20 8:00	3,438,778	39	67.7	0.4
11/10/20 10:00	11/11/20 9:00	3,690,501	33	69.1	0.4
11/10/20 11:00	11/11/20 10:00	3,762,984	27	69.4	0.4
11/10/20 12:00	11/11/20 11:00	3,785,353	14	69.5	0.4
11/10/20 13:00	11/11/20 12:00	3,807,580	13	69.5	0.4
11/10/20 14:00	11/11/20 13:00	3,786,480	14	69.1	0.4
11/10/20 15:00	11/11/20 14:00	3,732,907	15	68.3	0.4
11/10/20 16:00	11/11/20 15:00	3,686,886	38	67.6	0.4
11/10/20 17:00	11/11/20 16:00	3,641,650	49	67.2	0.4
11/10/20 18:00	11/11/20 17:00	3,598,914	35	66.6	0.4
11/10/20 19:00	11/11/20 18:00	3,516,044	15	65.8	0.4
11/10/20 20:00	11/11/20 19:00	3,384,102	15	64.8	0.3
11/10/20 21:00	11/11/20 20:00	3,186,517	14	62.6	0.3
11/10/20 22:00	11/11/20 21:00	2,994,448	10	57.5	0.3
11/10/20 23:00	11/11/20 22:00	2,823,823	5	45.9	0.2
11/11/20 0:00	11/11/20 23:00	2,562,072	11	34.5	0.2
11/11/20 1:00	11/12/20 0:00	2,319,650	12	26.3	0.1
11/11/20 2:00	11/12/20 1:00	2,053,936	16	22.0	0.1
11/11/20 3:00	11/12/20 2:00	1,822,533	15	18.8	0.1
11/11/20 4:00	11/12/20 3:00	1,597,087	15	15.6	0.1
11/11/20 5:00	11/12/20 4:00	1,427,450	15	12.7	0.1
11/11/20 6:00	11/12/20 5:00	1,285,112	15	10.1	0.1

(8.)

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

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

		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	Last hour of 24-hr Period	24-hr cumulative volume of flared gas above Baseline	TRS or H2S ppm (24-hr average, flow-weighted)	24-hr cumulative SO2	24-hr cumulative reduced sulfur
		SCF	ppmv	lbs	lbs as H2S
11/11/20 7:00	11/12/20 6:00	1,083,751	15	7.1	0.0
11/11/20 8:00	11/12/20 7:00	838,651	14	4.8	0.0
11/11/20 9:00	11/12/20 8:00	565,698	14	3.0	0.0
11/11/20 10:00	11/12/20 9:00	313,375	11	1.6	0.0

Subpart Ja Root Cause / Corrective Action AnalysisIncident Number: 438635*The information contained below satisfies the requirements of the NSPS Subpart Ja 60.108a(c)(6).*

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

Date of Event: 11/18/20
 Date Analysis Completed: 12/22/20

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

On November 18, 2020 at approximately 18:03, Valero experienced a partial power interruption due to an electrical failure at a third-party substation providing power to the refinery. The resulting unit upsets led to excess emissions of SO2 from the refinery flares and the #2 Sulfur Recovery Unit (SRU). The SO2 emissions from the refinery flares was greater than 500 lbs in a 24 hour period, but the SO2 emissions from the refinery SRU's was less than 500 lbs above allowable in a 24 hour period.

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

Date and Time the discharge was first identified 11/18/20 18:03
 Date/Time the discharge had ceased 11/21/20 9:26
 Duration of Discharge (Calculated) 63.4 hrs.

(3.) (60.108a(c)(6)(viii))**The steps taken to limit the emissions during the discharge:**

Valero followed its Flare Minimization Plan and Operations Procedures to minimize the volume and SO2 emissions of this discharge.

(4.) (60.108a(c)(6)(xi))**Necessity of RC/CAA: Determine and state whether a RC/CAA is necessary:**

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

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

(5.) (60.108a(c)(6)(ix))**Root Cause Analysis: Describe in detail the Root Cause(s) of the Incident, to the extent determinable:**

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

Valero investigated this incident and determined that a raccoon shorted equipment at the neighboring Entergy substation

(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) *Coordinate review with Entergy for installation of animal-deterrent electric fencing around the Entergy Substation in Meraux.*
- 2) *Coordinate with Entergy to add improved animal resistant technology, such as molded insulation covers, at the Entergy substation in Meraux.*

(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) *Coordinate review with Entergy for installation of animal-deterrent electric fencing around the Entergy Substation in Meraux.*

Commencement Date: 12/22/20

Estimated Completion Date: 6/29/21

2) *Coordinate with Entergy to add improved animal resistant technology, such as molded insulation covers, at the Entergy substation in Meraux.*

Commencement Date: 12/22/20

Estimated Completion Date: 3/15/22

(8.)

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

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

		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	Last hour of 24-hr Period	24-hr cumulative volume of flared gas above Baseline	TRS or H2S ppm (24-hr average, flow-weighted)	24-hr cumulative SO2	24-hr cumulative reduced sulfur
		SCF	ppmv	lbs	lbs as H2S
11/17/20 18:00	11/18/20 17:00	111,807	11	0.5	0.0
11/17/20 19:00	11/18/20 18:00	647,566	247	22.7	0.1
11/17/20 20:00	11/18/20 19:00	885,507	287	34.3	0.2
11/17/20 21:00	11/18/20 20:00	1,085,114	416	48.6	0.3
11/17/20 22:00	11/18/20 21:00	1,561,695	119	58.1	0.3
11/17/20 23:00	11/18/20 22:00	2,081,184	108	67.5	0.4
11/18/20 0:00	11/18/20 23:00	2,412,929	83	72.1	0.4
11/18/20 1:00	11/19/20 0:00	2,883,655	18	73.5	0.4
11/18/20 2:00	11/19/20 1:00	3,409,482	13	74.6	0.4
11/18/20 3:00	11/19/20 2:00	3,898,318	32	77.2	0.4
11/18/20 4:00	11/19/20 3:00	4,202,975	260	90.6	0.5
11/18/20 5:00	11/19/20 4:00	4,386,019	214	97.3	0.5
11/18/20 6:00	11/19/20 5:00	4,661,267	62	100.2	0.5
11/18/20 7:00	11/19/20 6:00	4,984,646	33	102.0	0.5
11/18/20 8:00	11/19/20 7:00	5,309,505	22	103.2	0.6
11/18/20 9:00	11/19/20 8:00	5,662,529	15	104.1	0.6
11/18/20 10:00	11/19/20 9:00	7,751,708	1078	476.5	2.6
11/18/20 11:00	11/19/20 10:00	8,381,083	22	478.7	2.6
11/18/20 12:00	11/19/20 11:00	8,967,471	33	482.0	2.6
11/18/20 13:00	11/19/20 12:00	9,549,837	43	486.2	2.6
11/18/20 14:00	11/19/20 13:00	10,043,580	35	489.1	2.6
11/18/20 15:00	11/19/20 14:00	10,667,571	26	491.7	2.6
11/18/20 16:00	11/19/20 15:00	10,987,509	20	492.8	2.6
11/18/20 17:00	11/19/20 16:00	11,225,570	16	493.5	2.7
11/18/20 18:00	11/19/20 17:00	11,426,712	17	494.1	2.7
11/18/20 19:00	11/19/20 18:00	11,078,009	18	472.5	2.5
11/18/20 20:00	11/19/20 19:00	11,035,449	18	461.4	2.5
11/18/20 21:00	11/19/20 20:00	11,026,102	16	447.6	2.4
11/18/20 22:00	11/19/20 21:00	10,732,962	15	438.6	2.4
11/18/20 23:00	11/19/20 22:00	10,418,519	15	429.7	2.3
11/19/20 0:00	11/19/20 23:00	10,287,215	14	425.5	2.3
11/19/20 1:00	11/20/20 0:00	10,017,772	13	424.6	2.3
11/19/20 2:00	11/20/20 1:00	9,930,147	9	424.1	2.3
11/19/20 3:00	11/20/20 2:00	9,558,754	18	421.8	2.3
11/19/20 4:00	11/20/20 3:00	9,438,882	13	408.8	2.2
11/19/20 5:00	11/20/20 4:00	9,498,396	10	402.5	2.2
11/19/20 6:00	11/20/20 5:00	9,667,321	25	401.5	2.2
11/19/20 7:00	11/20/20 6:00	9,606,565	21	400.6	2.2
11/19/20 8:00	11/20/20 7:00	9,478,708	12	399.8	2.1
11/19/20 9:00	11/20/20 8:00	9,473,301	9	399.4	2.1
11/19/20 10:00	11/20/20 9:00	7,627,554	26	28.1	0.2
11/19/20 11:00	11/20/20 10:00	7,429,240	29	27.9	0.1
11/19/20 12:00	11/20/20 11:00	7,343,835	0	24.7	0.1
11/19/20 13:00	11/20/20 12:00	7,088,533	2	20.5	0.1
11/19/20 14:00	11/20/20 13:00	6,740,438	5	17.8	0.1
11/19/20 15:00	11/20/20 14:00	6,354,405	5	15.3	0.1
11/19/20 16:00	11/20/20 15:00	6,178,156	5	14.3	0.1
11/19/20 17:00	11/20/20 16:00	6,091,682	6	13.8	0.1
11/19/20 18:00	11/20/20 17:00	6,119,669	94	16.9	0.1

(8.)

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

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

		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	Last hour of 24-hr Period	24-hr cumulative volume of flared gas above Baseline	TRS or H2S ppm (24-hr average, flow-weighted)	24-hr cumulative SO2	24-hr cumulative reduced sulfur
		SCF	ppmv	lbs	lbs as H2S
11/19/20 19:00	11/20/20 18:00	6,659,549	186	38.9	0.2
11/19/20 20:00	11/20/20 19:00	7,205,158	7	39.1	0.2
11/19/20 21:00	11/20/20 20:00	7,742,484	2	38.8	0.2
11/19/20 22:00	11/20/20 21:00	8,282,496	52	44.7	0.2
11/19/20 23:00	11/20/20 22:00	8,753,311	71	52.2	0.3
11/20/20 0:00	11/20/20 23:00	9,078,722	28	54.1	0.3
11/20/20 1:00	11/21/20 0:00	9,511,466	99	64.2	0.3
11/20/20 2:00	11/21/20 1:00	9,751,591	625	134.3	0.7
11/20/20 3:00	11/21/20 2:00	10,167,792	931	217.2	1.2
11/20/20 4:00	11/21/20 3:00	10,261,894	1117	269.7	1.4
11/20/20 5:00	11/21/20 4:00	10,182,453	1124	301.2	1.6
11/20/20 6:00	11/21/20 5:00	9,923,769	1312	341.3	1.8
11/20/20 7:00	11/21/20 6:00	9,803,996	2657	406.9	2.2
11/20/20 8:00	11/21/20 7:00	9,700,539	3942	473.2	2.5
11/20/20 9:00	11/21/20 8:00	9,440,199	5942	566.9	3.0
11/20/20 10:00	11/21/20 9:00	9,223,890	291	567.6	3.1
11/20/20 11:00	11/21/20 10:00	8,788,374	171	565.6	3.0
11/20/20 12:00	11/21/20 11:00	8,282,947	230	565.8	3.0
11/20/20 13:00	11/21/20 12:00	7,951,427	229	565.8	3.0
11/20/20 14:00	11/21/20 13:00	7,803,859	250	566.0	3.0
11/20/20 15:00	11/21/20 14:00	7,565,915	193	566.1	3.0
11/20/20 16:00	11/21/20 15:00	7,417,302	183	566.2	3.0
11/20/20 17:00	11/21/20 16:00	7,265,664	190	566.3	3.0
11/20/20 18:00	11/21/20 17:00	7,036,501	255	563.0	3.0
11/20/20 19:00	11/21/20 18:00	6,309,557	259	540.9	2.9
11/20/20 20:00	11/21/20 19:00	5,568,570	245	540.4	2.9
11/20/20 21:00	11/21/20 20:00	4,840,993	230	540.5	2.9
11/20/20 22:00	11/21/20 21:00	4,117,542	222	534.5	2.9
11/20/20 23:00	11/21/20 22:00	3,441,673	213	526.7	2.8
11/21/20 0:00	11/21/20 23:00	2,915,817	203	524.6	2.8
11/21/20 1:00	11/22/20 0:00	2,281,787	194	514.4	2.8
11/21/20 2:00	11/22/20 1:00	1,603,450	188	443.9	2.4
11/21/20 3:00	11/22/20 2:00	1,069,809	181	360.9	1.9
11/21/20 4:00	11/22/20 3:00	790,936	175	308.2	1.7
11/21/20 5:00	11/22/20 4:00	627,823	169	276.6	1.5
11/21/20 6:00	11/22/20 5:00	442,332	166	234.8	1.3